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**Emotional processing and therapeutic change in depression: A case study**

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### Abstract

The association between clients' higher capability of emotional processing and good therapeutic outcome has been consistently observed in different therapeutic approaches. Despite previous studies that have reported an association between emotional processing and pre- to post-therapy change in symptoms, the session-by-session relation between emotional processing and therapeutic change needs further research. The current study explored, in a good-outcome case of depression, the session-by-session longitudinal association of the level of emotional processing with (1) clinical symptoms and (2) type of emotions aroused (adaptive or maladaptive). Using a time-series analysis, we observed a strong negative association between the intensity of clinical symptoms and the level of emotional processing in the same session,  $r = -.71$ ,  $p < .001$ , but a nonsignificant association between emotional processing and the symptoms in the preceding session,  $r = -.37$ ,  $p = .101$ , and the next session,  $r = -.29$ ,  $p = .180$ . During the increase in the level of emotional processing, we observed a change in the type of emotions aroused, from maladaptive to more adaptive. The results support that emotional processing is associated with therapeutic change, although not necessarily precedes such change, at least from one session to the next. Since it is an exploratory study, the results must be interpreted carefully.

*Keywords:* emotional processing; clinical symptoms; transformation from maladaptive to adaptive emotions; humanistic-experiential approaches; depression.

### Clinical Impact Statement

**Question:** The current case-study explored the session-by-session relation between emotional processing and therapeutic change in depression. **Findings:** We observed that (1) a lower intensity of clinical symptoms was associated with the achievement of higher levels of emotional processing during the same session, and (2) the increase in the levels of emotional processing was associated with

the change from maladaptive to more adaptive emotions. **Meaning:** Therefore, (1) the intensity of symptoms in the beginning of a given session may inform the therapist about the clients' capability to process their emotions, and (2) the level of emotional processing achieved may hint at the gradual change of a client's depressive scheme. **Next Steps:** Further research is needed to support these findings.

### **Emotional processing and therapeutic change in depression: A case study**

The way clients process their emotional experiences and how this processing contributes to therapeutic change has received renewed interest in psychotherapy research (Baker et al., 2012; Elliott, Greenberg, Watson, Timulak, & Freire, 2013; Foa, Huppert, & Cahill, 2006; Greenberg, 2010; Whelton, 2004). In different therapeutic approaches, the achievement of a high capacity for emotional processing during therapy has been associated to good outcome (Baker et al., 2012; Greenberg & Watson, 2006; Whelton, 2004).

Although previous studies found a relationship between higher levels of emotional processing and greater symptomatic improvement from pre- to post-therapy, it is not yet clear whether those higher levels of emotional processing are associated with the session-by-session improvement. Such a longitudinal analysis would be relevant to clarify and provide a more comprehensive understanding of the role of emotional processing as a variable associated with gradual improvement during therapy. In the current article, we will explore in a good-outcome case of depression whether these variables are, as theoretically expected, associated throughout therapy. Consistent with the model of theory-building case studies (Stiles, 2015) the degree of congruency between our observations and the theoretical expectations may increase confidence in or suggest modifications to current assumptions about the contribution of emotional processing to therapeutic change in depression.

### **Emotional processing**

The concept of emotional processing was first introduced in the context of behavioral approaches, mainly to explain the effect of exposure in anxiety disorders (Foa, Rothbaum, & Furr, 2003; Goldfried, 2003; Whelton, 2004). For these approaches, successful emotional processing involved the activation of the dysfunctional emotion and the gradual reduction of its intensity during the exposure to the trigger stimulus (Rauch & Foa, 2006).

Later, humanistic-experiential approaches conceptualized emotional processing differently, giving it a prominent role in psychotherapy. For these approaches, the impairment in the processing of emotions is associated to psychopathological conditions, such as depression (Greenberg, 2010; Greenberg & Watson, 2006). According to Greenberg and Watson (2006) in depression the experiential self is organized as unlovable or worthless and helpless or incompetent because of the activation of early schematic memories of being humiliated, abused, criticized, trapped, and/or abandoned. Once activated, depressive emotional schemes automatically produce maladaptive emotional responses to situations, impairing the person's ability to process painful emotions (Greenberg & Watson, 2006). The therapeutic change involves promoting the client's capability to process their emotions, i.e., to be aware, to experience and make meaning of such emotions, and to transform the underlying emotional scheme into a more adaptive one (Elliott et al., 2013; Greenberg, 2010; Pos, Greenberg, Goldman, & Korman, 2003). In this sense, emotions are a source of information that needs to be explored to create new meaning and change the maladaptive emotional experiences (Greenberg, 2010; Greenberg & Watson, 2006).

To humanistic-experiential approaches, emotional processing is a continuum of stages that goes beyond the arousal (and eventual decrease) of the emotional experience that typically occurs in traditional exposure methods. In these approaches, the creation of new meaning based on the information derived from aroused emotions is a key process associated with the achievement of higher levels of emotional processing and with the transformation of the depressive emotional scheme (Pos et al., 2003). To make sense of emotions, the client needs to cognitively explore the emotional information, integrating affect and cognition (Greenberg, 2010; Greenberg & Pascual-Leone, 2006; Whelton, 2004). In sum, for humanistic-experiential approaches, emotional processing broadly involves (1) being aware of emotions, (2) arousing emotions and tolerating live contact with them, (3) exploring to

make meaning of the emotional experience, and finally (4) transforming the emotional scheme, i.e., the maladaptive emotions that underlie and influence how the client feels, thinks, and behaves (Elliott et al., 2013; Greenberg, 2010; Greenberg & Watson, 2006).

The humanistic-experiential concept of emotional processing has been measured through different scales. In the current study, we used the concept as it is operationalized by the application of the Experiencing Scale (EXP; Klein, Mathieu-Coughlan, & Kiesler, 1986) to emotionally loaded segments of psychotherapy – Emotion Episodes (EEs; Greenberg & Korman, 1993; Korman, 1991). In previous studies, the rating of the EXP during EEs was an appropriate measure of the emotional processing continuum within emotional clinical relevant segments of therapy (e.g., Pos et al., 2003; Pos, Greenberg, & Warwar, 2009). The EXP is an observational scale that provides a cognitive-affective continuum of a client's engagement and exploration of inward experiences to make sense of those experiences, transform maladaptive emotions, and solve personal problems in a meaningful way (Klein et al., 1986). From lower to higher levels of the EXP, clients increase their ability to access feelings, to be in contact with them, to explore them, to create meaning from them, and to achieve new ones. Although its focus is on the emotional component, the EXP also considers the cognitive component involved both in the exploration of inner experiences to create new meaning and to transform emotions, and in the coherent integration of those experiences into the self.

### **Emotional processing and symptomatic improvement**

The facilitation of in-session emotional processing, as assessed by the EXP, has been recognized as a promoter of therapeutic change (Elliott et al., 2013; Greenberg, 2010; Greenberg et al., 2007). Several studies on emotion-focused therapy (EFT) and client-centered therapy found that the achievement of higher levels on EXP during psychotherapy

predicts better outcomes in depression (Goldman, Greenberg, & Pos, 2005; Pos et al., 2003, 2009; Pos, Paolone, Smith, & Warwar, 2017). These results are not limited to humanistic-experiential therapies. In cognitive-behavioral therapy (CBT), higher levels on EXP was predictive of a greater decrease in symptoms from pre- to post-therapy (Watson, McMullen, Prosser, & Bedard, 2011), and in both CBT and psychodynamic-interpersonal therapy for depression, good-outcome cases presented higher levels of emotional processing than poor-outcome cases (Rudkin, Llewelyn, Hardy, Stiles, & Barkham, 2007). More importantly, a meta-analysis of 10 studies and 406 clients using different psychotherapeutic approaches found that the level of EXP achieved was a significant outcome predictor at the end of treatment, with a small to medium effect size ( $r = -.19$ ; Pascual-Leone & Yeryomenko, 2016).

Although there is evidence of the association between emotional processing and therapeutic outcome, previous studies have not clarified whether there is a session-by-session association between the increase in the level of emotional processing and the decrease in symptom intensity throughout therapy. Since those studies were focused on the contribution of emotional processing to pre- to post-therapy change in symptoms, their design did not include a longitudinal assessment of variables, namely, (1) they did not consider session-by-session measurements of clinical symptoms, and (2) emotional processing was assessed in a reduced number of sessions sampled from the entire treatment (usually, 2 to 3 sessions per case). Leading process-outcome researchers (e.g., Crits-Christoph, Gibbons, & Mukherjee, 2013) point out that ignoring the session to session variability and analyzing only a few sessions of the therapeutic process, may result in the generalization of unrepresentative results. Thus, they recommended that longitudinal studies be carried out to avoid this potential source of bias.

To the best of our knowledge, no studies have been carried out to explore the relationship between emotional processing and symptoms change on a session-by-session

basis. Only a recent study in psychodynamic therapy (Fisher, Atzil-Slonim, Bar-Kalifa, Rafaeli, & Peri, 2016) has explored the longitudinal association between the clients' level of emotional engagement in therapy (a process related to, but distinct from emotional processing) and their functioning, observing a bidirectional relation between variables. Although emotional engagement is a less comprehensive process (EXP considers emotional engagement and a cognitive component) and has been assessed using a retrospective self-report measure (EXP is an observational measure), those results suggest a more complex (non-unidirectional) relation between variables than suggested in previous studies. As such, further clarification of the session-by-session patterns of association between emotional processing and symptoms may provide a more comprehensive and accurate understanding of the role of emotional processing on the gradual improvement in depression.

### **Emotional processing and change from maladaptive to adaptive emotions**

For humanistic-experiential approaches, the transformation of the emotional scheme is the ultimate stage on the continuum of emotional processing. The increase in the clients' capability to process their emotions contributes to transforming the depressive emotional scheme, resulting in the emergence of new and more adaptive emotional responses to daily situations (Greenberg, 2010; Greenberg & Watson, 2006).

Based on the clinical distinction of types of emotions, Greenberg (2010) described a three-step sequence involved in the change of the maladaptive emotional experiences: secondary maladaptive emotions evolve to primary maladaptive emotions, and then to primary adaptive emotions. Secondary maladaptive emotions, such as worthlessness, are secondary reactive responses to primary emotions (e.g. sadness) that are perceived as threatening or overwhelming; and they need to be transformed in order to make it possible to access primary emotions, the first fundamental responses to situations (Greenberg, 2010;

Greenberg & Watson, 2006). Primary adaptive emotions refer to immediate responses to situations that mobilize the person for adaptive actions, while primary maladaptive emotions trigger dysfunctional action tendencies and cognitive processes that interfere with a person's adaptive functioning (Greenberg, 2010). For instance, primary maladaptive shame can be replaced by primary sadness, assertive anger, self-forgiveness, and self-worth (Greenberg & Watson, 2006). Primary adaptive emotions need to be accessed to symbolize their information, which is essential for the enhancement of the level of emotional processing and to change the depressive emotional scheme (Greenberg, 2010; Greenberg, Auszra, & Herrmann, 2007; Greenberg & Watson, 2006; Pascual-Leone & Greenberg, 2007). In this sense, accessing adaptive emotions such as anger to replace unfairness or sadness for what was lost is important to ensure the self-capacity to be loved and to achieve self-worth (Greenberg & Watson, 2006).

Supporting this theoretical background, Herrmann, Greenberg, and Auszra (2014) found that a high frequency of primary emotions during the therapeutic working phase and a high frequency of change from maladaptive to adaptive emotions are predictors of good outcome. However, to sustain the theoretical claim that the increase in the clients' capability to process their emotions is associated to the change from maladaptive to more adaptive emotional responses, we still need to explore this relationship further.

### **Aims**

This research consists of an intensive case study analysis of a good-outcome case of depression treated with EFT (Elliott, Watson, Goldman, & Greenberg, 2004; Greenberg, 2010; Greenberg & Watson, 2006) and aims to explore if emotional processing is longitudinally associated with the gradual therapeutic change in depression. The first specific aim was to explore the session-by-session associations between the levels of emotional

processing and the intensity of symptoms. The second aim was to explore the relationship between the increase in the levels of emotional processing and the change in the type of emotional responses (adaptive or maladaptive) aroused throughout therapy.

## Method

### Participants

**Client.** Elizabeth (fictional name) was a Portuguese woman in her early forties with low levels of both education and socioeconomic status. She was divorced and lived with her three children. Elizabeth participated in the ISMAI Depression Study (Salgado, 2014), a clinical trial that compared the efficacy of EFT and CBT in the treatment of major depression (outcome study). The inclusion criteria for the clinical trial were a diagnosis of major depressive disorder, no medication, and a Global Assessment of Functioning above 50. The exclusion criteria were (1) currently using medication; (2) a current or previous diagnosis with one of the following DSM–IV Axis I disorders: panic, substance abuse, psychosis, bipolar, or eating disorder; (3) diagnosis of one of the following DSM–IV Axis II disorders: borderline, antisocial, narcissistic, or schizotypal; or (4) a high risk of suicide. At baseline assessment, Elizabeth received the diagnosis of mild major depression and she was randomly assigned to the EFT treatment. She received her treatment in the psychotherapeutic lab at ISMAI during 16 therapeutic sessions. Elizabeth consented to have her sessions videotaped, which was obtained after she had been informed about the aims and procedures of the clinical trial and about the further use of the collected data in process-outcome studies (such the current study that demanded qualitative analyzes of the level of emotional processing and the type of emotions aroused throughout sessions). The ethical principles of both the American Psychological Association and the Order of Portuguese Psychologists were followed.

Elizabeth's case was randomly chosen from EFT good outcome cases (N=18) according to the Beck Depression Inventory-II (BDI-II; translated and validated to the Portuguese population from Beck, Steer, & Brown, 1996 by Coelho, Martins, & Barros, 2002). It was considered a recovered and reliably changed case since (1) in the last session the total score was below the cutoff point of 13 (BDI-II scores = 0), and (2) the change from pre-test to post-test was higher than the reliable change index (RCI; Christensen & Mendoza, 1986; Jacobson & Truax, 1991) of 7.75 ( $\Delta$  BDI-II scores = 31).

Elizabeth's core issues were related to experiencing feelings of worthlessness and of being an unlovable person. First, she felt that she failed as a mother since she got divorced and could not provide her children with the traditional family she had idealized. Because of her early experience as a victim of her father's intimate violence, she had the main goal of providing a nonviolent and supportive family for her children. Although she got divorced to avoid a violent family environment for her children, she believed that not providing her children with the presence of a father meant that they would be ultimately unhappy. Second, she felt unlovable and rejected by others, mostly by her critical and dismissive father and her ex-husband, making her question her self-worth and her ability to be loved.

**Therapist.** Elizabeth's therapist was a female doctorate in clinical psychology who was in her early thirties. She had 9 years of experience as a psychotherapist and had been trained in EFT during the prior 4 years. The therapist received weekly supervision.

## **Therapy**

EFT is an integrative humanistic-experiential therapy that incorporates techniques from Person-Centered and Gestalt approaches (Greenberg, 2010; Greenberg & Watson, 2006). According to EFT, emotions play a unique role in the human experience, contributing both to adaptive and maladaptive functioning (Elliott et al., 2004; Greenberg, 2010;

Greenberg & Watson, 2006). In depression, clinical problems are associated with maladaptive emotional processing, and therapy aims to solve those difficulties through specific emotion-evocative therapeutic tasks (Watson & Bedard, 2006). The goal of those experiential strategies is to promote access to the depressive emotional scheme and to enhance the level of emotional processing, facilitating the change in the maladaptive scheme, and the consequent experiencing of new and more adaptive emotions (Greenberg & Pascual-Leone, 2006). According to this approach different and opposing self-aspects or voices compose the self, and poor or disturbing communication between them causes emotional pain, impairing access to adaptive emotions and the resolution of personal problems (Elliott et al., 2004). Thus, therapeutic tasks facilitate contact between the opposing voices or parts of the self. Throughout Elizabeth's treatment, the prevailing experiential tasks used were the two-chair dialogue with her critical and blaming internal voice and the empty-chair dialogue with her father and ex-husband regarding unfinished business.

### **Process Measures**

**Emotion Episodes (EEs).** An EE (Greenberg & Korman, 1993; Korman, 1991) is an emotionally loaded segment of psychotherapy in which the client expresses an emotion (e.g., sadness) or an associated action tendency (e.g., crying) in response to a situation or context (e.g., relationship breakup). According to the emotional response (emotion or action tendency) presented in the EEs, these are categorized into six basic emotions: EE of Love, EE of Joy, EE of Fear, EE of Anger, EE of Sadness, and EE of Guilt/Shame (EE Manual; Korman, 1991). Since the client's emotional scheme underlies the activation of specific emotional responses to situations (Greenberg & Korman, 1993), changes in the aroused emotions regarding the same situation may indicate some transformation of the scheme.

Following the EE Manual (Korman, 1991), the coding of EEs involved: (1) identification in the client's speech of an emotional response towards a situation, context or event; (2) delimitation of the EE by tracking the client's speech back to where the situation or context relevant to the emotional reaction emerged and forward to where either the theme of the discourse or the emotion changed; and, finally, (3) categorization of the basic emotion of the EE according to the expressed emotional response (whenever an EE contained different basic emotions the rule was to categorize it according to the dominant one, based on clinical judgment). In prior studies the inter-rater agreement on the identification of EEs was strong (99%; Pos et al., 2003). Clinicians were able to discriminate between EEs and non-EEs in psychotherapy segments, suggesting an appropriate validity (Greenberg & Korman, 1993).

**Experiencing Scale (EXP).** The EXP (Klein et al., 1986) assesses the level at which the client is cognitively and emotionally involved in the processing of inward experiences through a 7-point ordinal rating scale. Namely, it assesses to what level a client focuses on, experiences, explores and reflects on information to create new meaning, transform emotional experiences, and solve personal problems in a meaningful way. Higher levels indicate higher emotional processing. At EXP level 1 clients describe their experience from an external perspective. At EXP level 2 clients are only behaviorally or intellectually involved with the described situation. At EXP level 3 clients describe external events, presenting feelings and personal reactions circumscribed to these events. At EXP level 4 clients shift to an inward focus, describing feelings, inner experiences and personal assumptions and perceptions. At this stage clients speak "from" instead of talk "about" their personal experience. At EXP level 5 clients present and explore hypotheses about their feelings, inner experiences and personal problems. At EXP level 6 they present a synthesis of vivid and accessible feelings to describe the achievement of personal problem resolution

and/or the transformation of meanings and emotional experiences. Finally, at EXP level 7 the new inner experiences and feelings are applied to a wider range of situations, resulting in clients' new and expansive understanding of themselves.

The rating of the EXP involved the identification of the EXP peak level, i.e., the highest level achieved during each EE (EXP Manual; Klein et al., 1986). In prior research the inter-rater reliability coefficients (Intraclass Correlation Coefficient – ICC) ranged from .76 to .91 and the rating–rerating correlation coefficient was approximately .80 (Klein et al., 1986). The EXP presented a moderate concurrent validity with the Observer-Rated Measure of Affect Regulation (Pearson's  $r = .44$ ; Watson et al., 2011).

### **Symptoms measure**

**Outcome Questionnaire 10.2 (OQ-10.2).** The OQ-10.2 (Lambert, Finch, Okiishi, & Burlingame, 2005) is a self-report inventory that assesses a client's general clinical symptoms. The 10 items (e.g., "I am satisfied with my life", "I feel blue") are scored on a scale ranging from 0 to 4. The total score ranges from 0 to 40, with higher scores indicating more intense symptomatic distress. The Portuguese version presented an adequate internal consistency (Cronbach's Alpha = .77) and test–retest reliability over a 1-week interval (Pearson's  $r = .74$ ) in the ISMAI Depression Study's sample (Salgado, 2014;  $N = 64$ ). The instrument presented a moderate concurrent validity with the BDI-II (Pearson's  $r = .51$ ).

### **Procedures**

#### **Process measurement**

**EEs. Judges' training.** The judges were two female PhD students of clinical psychology (first and third authors), both with previous training in EFT. One of the judges was an expert in the coding of EEs and provided the second judge with training based on the

EEs' Manual (Korman, 1991). The training procedures encompassed weekly meetings (2 h) over approximately 3 months, which included the following steps: (1) reading and discussion of the coding manual, (2) coding of all excerpts from the manual, and finally (3) coding of videotaped sessions from the ISMAI Depression Study's cases (not from Elizabeth's case). The last step was concluded when a good level of reliability was achieved between judges (Cohen's  $\kappa \geq .65$ ). **Reliability.** The judges were unaware of the evolution of the clinical symptoms (OQ-10.2 scores) of Elizabeth's case and performed an independent coding of the sessions (following their chronological order). Reliability was determined by comparing the judges' independent codification of the (1) presence/absence of EEs, and (2) the emotion in each EE. The inter-judge agreement for the presence/absence of the EEs was a Cohen's  $\kappa$  of .80 and for the emotions of EEs the Cohen's  $\kappa$  was .81. Disagreements were discussed afterwards to reach a consensus. **Data analysis.** For the final codification we computed the total frequency of EEs and the frequency of the EEs categorized in each of the basic emotions, both for the entire case and for each session.

**Adaptive or maladaptive EEs. Judges.** The judges were the same ones who previously coded the EEs. They were clinicians trained in EFT and familiarized with Greenberg's (2010) distinction between adaptive and maladaptive emotions. **Reliability.** Based on theoretical knowledge and clinical judgment, the judges performed an independent categorization of each EE (following their chronological order) as presenting adaptive or maladaptive emotions. The inter-judge agreement was excellent (Cohen's  $\kappa = .95$ ). Disagreements were discussed to reach a consensus. **Data analysis.** For the final codification we computed the frequency of the adaptive and maladaptive EEs of Love, Joy, Fear, Anger, Sadness, and Guilt/Shame, both for the entire case and for each session.

**EXP. Judges' training.** A clinical psychologist with a doctoral degree, expert in the EXP and in EFT, trained two judges, namely, a female PhD student (first author) and a master's degree student in clinical psychology. The training was based on the EXP Manual (Klein et al., 1986) and encompassed weekly meetings (2 h) over approximately 4 months. It included 3 steps: (1) reading and discussion of the rating manual, (2) rating of excerpts from the manual, and finally (3) rating on previously delimited EEs in ISMAI Depression Study's videotaped sessions (not from Elizabeth's case). This last step was completed when a good reliable index was achieved between the trainees' and the expert judge's ratings (ICC [2,1]  $\geq .65$ ). **Reliability.** Both judges were unaware of the evolution of the clinical symptoms (OQ-10.2 scores) of Elizabeth's case and performed an independent rating of the EXP of each previously identified EE (following the chronological order of the sessions). The inter-rater agreement was based on their ratings of each EE and presented a good reliability index (ICC [2,2] = .85). Disagreements were discussed to reach a consensus. **Data analysis.** The final EXP ratings were averaged for each session based on a varied number of EEs.

### **Symptoms measurement**

The OQ-10.2 was filled in by the client at the beginning of all 16 therapeutic sessions, at the assessment and at the 1-month follow-up session. Since it is an appropriate measure of changes in general clinical symptoms over short time periods, it will be used in the current study as a session-by-session measure of symptoms.

### **Statistical analysis**

The longitudinal association between the client's emotional processing and the clinical symptoms was computed based on bootstrapping methods using the simulation modeling analysis software (SMA; Borckardt & Nash, 2014). SMA was designed to

statistically account for autocorrelated time-series data streams of single-case designs (i.e., several observations of the same variable throughout the sessions). Pearson rho tests based on SMA cross correlation models were computed to explore multiple temporal associations between variables. Since it is an exploratory study, we compared the strength of the association between the level of emotional processing in one session and the intensity of clinical symptoms in the same session (lag 0), the subsequent session (lag +1), and the preceding session (lag -1). We used the Bonferroni-adjusted alpha level of .016 (.05/3).

## Results

The entire case presented 132 EEs, with an average of 8 EEs per session (range from 5 to 12). Elizabeth presented a growing tendency of her ability to process her emotions across therapy, as the EXP average level in session 1 ranged from 3 to 4 (EXP average = 3.5) and in the last session ranged from 5 to 6 (EXP average = 5.5).

### Emotional processing and clinical symptoms

The evolution of the client's level of emotional processing (EXP average levels per session) and the intensity of clinical symptoms (OQ-10.2 scores) throughout therapy are presented in Figure 1. Whereas the EXP level tended to increase, the intensity of the clinical symptoms decreased, achieving lower scores. Regarding symptoms some setbacks happened (session 4, 7, 15), but these peaks were progressively lower throughout therapy. Pearson's correlation coefficient indicated a strong, significant negative association between the EXP level and the OQ-10.2 scores in the same session (lag 0),  $r = -.71, p < .001$ . We found nonsignificant negative associations between EXP levels and OQ-10.2 scores in the subsequent session (lag +1),  $r = -.29, p = .180$ , and the preceding session (lag -1),  $r = -.37, p = .101$ .

**Emotional processing and type of emotions aroused (adaptive or maladaptive)**

During the entire case the most frequent EEs were of Joy (N= 54), Anger (N= 37), Guilt/Shame (N= 20), and Sadness (N= 12). The EEs of Fear (N= 9) presented a lower frequency and no EEs of Love were identified (Figure 2a). All EEs of Guilt/Shame were categorized as maladaptive, while all the EEs of Joy and Sadness were categorized as adaptive. The EEs of Anger were both categorized as adaptive (n= 19) and maladaptive (n= 17; Figure 2b). Most of the EEs of maladaptive Anger (n = 14) were identified within the first 5 sessions. After session 5, EEs of adaptive Anger (n = 15) were identified more often. Regarding the EEs of Fear, only one was categorized as maladaptive (session 6). We decided not to further explore the EEs of Fear since these presented a residual frequency and in its majority were adaptive responses to a restricted situation not related to the client's main issues – the illness of her young child (session 7).

Overall, as the EXP levels increased throughout treatment, the most frequent EEs also changed, i.e., the initial EEs of maladaptive Guilt/Shame (session 1 to 4) were replaced by EEs of maladaptive Anger and adaptive Sadness (session 5), and finally by EEs of adaptive Anger and Joy (session 6 to 16).

***Session 1 to 4***

The EEs of maladaptive Guilt/Shame were prevalent in the initial sessions, being associated with Elizabeth's perception of failing as a mother. The client predominantly presented EXP levels 3 and 4 in those sessions.

At EXP level 3 Elizabeth mainly described situation in which she identified the negative impact her decision to get divorced had on her children. Although she enriched those descriptions with brief references to the inward impact of such situations (spontaneously or at the request of the therapist), her focus was on the events themselves. In

the following excerpt<sup>1</sup> rated as EXP level 3 (EEs of Guilt/Shame; session 1), the client described a situation with her son and made a brief reference to her feelings of guilt.

**Elizabeth:** *My son told me “my father will make lots of money and will come back home” and I said to him “he can’t come here, son” [...]. Perhaps my son will blame me because his father is trying to reconnect (cries). It makes me feel so guilty.*

The therapist’s interventions, namely, the request for further inner elaboration (e.g., “How’s that feeling of guilt?”) and the empathic conjectures (e.g., “It saddens you”), seems to have promoted the redirection of the client’s focus to her inner experiences associated with feelings of Guilt/Shame. Instead of describing the external events, at EXP level 4 the client focused on her experience of failure, clarifying how this was felt for her. The following excerpt (EEs of Guilt/Shame; session 1) illustrates a detailed description of the client’s inner experience and feelings following the therapeutic intervention.

**Elizabeth:** *I failed, I deprived my children of an important person [father] in their growth.*

**Therapist:** *It’s so painful.*

**Elizabeth:** *It’s hurting me so much. I feel so guilty. It’s a terrible feeling, gives me a great desire to do nothing, to not fight for anything. I just wanted to sleep today and wake up tomorrow again with twenty years and have the chance to change everything [...]*

From session 1 to session 4, the average EXP level presented a trend of constant growth. Elizabeth reached EXP level 5 more frequently, i.e., she defined and explored internally her problem of failing as a mother. In the following excerpt (EE of Guilt/Shame; session 4) the client initially reached EXP level 4 when she accessed the internal conflict between two different parts of herself: the need to protect her children from a disturbed

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<sup>1</sup> The clinical vignettes were translated from Portuguese.

family and an inner pressure to ensure her children's happiness by maintaining their connection to their father. To expand the client's awareness about her feelings of guilt, the therapist promoted the exploration of the emotional impact of this issue and its association with her childhood experiences. Elizabeth achieved EXP level 5 when she hypothesized that her feelings of guilt resulted from the non-achievement of her cherished goal of providing her children a happy childhood. Through this meaning making, she caught her first glimpse of the idea that the presence of her children's father might not guarantee that they would be happier, since she had experienced the negative impact of having a dismissive father.

**Elizabeth:** *For me, it is very hard to raise my children alone, but if I was still with their father this would be harder because he was destroying everything I did. But sometimes that lady there (critical part of herself) tells me: "how can you be so sure that he was not going to change?" This is terrible! (cries) I've given so many opportunities to him and he never changed, why would he change now? But I believe I'm stealing a happy childhood from them. (Therapist: It's so painful.) This drives me crazy, it's an unbearable guilt and powerlessness. It's a feeling of worthlessness and failure.*

**Therapist:** *You've dreamed of a family so many years. How was the family you dreamed of?*

**Elizabeth:** *I dreamed of a family with a husband who would like to be with our kids.*

**Therapist:** *You dreamed about a father who cares.*

**Elizabeth:** *Exactly, because I already had had a dismissive father and it was horrible!*

**Therapist:** *It is painful for you to realize that you can't give your children something that you've also wanted for you but didn't have.*

**Elizabeth:** *Of course. It is a feeling of guilt due to a failed promise I made to myself "to give my children a better father than I had". Somehow, I got it, but to give them a different father from my own, I had to get my children away from their own father. [...]*

**Therapist:** *The inner child who dreamed of this family, what would she tell you?*

**Elizabeth:** *She would tell me: “you have destroyed all my dreams”. I couldn’t do it! (cries) I feel so guilty. I destroyed everything I wanted for my children. They deserved...*

**Therapist:** *“Your children are not happy!”* [voice of the critical part of the client]

**Elizabeth:** *They are happy, but of course they miss a part.*

**Therapist:** *The same that you would’ve felt if you had not had the presence of your father.*

**Elizabeth:** *If I had not had my father I would be a much confident and happier person. I wish I hadn't had a father. Maybe my kids will prefer the life they have to the life they could take.*

### **Session 5**

After session 4, the high frequency of EEs of maladaptive Guilt/Shame decreased and became absent after session 8. In session 5 the EEs of Anger were the most frequent.

Although the EEs of maladaptive Anger already emerged in the previous sessions, in session 5 they emerged together with EEs of adaptive Sadness.

The EEs of maladaptive Anger were mainly associated with Elizabeth’s father’s and ex-husband’s criticism to her value as a mother and as a person. During the expression of this rejecting anger, Elizabeth reached the first EXP level 6, presenting both a new and enriched self-experience and the inner work that fostered the development of this change. In the following excerpt (EE of maladaptive Anger), extracted from the beginning of session 5, the client described how her feelings of worthlessness were transformed into rejecting anger regarding her father and her ex-husband. She realized that what prevented the accomplishment of her inner child’s dream of having a happy family was not her fault, changing her feelings of guilt.

**Elizabeth:** *In the last session we have stirred up the destruction of the dreams of my inner girl who has never forgiven me. I didn't want to see her because I know it would hurt me.*

**Therapist:** *Because it is very painful to think that you did not accomplished her dream.*

**Elizabeth:** *Yes, but now I'm sure I have no reason to continue to blame myself. Perhaps what has changed from the last session is that I used to feel rejected, humiliated and dismissed, and it was transformed into contempt, detachment, revolt and anger. I feel a lot of anger for them [father and ex-husband] because they helped destroy my inner girl's dream. I want them to suffer for all the pain they've caused me.*

**Therapist:** *You've always felt that they devalued, rejected, and despised you, feeding that part of you that criticizes and blames yourself for having failed.*

**Elizabeth:** *Now, I'm feeling that differently. I'm relieved, I don't blame myself. This doesn't mean that I didn't have any responsibility, but that heavy guilt that it had on me is gone. I realized that they were the main culprits for destroying my inner child's dreams.*

In session 5, after some of the EEs of maladaptive Anger, Elizabeth described EEs of adaptive Sadness regarding the same issue. Specifically, the client aroused emotions of Sadness for what she had lost in her childhood and for the failed relationship with her father and ex-husband. In the following excerpt, in response to the therapist's efforts to internally focus the client, she differentiated her feelings of sadness. Elizabeth reached EXP level 5 when she hypothesized that her feelings had resulted from (1) not having a father who valued her, and (2) having a changeless relationship with him.

**Elizabeth:** *It is discouraging. My father doesn't realize that someday it will be too late!*

**Therapist:** *Realizing that he and your relationship with him is not going to change is painful.*

**Elizabeth:** *Yes. It doesn't make me guilty or angry, but sorry. It saddens me the words I have to say to a person who should be one of the most important persons in my life.*

**Therapist:** *It's like you still have some hope that he could be the father you needed.*

**Elizabeth:** *Maybe that's what makes me sad. The hope that he would change was always there for me, but now it is very, very, very tiny. I know our relationship is not going to change. It saddens me not to have a loving and supporting father.*

### ***Session 6 to session 16***

As Elizabeth moved towards the end of therapy, the EXP average level increased between 5 and 6. She more frequently achieved EXP level 6 in the EEs of Anger and Joy.

At this stage of the therapy, the EEs of Anger were the most frequent only in session 15, being associated with a quarrel between the client and her eldest daughter on the eve of the session. In the remaining sessions, these EEs were the second most frequent (second to Joy).

After session 5, the frequency of EEs of maladaptive Anger declined, being replaced by EEs of more adaptive Anger. In these EEs of adaptive Anger, the client draws a clearer identification and assertion of her own rights. In the following excerpt rated with EXP level 6 (session 6), Elizabeth felt frustrated with her father's behavior while deciding not to get involved in his problem. Encouraged by the therapist's internally focused interventions, she identified the emotional impact of her new behavior and described the inner work underlying this change. The client realized how her involvement with other people's problems caused her feelings of worthlessness. She assumed that she is someone who likes to take care of others but must do it in a different way to protect herself. The statement of the client's personal value and rights resulted in feelings of self-confidence and empowerment.

**Elizabeth:** *Instead of bringing people closer to him [her father], he pushes them further away. I'm frustrated about that, but I know it's not my business, so I turned away.*

**Therapist:** *And do you feel guilty?*

**Elizabeth:** *No. I don't feel guilty anymore. I spent a lot of time thinking about others, feeling sorry for others and forgetting and ignoring myself. I have a life and I deserve to enjoy it.*

**Therapist:** *You deserve time for yourself, to take care of yourself.*

**Elizabeth:** *Yes, and I'm not being selfish. I deserve it, I've always deserved it! I used to think I had the responsibility to change the world and the people, which made me feel worthless.*

**Therapist:** *You felt the weight of the world on your shoulders.*

**Elizabeth:** *Yes, it was a burden. I'm a person who likes to help others, but I'm not going to put them first. It is enough! I must accept it or walk away to protect myself. (pause) Protect myself makes me feel confident and stronger. I deserve it!*

From session 6 to the last one, the EEs of adaptive Joy were the most frequent. The client usually achieved higher EXP levels (EXP level 4, 5 and 6) in these EEs. These EEs were related to Elizabeth's accomplishment of her self-worth (1) as a mother, since she realized that she did in fact provide a happy childhood to her children, and (2) as a person, since she recognized herself as a more able, stronger and lovable person. The next clinical excerpt (session 12) rated as EXP level 6 referred to the client's current relationship with her inner child, who dreamed of raising a different, happy family from the one she had. The client's awareness that she was actually providing a happy childhood to her children allowed her to both be at peace with her inner child and recover happy memories of her own childhood. She explored and elaborated on the change in the experience of her inner child, accessing to the meaning and emotional impact of such transformation. Elizabeth's awareness of herself as responsible for the achievement of her cherished goal resulted in feelings of self-pride and empowerment, changing her previous self-experience of worthlessness.

**Elizabeth:** *When I saw my inner girl for the first time she was in a confused and dark scenario. Now she is happy and quiet at my grandparents' house, where I had the best moments of my childhood.*

**Therapist:** *What do you think that helped your inner girl to go over there?*

**Elizabeth:** *Now, I know I provided the best family to my kids, where they feel safe and happy. Perhaps my peace today is reflected in her peace. Maybe that's it.*

**Therapist:** *Now she can be peaceful and content. Does her peacefulness help you too?*

**Elizabeth:** *Seeing her like that gives me peace. That means that I haven't missed everything in my childhood. For me, if I didn't have a happy childhood, I wouldn't have anything in my life. But I was happy with my grandparents, only that was obscured by what went wrong.*

**Therapist:** *Do you think your peace let her go there and she also gave you more peace?*

**Elizabeth:** *It gives me the sense that I gave her enough to stop crying. So, instead of feeling guilty for not accomplishing what she wanted, I'm glad she's happy.*

**Therapist:** *"I helped her to find happiness". How does that feel?*

**Elizabeth:** *It's comforting, it's almost a trophy, "I got this!". I was afraid because I thought that I'd never get her out of that state because she suffered so many disappointments, but I did! I'm at peace with my inner girl. It's a feeling of accomplishment! I'm not a loser!*

## Discussion

The intensive study of Elizabeth's case was carried out to explore the humanistic-experiential assumption that the increase in the clients' capability of emotional processing is associated with successful therapeutic change in depression. More specifically, we aimed to explore the session-by-session association between the level of emotional processing achieved and the client's gradual improvement. According to Stiles' theory-building case studies perspective (2015), the comparison of our observations in the Elizabeth's case with the theoretical assumptions may increase confidence or suggest modifications to the theory. Thus, this case study may improve and extend the current knowledge on the role of emotional processing on therapeutic change in depression.

### *Emotional processing*

During the therapeutic process, Elizabeth enhanced her ability to process emotions. In the initial sessions, the client wavered between brief references to the inward and emotional impact of specific daily situations (EXP level 3), and a deeper focus on what it was like to be herself and how events were inwardly experienced by her (EXP level 4). As expected, this good-outcome case began with moderate levels of emotional processing (Watson & Bedard, 2006), i.e., she did not initiate therapy by refusing to get involved (EXP level 1) or presenting only a behavioral or intellectual involvement with her inner experiences (EXP level 2).

In the final sessions, Elizabeth achieved a consistent trend of higher emotional processing, exploring her inner experiences (EXP level 5), developing new feelings, meanings and experiential insight, and diluting her personal feelings of worthlessness (EXP level 6). This observation of a gradual increasing on the level of emotional processing is consistent with the previous results in good-outcome cases (e.g., Goldman et al., 2005; Pascual-Leone & Yeryomenko, 2017; Pos et al., 2003, 2009, 2017; Watson & Bedard, 2006).

### ***Emotional processing and clinical symptoms***

During Elizabeth's therapy, while the levels of emotional processing presented a trend of growth, the intensity of clinical symptoms decreased. The time-series analysis indicated that these variables were strongly and negatively associated in the same session (lag 0),  $r = -.71$ ,  $p < .001$ . The associations between emotional processing and symptoms in the subsequent (lag +1),  $r = -.29$ ,  $p = .180$ , and preceding session (lag -1),  $r = -.37$ ,  $p = .101$ , were found to be nonsignificant.

In the same session, the decrease of clinical symptoms was strongly associated with an increase in the level of emotional processing. This means that when Elizabeth initiated a session with a lower intensity of clinical symptoms, she achieved higher levels of emotional processing. On the other hand, when she started the session with more intense symptoms, she presented a lesser ability to process her emotional experiences. Therefore, the intensity of

clinical symptoms may influence the clients' capability to process their emotions during the same session. This association throughout therapy suggest that in good-outcome cases of depression, the reduction of symptoms may be related to an increase in the clients' ability to be aware, arouse, explore, make meaning, and transform their maladaptive emotions.

Although in Elizabeth's case the variables were synchronically associated, neither the negative association between the level of emotional processing with the next-session intensity in symptoms, nor the negative association between the intensity of symptoms with the next-session level of emotional processing were statistically significant. These results were not expected based on previous research that found in different samples of clients that the achievement of a higher level of emotional processing predicted a decrease in symptoms from pre- to post-therapy (Elliott et al., 2013; Goldman et al., 2005; Pascual-Leone & Yeryomenko, 2017; Pos et al., 2003, 2009; Watson & Bedard, 2006).

For Elizabeth, achieving higher levels of emotional processing in one session did not ensure a better clinical condition in the next session, while the intensity of symptoms assessed at the beginning of the session was strongly associated with the emotional processing during the same session. First, these results suggest that the session-by-session relationship between the level of emotional processing and the intensity of clinical symptoms may not be linear in Elizabeth's case. In a detailed analysis, we observed steeper variations throughout therapy in the intensity of symptoms than in the average level of emotional processing. Specifically, the decrease in the intensity of clinical symptoms showed clear setbacks throughout therapy, while the levels of emotional processing had a more steady and constant development. Thus, at an idiographic level, the theoretically expected benefits of achieving higher levels of emotional processing may not emerge necessarily in the following session. Additionally, achieving higher levels of emotional processing may not be translated in symptoms gains, as subsequent unexpected negative life events occurred. There were

unpredictable negative events between sessions (e.g., the illness of her child and a quarrel with her daughter at sessions 7 and 15, respectively) which apparently disturbed the client and may account for the sudden increase in the intensity of clinical symptoms. Therefore, Elizabeth's increased ability to process her emotions did not prevent her from feeling worse about negative life events in the next session. Instead, we hypothesized that it may have had a delayed effect on symptoms, i.e., that her increased capability to process her painful emotions may have reduced the symptomatic impact of next negative life events. Therefore, it could take longer than one session interval to have translation at the symptoms level. Last, these nonsignificant results may be due to the low number of observations ( $N = 16$ ), thus reducing the statistical power to detect effects.

Summarizing, this study suggests that in good-outcome cases of depression the level of emotional processing may be strongly dependent on the level of suffering reported by the client at the onset of the same session and it may not have a direct effect on symptoms in the next session.

***Emotional processing and type of emotions aroused (adaptive or maladaptive)***

As the levels of emotional processing increased throughout Elizabeth's case, we observed a transformation from maladaptive Guilt/Shame (session 1 to 4) to maladaptive Anger, adaptive Sadness (session 5), and finally to adaptive Anger and Joy (session 6 to 16). This change from maladaptive to more adaptive emotions seem to be largely consistent with the theoretical sequence of the emotional change proposed by Greenberg (2010).

During initial sessions (session 1 to 4), the level of Elizabeth's emotional processing increased from the brief contact with the emotional experience (EXP level 3) to the inward exploration of personal issues activating emotions of Guilt/Shame (EXP level 5). We hypothesized that such increased in the level of emotional processing resulted in the subsequent decline of the EEs of maladaptive Guilt/Shame and in the emergence of EEs of

Anger (session 5). Indeed, the client described the transformation of her feelings of failure into rejecting anger regarding her father and ex-husband (EXP level 6) after she had explored more deeply her feeling of Guilt/Shame.

These responses of maladaptive Anger, focused on the attack and rejection of her father and ex-husband, are expected to be the first step to change the client's negative self-evaluation (Pascual-Leone & Greenberg, 2007). Elizabeth's higher emotional processing of these feelings of Anger (EXP level 6) seemed to have been connected to the emergence of EEs of Sadness regarding the same issue (session 5). These emotional responses of Sadness were associated with what the client lost and will not achieve, mobilizing her to accept and let go of those unfulfilled needs (Greenberg & Watson, 2006). The client's awareness, arousing, exploring and reflecting on the meaning of that feelings of Sadness (EXP level 5) may have contributed to transform the maladaptive Anger into a more adaptive emotional response. In the late EEs of Anger (session 6 to 16), instead of being focused on her father and ex-husband, she accepted that they would not change and made a clear statement of her rights to be happy and protect herself from others' criticism (Greenberg, 2010).

Until the end of therapy, Elizabeth deeply explored those adaptive emotions of Anger. She described her new assertive behaviors, the inner work and the experiential impact of her process of change, namely, the experiencing of feelings of self-pride and empowerment (EXP level 6). Alongside this assertive statement (EEs of adaptive Anger), the EEs of adaptive Joy became the most frequent (session 6 to 16), mobilizing her to be congruent with her rights and needs (Greenberg, 2010). This transformation is theoretically expected. According to Greenberg and Watson (2006) accessing adaptive emotions such as anger to replace unfairness and sadness for the unfulfilled needs, ensures the self-capacity to achieve self-worth and to feel loved.

The emotional scheme underlies the activation of specific emotions, therefore changes in the aroused emotions regarding the same issue may suggest a transformation of the scheme (Greenberg, 2010; Greenberg & Korman, 1993; Greenberg & Watson, 2006). Specifically, the observed change in the Elizabeth's in-session aroused emotions suggest that her shame-based worthlessness scheme associated with her early experiences with her father was transformed and became more adaptive during therapy (cf., Greenberg & Watson, 2006). Since this changing to more adaptive emotions occurred during the increasing in the level of emotional processing, it seems to provide further support for the claim of humanistic-experiential approaches that emotional processing contributes to transforming the underlying emotional scheme, resulting in new and more adaptive emotions (Greenberg, 2010; Greenberg & Watson, 2006).

Contrary to our expectation, we observed a low frequency of EEs of Sadness (Greenberg & Watson, 2006). First, the absent of maladaptive EEs of Sadness (e.g., hopelessness) in the initial sessions, may have been masked by the high frequency of EEs Guilt/Shame. Sporadic emotional responses of Sadness may have been expressed along with emotional responses of Guilt/Shame, thus considered non-dominant during the EE. Second, instead of adaptive Sadness, accessing adaptive Anger for unfairness was more frequent in Elizabeth's case. This high frequency of EE of Anger may be associated with Elizabeth's specific issues. Since she was victim of a critical and dismissive father and ex-husband, Anger was an adaptive emotional response that mobilized her to a proactive affirmation and healthy entitlement, ensuring her self-capacity and self-worth (Greenberg & Watson, 2006; Pascual-Leone, 2009). Hence, accessing adaptive sadness, even with a low frequency, may have been productive for her acceptance and letting go of her unfulfilled needs of be loved by her father (Greenberg & Watson, 2006). Although this result may be due to this client's specific problems and idiosyncrasies, it suggests that in some cases of successful change of

depression the arousing of Sadness can have a low frequency.

### **Conclusion, limitations and further investigation**

Considering that this research is an exploratory case study, the results may be due to the client's idiosyncrasies, which prevents any generalization. However, the congruencies and discrepancies between our observations and the theory can be informative (Stiles, 2015).

First, the change from maladaptive to more adaptive emotions during the increase in the level of emotional processing was theoretically expected, strengthening the hypothesis that it may contribute to changes in clients' emotional responses and the underlying emotional scheme (Greenberg, 2010; Greenberg & Watson, 2006). Thus, a client's ongoing ability to process his or her emotions may hint at the gradual transformation of the client's depressive schema.

Second, instead of the level of emotional processing contributing to the subsequent intensity of symptoms (e.g., Elliott et al., 2013; Pascual-Leone & Yeryomenko, 2017; Pos et al., 2003, 2009), we observed that it was the intensity of the symptoms that may have influenced the level of emotional processing achieved during the same session. Thus, symptoms in a given session may provide information about the client's capability to emotionally process their experiences, allowing therapists to adjust their interventions. Specifically, favoring the use of strategies focused on promoting higher levels of emotional processing in sessions with less intense symptoms.

Future studies should address the relationship between emotional processing and symptoms in the following sessions, since the pattern observed may have resulted from: (1) idiosyncrasies of the case, (2) procedures of data analysis (i.e., the impact on symptoms may have been nonlinear or delayed), or (3) additional variables influencing the results.

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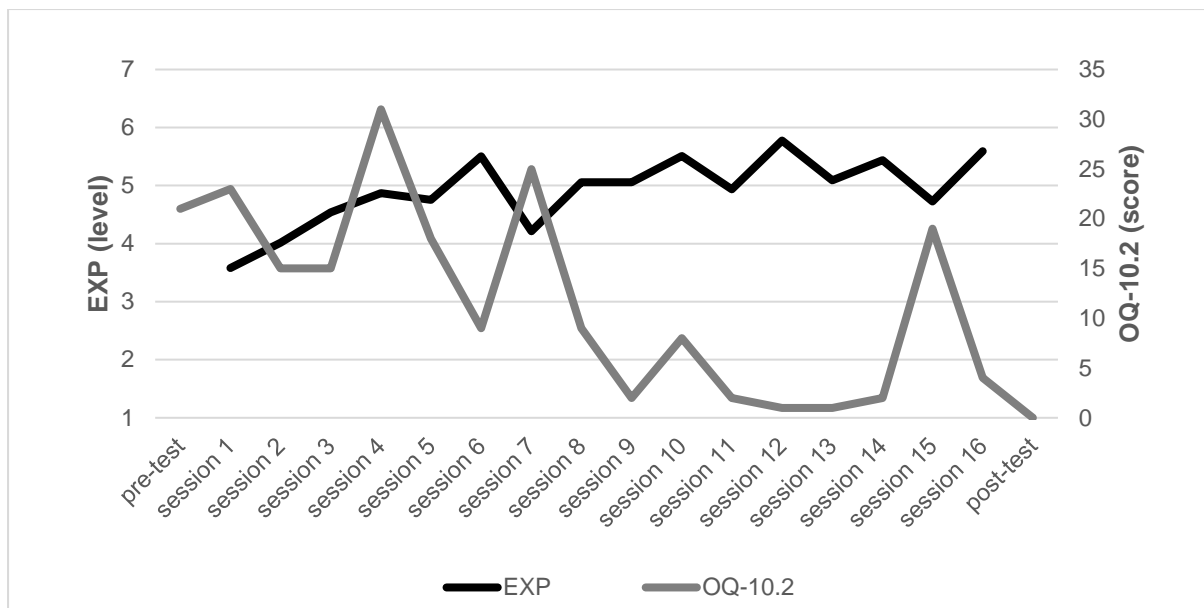


Figure 1. Average EXP level and OQ-10.2 scores throughout therapy.

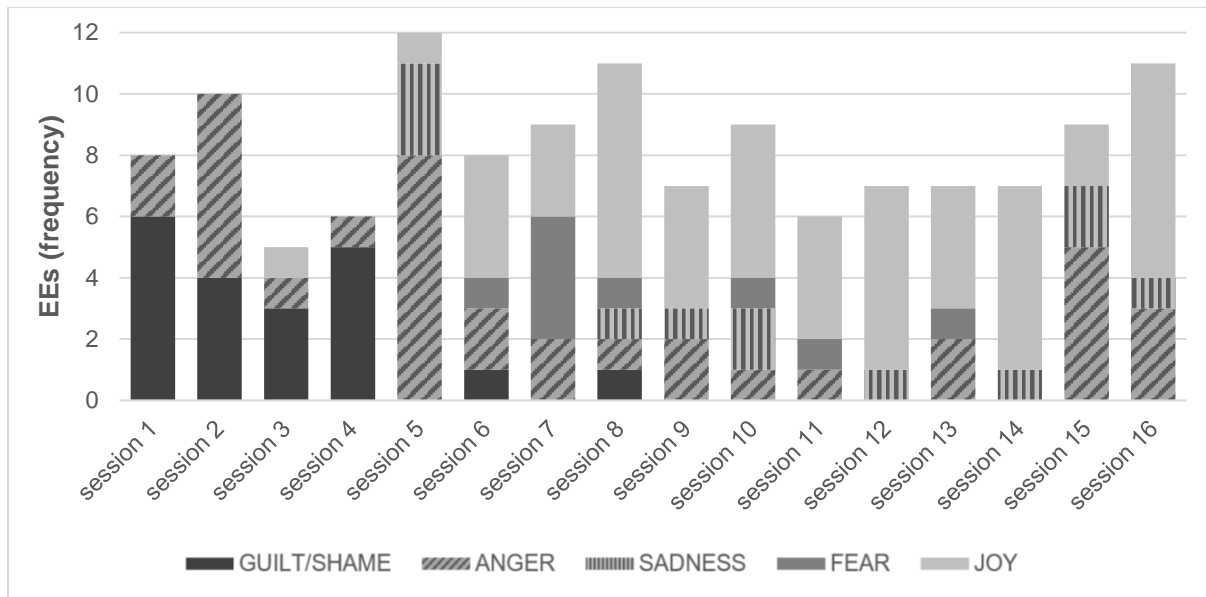


Figure 2a. Frequency of EEs of Guilt/Shame, Anger, Sadness, Fear, and Joy throughout therapy.

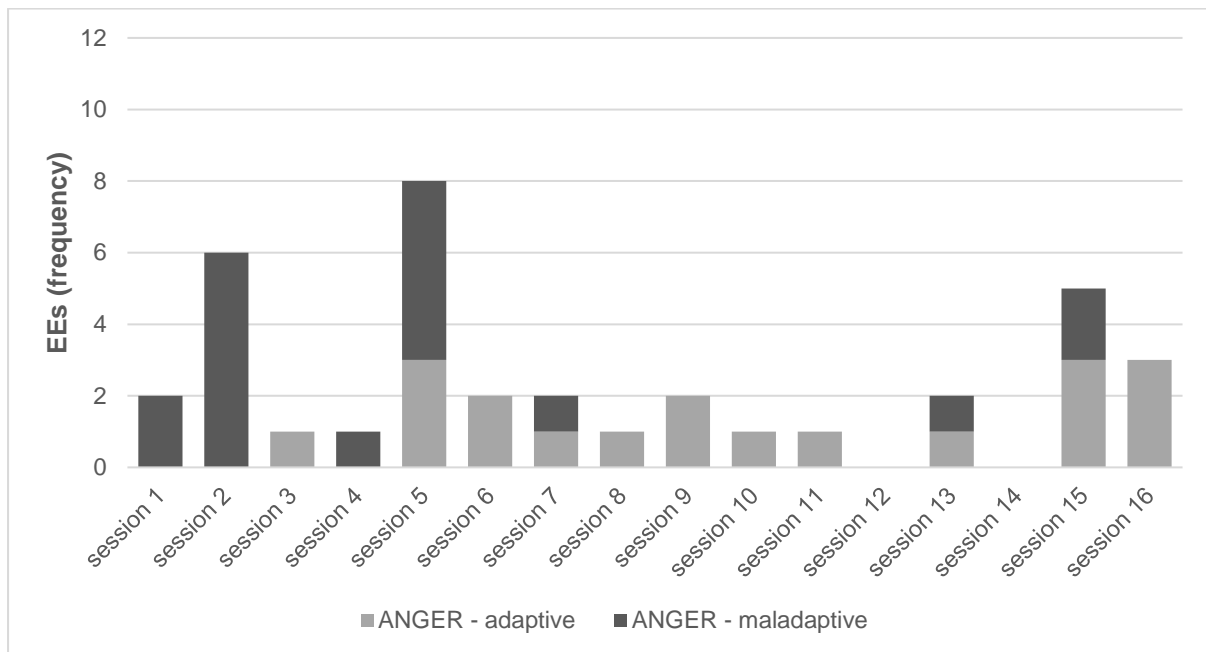


Figure 2b. Frequency of EEs of Anger categorized as adaptive and maladaptive throughout therapy.