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#### Into the wild, out of the woods: A systematic case study on facilitating emotional change

Manuscript IDIJOTCC-19-0002.R1Manuscript Type:Original ManuscriptEmotion-Focused Therapy, Individuals who committed Sexual Offenses, Affect Regulation, Trauma, Systematic Case Study, Mixed Methods DesignCognitive and behavioral treatment programs for individuals who have committed sexual offenses (ISOs) have shown significant but small effe sizes. A growing body of research points towards the importance of difficulties in affect regulation (AR) as a risk factor for sexual recidivism On this basis, it seems important to target difficulties in AR in treatment The current systematic case study investigates the potential contribution of Emotion-Focused Therapy (EFT) to changing problematic AR in ISOs. Kevin was a high-risk offender with a traumatic history who met the diagnostic criteria of pedophilic and borderline disorders, with serious AI difficulties. Self-report outcome measures, observation measures, and a biomarker were used to track changes in AR, psychological symptoms and distress during baseline (phase A), treatment as usual (phase B), treatment with an EFT component added (phase C), and follow up (phase A). Statistically significant change was found in AR, psychologica symptoms and distress during treatment (phase B+C), however, it is no possible to attribute these changes causally to EFT. An examination of		
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### SCHOLARONE<sup>™</sup> Manuscripts

Into the wild, out of the woods: A systematic case study on facilitating emotional change

Sexual offending has a devastating impact on society in terms of health problems and costs. It has enormous consequences for survivors, their loved ones, communities, and for offenders. Therefore, it is important to improve our knowledge about the change process in offender therapy to make treatments as effective as possible.

A review of recent meta-analyses found that cognitive behavioral sex offender treatments show significant but small effect size (Kim, Benekos, & Merlo, 2016). However, a growing body of research points towards the importance of Affect Regulation (AR) as a causal factor in the perpetration of sex offenses (see overview in Gunst, Watson, Desmet, & Willemsen, 2017). Targeting difficulties in offenders' capacities for AR might be a promising avenue to increase the effectiveness of treatment. This study investigates the potential contribution of Emotion-Focused Therapy (EFT) to changing problematic AR in Individuals who have committed Sexual Offences (ISOs).

#### Affect Regulation in Individuals who Committed Sexual Offenses

AR is crucial for well-being and healthy psychological functioning. Emotions are seen as a necessary resource to assess any situation in life and as a guide to act in accordance with our needs and wants (Elliott, Watson, Goldman, & Greenberg, 2004). Difficulties in AR (under-regulation as well as over-regulation of affect) are linked to different forms of psychopathology (McMain, Pos, & Iwakabe, 2010) and to many kinds of problematic behavior including aggression and sexual violence (Gunst et al., 2017). AR problems are described as a major factor in etiological models of sexual offending and are linked to several evidence-based dynamic risk factors for recidivism (for overview see Gunst et al., 2017). ISOs are more likely to use ineffective coping styles in dealing with emotions, such as distracting themselves, worrying, having emotional outbursts, sexual fantasizing, and

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suppressing emotions. Developmental precursors for AR deficits, such as poor attachment, and sexual or physical abuse, are found to be overrepresented in the sex offender population (Maniglio, 2011). Therefore, a therapeutic approach that promotes more effective emotional processing and regulation in ISOs offers a promising avenue to improve the effectiveness of sex offender treatment.

#### **Emotion-Focused Therapy**

EFT has been developed to facilitate change in emotional processes and meaning making by working therapeutically with the client's moment-to-moment holistic experience (body, emotion, reflection) in the session (Elliot et al., 2004; Greenberg, Rice, & Elliot, 1993). From an EFT perspective, problems occur when clients have AR difficulties. When affect is over- or under-regulated, people fail to find meaning in their experience or fail to connect adaptive emotions (Elliot et al., 2004). EFT therapists facilitate clients, AR by being attuned, offering containment, resonating with the (bodily) experience of the client, reflecting and searching for words that exactly fit the experience of the client. EFT has a number of different intervention strategies, called *tasks* (see method for more information), to work with clients' difficulties in intra- and interpersonal functioning and to transform maladaptive emotion schemes. Emotion schemes synthesize and process a variety of cognitive, affective, and sensory sources of information to provide a sense of personal meaning (Greenberg et al., 1993). Emotion schemes are maladaptive when they are fixed, not in flexible interaction with the current situation, but instead determined by past experiences.

EFT has been shown to be effective in addressing the underlying and dysfunctional processes for many psychological problems and disorders: depression (Watson, Gordon, Stermac, Kalogerakos, & Steckley, 2003), anxiety (Watson & Greenberg, 2017), complex trauma (Paivio & Pascual-Leone, 2010). While experiential approaches and EFT have been integrated in forensic practice (Gunst, 2012; Vanhooren, Leijssen, & Dezutter, 2018), there is

 little research evaluating its effectiveness. One study (Pascual-Leone, Bierman, Arnold, & Stasiak, 2011) found that participants abstained longer from violent re-offenses.

#### Aims and Hypotheses

The current systematic case study is part of a multiple single case design. The aim of the study is to make a quantitative and qualitative investigation of the emotional change trajectories of ISOs during treatment. Given EFT is a novel treatment for ISOs, the treatment process will be described in detail.

The first objective of this study is to find out if psychological treatment can effectuate emotional change in a client who has difficulty regulating his emotions. The second objective is to investigate whether EFT, in comparison to treatment as usual, has an incremental effect on change in AR for this client. The following hypotheses are being tested:

 $H_a l$ : A decrease in the scores on measures of AR difficulties, psychological symptoms, and distress will be observed throughout treatment.

If  $H_a1$  is confirmed, we will test an additional hypothesis.

 $H_a2$ : A stronger decline will be observed on measures of AR difficulties, psychological symptoms, and distress in the second treatment phase when EFT is added to the program, compared to the first treatment (as usual) phase.

Furthermore, we expect no change during the waiting phase and follow-up.

#### **Single-Case Design**

Given the implementation of this research in a naturalistic setting, a quasiexperimental A-B-C-A single case design was the highest attainable design in terms of methodological rigor (Kazdin, 1978; Ray, 2015) to test the above hypotheses. Phase A includes the wait time between the initial intake assessment and the actual start of the treatment; phase B is treatment as usual; phase C is treatment with an EFT component added; finally, phase A is the follow-up period after the client had been released back into the

community. A full description of the hypotheses, method, and measures has been registered on Open Science Framework in the project 'Facilitating Emotional Change in Sex Offenders' before any data analysis was done (https://osf.io/tkdv5/).

#### Method

This study took place in an inpatient treatment unit for ISOs, which is part of a psychiatric institution in (country). The current client was selected to be the focus of this paper because this high-risk client demonstrated considerable difficulties with AR (under-regulation) at the start of treatment (based on observation and verbal report of the client). There was very little missing data, and although there were breakdowns in the collaborative relationship between client and therapists, the client engaged actively with the treatment and there were no interruptions in the treatment process.

#### **Treatment as Usual**

During phase B, the therapy program consists of cognitive therapy, psychomotor therapy, art therapy, drama therapy, and socio therapy, all of which are offered in group. The cognitive behavioral therapy focuses primarily on changing assumptions and attitudes that reinforce problematic behavior, and secondary on the development of new skills and strategies to maintain appropriate behavior. The other treatment tracks are supportive to these goals and try to improve intra-psychic and interpersonal functioning. In (name treatment center), risk management is combined with a rehabilitation model (the Good Lives Model; Ward & Stewart, 2003) that focuses on the fulfillment of human needs in a prosocial way.

#### **Emotion-Focused Therapy**

In phase C, EFT group therapy is added to the treatment as usual program. EFT takes a broad perspective on relapse prevention. In line with EFT-theory, sexual deviance could be seen as a "dysfunction arisen from the disowning of healthy growth-oriented resources and needs, the suppression of unacceptable aspects of experience, and the avoidance of painful Page 5 of 37

 emotions" (Goldman & Greenberg, 2015, p. 23). The primary focus in EFT is to promote more effective AR and emotional processing. The client's problematic behavior is captured in a case formulation that also integrates precipitating and maintaining factors. The therapeutic stance is characterized by empathy, acceptance (of the person and his experience, not behavior) and congruence. Empathic reflections and focusing instructions are the two primary interventions to let the client attune to, become aware of, and symbolize their bodily experience and adaptive primary emotions (Elliott & Greenberg, 2007). In addition, EFT therapists work with two-chair-dialogues for negative treatment of self, empty-chair-dialogues for attachment injuries with significant others (Elliot et al., 2004; Greenberg et al., 1993), and systematic evocative unfolding for intense reactions that clients experience as problematic (Rice & Saperia, 1984).

#### Client

In order to protect confidentiality of the client described below, identifying information has been changed. The participant also provided his specific consent for the publication of this individual case material. Kevin (a pseudonym) was 30 years old when he was admitted to the treatment unit. He is a White Caucasian man of average intelligence, who did not finish secondary education, and who has some professional experiences as a labor worker. Kevin's background is characterized by a considerable amount of victimization and offending, going back to his childhood. There was physical and emotional abuse by the parents, in combination with behavioral difficulties in Kevin. At the age of 12, he was sexually abused by an adult male friend of the family. At the age of 14, he attempted to commit suicide for the first time. In the meanwhile, at the age of 13, Kevin had started to sexually abuse children. Between the ages of 13 and 22, he molested 9 children between 4 to 10 years old. As a result, he spent many years of his adolescence in youth institutions and seven years in prison as an adult. Given his extensive history of offending, the risk for

reoffending is considered 'high' on the basis of the Static-99R tool for risk assessment (score 8) (Helmus, Thornton, Hanson, & Babchishin, 2012). A pattern of self-destructive behavior such as drug abuse, cutting, attempted suicide, and binge eating runs through his life. Kevin met the DSM-V criteria (American Psychiatric Association, 2013) for Pedophilic Disorder on the basis of his sexual fantasies and behaviors involving prepubescent children, and Borderline Personality Disorder including unstable self-image, affect liability, relational instability, impulsivity, self-destructive behavior, and hostility.

According to our case formulation, Kevin had serious difficulties with AR when he came to the treatment center. We are not only referring here to the whole range of disinhibited and destructive behaviors he manifested. Kevin was struggling in relation to all five aspects of AR (Watson & Prosser, 2004): he had little awareness of his bodily states and difficulty labeling bodily experiences (1); he struggled to modulate arousal (2) and expression (3); and had difficulty accepting (4) and reflecting on emotions (5). This was evidenced during the assessment at intake (week 0): his self-reported score for emotion dysregulation was high and the observer-rated score for affect dysregulation was similarly high. Unsurprisingly, his selfreported psychological distress was well above the clinical cut-off. Particularly rigid and maladaptive emotion schemes about 'trauma-related guilt' and 'rejection' disrupted emotional processing in Kevin. For reasons that will become clear later in this paper, Kevin felt guilty about the sexual abuse he had been subjected to as a teenager. Moreover, he felt unlovable due to emotional neglect by his parents and experiences of being bullied by peers. He thought about himself in very derogatory terms and he was haunted by thoughts such as 'I am worthless' and 'I don't have a right to exist'. He was very sensitive to interpersonal difficulties and any discussion or rejection led to a feeling of victimization. The fact that he had actually committed child abuse nourished his core maladaptive shame-based emotion scheme. At the level of the body, this emotion scheme was experienced as muscle cramps,

moist hands, freezing, and tension in his back. In terms of action tendencies, the emotion scheme led on the one hand to expressions of penitence and self-punishing behavior, but on the other hand to very demanding and attention-seeking behavior in order to be seen as a person. Secondary emotions and reactions such as self-blame, anger, irritation, and frustration complicated the exploration of this emotion scheme further.

#### Therapists

The treatment-as-usual program is carried out by a multidisciplinary team. The EFT group sessions are led by two therapists. The first therapist is a 40-year old White Caucasian woman with almost fifteen years of clinical experience as a forensic psychologist and psychotherapist. She completed a 4-year postgraduate training in experiential psychotherapy and followed the specialized training in EFT. The second therapist is a 50-year old White Caucasian male psychologist with 25 years of clinical experience, including 10 years in a forensic setting. He is also trained as an experiential psychotherapist.

#### **Outcome Measures for Affect Regulation**

The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) is a 36-item self-report questionnaire designed to assess six aspects of emotion dysregulation: Lack of Emotional Awareness, Lack of Emotional Clarity, Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behavior, Limited access to Emotion Regulation Strategies, and Impulse Control Difficulties. Participants rate each item on a scale from '1' (almost never) to '5' (almost always). The measure has shown high internal consistency (Cronbach's alphas between 0.80 and 0.93). DERS scores have been found to be sensitive to change over time (Gratz, Lacroce, & Gunderson, 2006).

The Observer Measure for Affect Regulation (O-MAR; Watson & Prosser, 2004) is an observer-rated measure that assesses clients on five dimensions of AR: Awareness/Labelling, Modulation of Arousal, Modulation of Expression, Acceptance (of

experience), and Reflective (of experience). Each subscale is rated on a 7-point Likert scale, with "1" corresponding to the lowest level of functioning on that particular scale, and "7" corresponding to the highest level of functioning. An overall score is calculated as the average of the five ratings. Preliminary findings in an earlier study indicated that the O-MAR has high internal consistency and there is preliminary evidence of acceptable construct and predictive validity (Watson, McMullen, Prosser, & Bedard, 2011). After a training period, both raters achieved a good inter-rater reliability with the author of the manual (sixth author) (ICC = .93) and between both raters (ICC= .97).

#### **Outcome Measures for Symptoms and General Well-Being**

The Outcome Questionnaire - 45.2 (OQ-45.2; de Jong, Nugter, Lambert, & Burlingame, 2008) is a 45-item self-report measure of psychological symptoms. It assesses three domains of functioning: symptoms of psychological disturbance (mainly depression and anxiety), interpersonal problems, and social role functioning (e.g., problems at work or school). The OQ-45.2 demonstrated adequate reliability (Cronbach's alphas between 0.91 and 0.93 for the total score) and validity across a number of settings and patient populations.

Saliva stress hormone levels. Concentrations of cortisol (μg/dl) were measured in saliva samples by means of mass-spectrometry. Saliva samples were collected and analyzed following the standard practice in salivary hormone research (Kirschbaum, Bartussek, & Strasburger 1992). Cortisol, a biomarker for an activated stress response, plays a key role in numerous models that link stressors to psychiatric disorders (Miller, Chen, & Zhou, 2007). The reference range for cortisol levels in the morning is 0.13 - 0.34 μg/dL (Saliva Test

Specifications, n.d.).

#### **Process measures**

**The Postsession Evaluation Questionnaire** (PSEQ) is the Dutch revised version (Stinckens, Geys, Vos, Vrancken, Smits, & Claes, 2015) of Llewelyn's (1988) Helpful

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Aspects of Therapy Form. This brief form contains a series of open-ended questions about helpful and hindering in-therapy events. A visual analogue scale is used to measure the extent to which these moments were experienced as being helpful or hindering by clients.

The Client Change Interview (CCI; Elliott, Slatick, & Urman, 2001; Stinckens et al., 2015) is a structured in-depth interview assessing the way the client experienced the therapeutic process. The client is asked about what changes occurred during therapy, the processes that might have brought about these changes, whether any of the changes were surprising to him/her, and what aspects of the therapy he/she experienced as helpful, difficult, hindering or missing. In order to stimulate participants to be open and frank in their answers, CCI's were conducted by an independent researcher (second author).

#### Procedure

When the client came to the treatment center for the standard intake assessment, Kevin was informed about the research. He agreed to participate in this study and completed the informed consent form as required by the APA ethical principles. The study received research ethics committee approval at (school affiliation). One week later (week 1), an independent researcher conducted the first CCI. During phase A the client filled in the DERS and OQ-45.2 questionnaires on a monthly basis. During phase B and C, Kevin completed the DERS on a weekly basis and the OQ-45.2 on a monthly basis. CCI's were conducted every one or two months. These interviews were used by the first author to rate the O-MAR. A set of four saliva samples was collected on four consecutive days every month. During phase C, all EFT group sessions were video recorded. Every session of EFT was followed by the completion of the PSEQ by the client. The second therapist rated every EFT session on the O-MAR. During the follow-up phase A, the client filled in the DERS and OQ-45.2 after one and three months, and saliva samples were also collected at the same time. After six months a last CCI was done. Calculation of the scores on the questionnaires was postponed until the end of

treatment to minimize the tendency of social desirability responding in the client and to avoid any influence on treatment decisions by the therapist and her team.

#### **Data-analysis**

 In a first step, the clinical material was integrated in an Emotion-Focused Case Formulation (Goldman & Greenberg, 2015). The second step encompassed a quantitative investigation of the data after treatment was completed. To test the hypotheses, standard parametric inferential statistical techniques were performed with R version 3.5.1. Piecewise linear regression (Center, Skiba, & Casey, 1985-1986) was used to model the change in AR (DERS and O-MAR), psychological symptoms (OQ-45.2), and distress (cortisol) in each phase, hereby allowing for a different intercept and different slope in each phase. The significance of the change in each phase (as well as between phases) was assessed by the significance of the slope in each phase (and the difference in slopes between phases, respectively). Model assumptions of no residual auto-correlation (Durbin & Watson, 1951), normality and homoscedasticity were checked. In a third step, the first and the second author, independently from each other, engaged in a thick description (Ponteretto & Grieger, 2007) of the therapy process, in which changes in quantitative measures were linked to the treatment narrative (Dattilio, Edwards, & Fishman, 2010). The data they used were the CCI's, therapist notes and the client's notes on the PSEQ's. The content of the two resulting reports were found to be largely comparable. A few minor differences were discussed in order to obtain consensus. The consensus process thus serves as a means of triangulating the researchers' interpretation of the data (Jackson, Chui, & Hill, 2011). Based on the consensus, the first and second author wrote the qualitative analysis of the process data. They often returned to raw material to stay close to the patient's narrative and to validate the presented findings. In the description of the therapy process in phase C, they took a closer look at the EFT group intervention that is added during this phase. Session material is presented to accurately portray how problems with AR

emerge and how the therapist intervenes to enhance functioning. The selection of session segments is based on Kevin's ratings in terms of helpfulness (highest scores on the PSEQ) and on observations of critical fluctuations in AR (O-MAR).

#### Results

#### **Quantitative Analysis Outcome Data**

The best fitting line for each interval, based on piecewise linear regression, is shown in the graphs in figure 1. To start, we were interested to see whether there were changes during the initial waiting phase (phase A). In this phase the decline in scores on the DERS (Z=-4.11, p = .001) and OQ-45.2 (Z=-2.30, p = .040) were significant.

 $H_a1$ : we tested whether there were changes during treatment (phase B+C). DERS, O-MAR, OQ-45.2, and cortisol concentrations showed a significant decline ( $Z_{DERS}$ =-7.68, p < .001;  $Z_{O-MAR}$ =7.03, p <.001;  $Z_{OQ-45.2}$ =-5.54, p<.001;  $Z_{cortisol}$ =-2.628, p=.015) throughout the entire treatment (phase B+C), which confirms the first hypothesis.

*H<sub>a</sub>2:* we tested whether there was a stronger decline in problems during phase C when EFT was added, in comparison to treatment as usual during phase B. The change in slope between phase C and phase B is significant for the DERS (Z=-7.54, p<.001) but in the opposite direction as expected. The change is not significant (all p>.05) for the O-MAR (Z=-0.60), the OQ-45.2 (Z=0.57), and cortisol concentrations (Z=-0.54). Consequently, the hypothesis is rejected. We also tested whether there were changes during treatment phase C. We found a significant decline in scores on the O-MAR (Z=5.27, p = .002) and in scores on the OQ-45.2 (Z=-4.82, p<.001). We found no significant decline in scores on the DERS (Z=-0.64, p = .523) and in cortisol concentrations (Z=-0.11, p = .914).

#### **Qualitative Analysis Process Data**

#### Phase A: Baseline.

In prison, Kevin was targeted physically and psychologically by inmates. He survived in this environment by acting tough and taking hard-drugs. During the first CCI at intake, he reported an increased sense of distrust and betrayal. Kevin was able to label some emotions but without awareness of momentary feelings. On the one hand, there was over-regulation of affect, and on the other hand, the client described how anxiety dominated his live ('... having the feeling that anxiety overshadows my whole life. '). He was fighting against frequent sexual fantasies by using porn and needed drugs and self-harm to regulate his arousal. Kevin showed a lot of self-pity, which was detrimental to self-reflection. During the CCI at admission 14 months later, self-pity was still prominent, including feelings of guilt and remorse ('I made it unbearable for myself by causing such harm to somebody.'). The client was in a relaxed state, but he talked in an aloof and boastful manner. He described his problems with AR in terms such as 'over-controlling' and 'exploding'. His reason to start treatment is penitence: 'I haven't been easy on my victim, so I don't want to be easy on myself either.'

#### Phase B: First treatment phase – treatment as usual.

At the beginning of treatment, alliance formation with the team and the group is the most important step. Kevin reported he felt welcome for the first time: '*It is difficult to trust people, but to be honest, this was quickly gone when I arrived here. I did not have the time to introduce myself, other clients came to me, that felt good [...] a feeling to be part of the group*'. Kevin took the treatment program very serious from the beginning, but it was also very challenging for him. He had to write down his life story. This task confronted him with very painful experiences of victimization from his childhood and it resuscitated flashbacks of abuse during therapy sessions and nightmares. Talking about his offenses in therapy triggered catastrophic thoughts about how his victims will also become perpetrators, just as he had.

 Kevin was unable to regulate this sense of guilt and he felt a strong urge to return to his old habit of auto-mutilation.

In the interview after three months (week 74), Kevin mentioned less rumination and more relaxation, but expressed more frustration about others. Therapist notes reported that the positive experience of being welcomed was replaced by the impression that group members did not respect and recognize him, which made him feel unworthy. Kevin had difficulties to trust other clients and team members. When he perceived disrespect or disregard, he reacted in a very displeased or emotionally overwhelmed way. During his third month of treatment, it was Kevin's turn to present his crime cycle to the group. The purpose of this task is for the client to discuss the proximal factors that contributed to the commission of the sexual offense. Kevin prepared his presentation thoroughly. Afterwards, other clients and therapists noted that they had heard a very honest but also very detached and impersonal summary of the offenses. Kevin was unable to make sense of this feedback. In the CCI shortly after this session, he even attributed a quasi-heroic meaning to his performance: 'I didn't do this for myself; I did this for my victims.' Interestingly, the real impact of this session became apparent much later. During the final CCI shortly before his release, Kevin pointed out this session as the first out of two key moments in his therapy. More specifically, he referred to one of the clients who had objected: 'I don't see YOU in this.' This comment stuck with Kevin, because it suggested that he as a person is more than the offense he committed.

As the outcome measures demonstrate, Kevin improved considerably during phase B in terms of AR and psychological difficulties (see Fig 1). During this period, he was offered extra training in self-regulation skills, namely Dialectic Behavioral Therapy and relaxation exercises. In the CCI after five months (week 83), Kevin reported that these interventions helped him to '*let go of the worries and to focus on more relaxed activities. I quickly realized that I could take control into my own hands.*' Despite this improvement, Kevin continued to

struggle with flashbacks and overwhelming feelings during therapy sessions. Six months after admission (week 88), Kevin described how therapy triggered re-experiencing: 'for example in art therapy, when I get the instruction to close my eyes to feel a certain material and focus on my feelings. I have to think about my abuse then, fifteen times a day.' He did recognize the harm he caused to others, but this recognition was always accompanied by complaints about his own pain and misery. Kevin's position in the group was often problematic. He was inclined to feel disrespected and unheard by other clients, and this triggered his emotion scheme of being unworthy. He felt victimized by the other clients: 'I live as a victim among offenders [...] It is hard to accept for me that I did something wrong like that, and now I have to live together with fifteen other [offenders] [...] I see them as sort of my offender.'

#### Phase C: Second treatment phase – EFT added.

In the EFT-session in week 94, the client related the experience of being sexually abused as a child by a friend of the family. Although he was naming feelings like disgust and guilt, Kevin was not able to access these feelings during trauma retelling. Nonetheless, Kevin found this session very helpful (PSEQ = 8.5/10) due to 'the empathy and recognition by the group and hearing that I am not the only one suffering from inward conflict and guilt feelings'. Some sessions later (week 97) Kevin expressed his need to be recognized as a person beyond any experiences of victimization and perpetration, but he contrasted this need with a negative, guilt-related evaluation of himself. The following fragment demonstrates that Kevin experienced this internal state of contradiction as both distressing and disorienting. 'I want to be recognized for the person I am, but I cannot talk about other things because I only had misery. I want to be seen as a happy person but then I cannot allow it because I think I don't deserve it and at the same time I want it. It is so tiring to have that constant internal conflict.' The therapist pointed out his wish to be considered more than a victim or an offender and identified his inner critic (self-evaluation split). In the PSEQ, Kevin noted that

this session helped him to understand how emotionally unavailable he is (8.8/10). In terms of Pascual-Leone and Greenberg's (2007) model for emotional processing, Kevin was stuck in the dialectic process of balancing out an existential need ('*I want to be recognized for the person I am'*) and a core negative evaluation about the self ('*I don't deserve it'*), without being able to come to a synthesis of both. An inner critic prevents Kevin from deepening and potentially accepting his needs: the negative feelings are a punishment that he must suffer. In week 101, the therapist engaged Kevin in a focusing exercise to locate the need to be recognized as a person in his body (PSEQ = 9.2/10).

*T*: Can you try to stay with that, that there is a feeling in you that feels so undesirable, that wants to hear 'I am worthy'. Can you say to that feeling that you noticed it and heard it?

C: [Stays quiet.]

*T*: *Where is that feeling in your body*?

C: My throat.

*T*: Can you tell that feeling that you noticed it. That feeling of you needs to be taken care of. *C*: It is very difficult to accept that because I also infected somebody else with it. I cannot tolerate it, because I don't deserve it.

Two weeks later, in week 103, Kevin talked again about the impossibility for him to accept his need to be seen as a person rather than a monster. His argument ran like this: if he would be considered a genuine person, then the people who abused him as a teenager would also need to be considered genuine people. This is unacceptable for him. Kevin also expressed anger towards his mother who blamed him for the abuse. Then he expressed disappointment and sadness for being blamed. For the first time he could tolerate his emotions and express his underlying need. What he missed was to find shelter in one's arms. He could stay with that desire for a little moment. In week 113 (PSEQ score = 9.5), Kevin engaged in an imaginary dialogue (empty-chair task) with the man who abused him at age 12. The purpose of this task

was to help Kevin to get in touch with and express his feelings towards the man who had so blatantly disrespected his needs. Kevin was able to verbally express that he had not wanted the abuse to happen, but immense fear and powerlessness in his body made it impossible for Kevin to process his affect into what Pascual-Leone et al. (2007) call assertive anger about 'setting boundaries and engaging in a fight for one's rights and/or existential needs' (p. 879).

Despite (or because of!) the intensive therapeutic work during this phase of treatment, Kevin demonstrated a tendency to disengage from the treatment and the people in (name treatment center). He started to cherish the idea that leaving the hospital would be a panacea to his troubles and that he could leave his traumatic past behind by starting a new life. In the CCI during the 15<sup>th</sup> month (week 122) of treatment, Kevin expressed his progression (less shame, more self-esteem, less victimization), but he also reported how every day was a challenge not to react with aggression to other clients. Therapists also reported that minor frustrations in contact with team and group members frequently led to escalations. Kevin felt belittled, bullied, and humiliated when his needs were not met. He still got stuck in his maladaptive emotion scheme at these moments. This was addressed in the EFT group in week 123 (PSEQ = 9). He could recognize that his feeling of being worthless is a response to things that have happened in the past rather than a response to what is happening in the present. This maladaptive emotion was further accessed and explored in order to replace it with self-comforting or pride (empathy-based tasks). In that session Kevin became again aware (as in week 97) of his underlying need to be cared for. He was not yet able to tolerate this feeling, which made him shift to a secondary reaction of hate against his parents (as he had done in week 103). In a next session (week 124, PSEQ = 9), Kevin made a new attempt to engage in empty chair work to express his anger towards his abuser. A chair was put in front of him and Kevin was invited by the therapist to describe the man: 'He had a smile on his face as if he was doing nothing wrong.' The therapist checked the client's comfort, because he

seemed frightened, and explored, together with the group, for ways to increase Kevin's comfort, given the fact that he had collapsed during empty-chair work in week 113. He wanted two other clients to come sit next to him. This is a longer fragment from this session, during which Kevin reached a fairly high level of AR as rated on the O-MAR (score = 5.2). *C: Hm, I was so anxious, because there was a daily confrontation, you were waiting for me. T: How was that for you?* 

C: I felt very oppressed and alone. I wanted to find the words to tell you what you did.

*T*: *Try* once.

*C*: It is strange to say but it feels like I am traumatized by one specific point.

*T*: *Try to say it, there is one thing that...* 

*C*: [C sighs, quiet].

*T: Do you still feel ashamed?* [Therapist explored by empathic guessing if it was shame that blocked the client at that point].

*C*: Yes, although I told it before.

*T: Try to tell him how it was for you then, when you say how it was then, you put it at some distance, it was then, not now.* [Therapist tried to create a workable distance to the emotion] *C: ... Feeling disgust, paralyzed, powerless, inside I was screaming and fighting, outside I was powerless... I am so jealous to people that can forget such things, I still feel ashamed. T: The image and the disgust remain.* 

*C: Especially that part, it is that that has triggered so much* [C is weeping].

*T: Can you tell what it is?* 

Therapist invites the client to bring out what is so shameful to let go the shame which can be necessary to process complex trauma (Paivio et al., 2010). After sharing the most disgusting episode, Kevin was invited again to express himself to his offender.

T: What do you want to say to him now?

C: [quiet] I lost it... the words that come closest are 'let me go'.

*T: Let me go.* 

*C:* [quiet] *There was something happening, when I said 'I lost it'...* [not speaking to the empty chair anymore] *I have been searching for something for years, and now it came to my mind, that is... when I was in that moment, in my inside struggle, there was a woman who was walking with a dog and the dog barked, that felt as my rescue, it made me strong for a moment to run away, he was my hero but I forgot his name, I tried to find it my whole life and now I remember it: Basil [cries].* 

*T*: Basil saved you, he gave you the strength to run away.

C: [weeping] It sounds stupid, but that dog meant a lot to me.

T: What happens now in this moment? Try to name what it means to you now.

*C:* I feel sure now about myself, I said it before, that it was very confusing and difficult that I had an erection in that moment, that made me hesitant and feeling guilty, but Basil gave me the strength to run away. That was what I wanted to do, that is the affirmation.

The weeks after there were again more frustrations and complaints about the limitations of the therapeutic setting and incidents in the group. The secondary emotions of frustration and rejecting anger came to the fore again. In the CCI in week 131, Kevin rambled on about everything that had happened to him recently. He labeled some emotions, but he did not pay attention to the actual experience of these emotions. In week 132, Kevin's AR difficulties during the EFT-session increased dramatically (O-MAR = 2.2). He rated the EFT-session as very helpful (PSEQ = 9.5) but also as very hindering. We engaged in trauma retelling with another client and Kevin got totally overwhelmed by his own emotions. The therapist noticed him pinching his hands very hard and invited him to speak, but he was not able to speak at that moment. Contact reflections were used to get him back in the here and now, and to give him a sense of safety again. We did not reach a workable distance from the

affect. In the next session, Kevin was still reacting defensively. He refused any help to process his experience because, in his opinion, he had to do it on his own (marker for alliance rupture). He evaluated this session as unhelpful and mentioned that he felt as in the past, not worthy to be heard. He blamed the therapy for the focus on the suffering of clients. He thought that in the real world everything would be better.

However, Kevin did not give up on the treatment. During the EFT-session in week 133, he renewed his engagement with the therapy. Kevin wanted to share with the group his feeling of being doomed, because the day of his abuse at age 12 had also been the day of a series of important losses and unfortunate events later in his life. Kevin's account triggered catastrophic thoughts about the future, anxiety and tension in his body. The therapist used focusing instructions to explore this bodily tension. This allowed Kevin to start to formulate a deeper feeling of having missed out on so many good things in his life, such as good parents. *T: You feel some relief, but also tension. Can you tell where in your body you feel the tension?* 

C: In my shoulders, my upper back, just to the middle.

Other client: As if you have to carry a heavy burden.

T: Does it feel like a heavy load that weighs?

C: It weighs and rests on my neck, it really feels like that. [Slowing down]

T: Do you have an idea what it is that weighs so heavily?

*C:* Most of all anxiety, I think, the memories, the lack, there is so much I have missed out on. *T:* So, on the one hand there is anxiety for new negative experiences, and on the other hand there is a wanting of everything you missed in your life. Maybe we can try to give these both parts some more words. Can you try that, and if you express the words, try to feel if they fit with your body.

*C: Literally the fear that something bad could happen, that I cannot control, that fear is still there.* [Client responds quickly and unconnected to his body.]

*T*: *Try to feel how your back responds when you say that.* 

*C:* I feel that it is mentally correct, but I don't feel a shift physically, it is the fear that something could happen, I assume that it will happen, I am cursed. Although I know it has nothing to do with me, it does feel like that.

The therapist tried to help Kevin create more distance from his experience and asked him to try to listen to his feeling as if it were a friend who was telling something to him. When he asked his feeling what it would need, the word 'reassurance' came up. Kevin protested, because that was impossible given the fact that he had no control over external factors and what he really needed could not be fulfilled.

C: I cannot ask for another family... I cannot get other parents that care about me.

*T*: *Here is the other part in you, the part that feels the missing.* 

C: That is the difficulty, how can you miss something that destroyed your life?

*T*: You say this sharply, 'How can you miss something that destroyed your life?' If you say that to your [internal] feeling of lack, how does it respond?

*C*: (Speaking from the lack) *That, I see it different, that, I saw it many times in other people and every time I say 'This is what I needed* [emotionally]*, this could have made – how strange it might sound – my life normal'.* 

*T: Of course, the feeling of lack is very natural* [warmly].

C: It is so difficult, I miss parents, but I don't miss my parents, it is so confusing.

*T*: If you hear your feeling of lack say 'it is strange, I don't miss my parents, but parents' what would you say then?

*C:* That I understand, it is a lack of a mother and a father that are really a mother and father, I never had that feeling and that is what I miss.

T: What message would you want to give to your feeling.

C: I would wish to meet a woman and have children, to feel part of a good, normal family.

*T*: *To have the feeling to mean something, and feel loved, and give love* [*Client nodded*]

This session was the onset to express feelings of grief and hurt about everything he had missed out on in life and he expressed a desire to start his own family. Feelings of grief and hurt are evidence of a higher degree of emotional processing (Pascual-Leone et al., 2007). However, Kevin was only able to hold this level of emotional processing with active support from the therapist, who asked him to listen to his experience as if it were a friend. This allowed Kevin to have a more gentle relation to his inner experience and to be more accepting of his experience, reaching a higher level of AR (O-MAR = 4.4).

In the CCI after 1.5 year of treatment (week 141), Kevin complained about his lack of family contacts or a romantic relationship. He was suffering from loneliness, but was able to express and tolerate it. There was more of a balance between being a victim and an offender, with less emphasis on his own victimization. There was still a lot of anger towards his offender though. He was tormented by the idea that he ruined other lives but he wanted to stand up for his mistakes and show that he was working on his problem. Again, Kevin's therapeutic progress in terms of AR did not persist. In week 143, he responded angrily by punching a hole in the wall of his bedroom after feeling disrespected by another client. Also in the EFT-session that week, AR problems were obvious (O-MAR = 2.2). Kevin tried to share problematic experiences from his former relationships, but felt completely ignored because he was not the exclusive focus of attention in the session. It is clear that Kevin was able to move out of his maladaptive emotion scheme of being worthless for a short while, but he had a tendency to relapse into it very easily.

In week 144, treatment providers decided that Kevin was not yet ready for discharge and that he had to continue his treatment for at least 6 more months. Most other clients would have been close to their release by this time, but Kevin was too unstable. This decision was difficult for Kevin to accept: he became very outspoken about him feeling disrespected and

misunderstood, as if the team didn't appreciate all his efforts to engage in the therapy. This led to an explicit alliance dialogue in which the first EFT-therapist and Kevin's keyworker spoke to him in a very authentic, concerned way to explore the difficulties from both sides, but also to confirm clear boundaries. This conversation made a strong impression on Kevin, as it was the starting point of a process of reflection about his contribution to problematic interactions with others. There was a growing insight in his destructive reactions (self harm as well as catastrophizing). He acknowledged that his defensive attitude originates from anxiety. 'To view everything negative is safer because I'm used to it. Tolerating uncertainty triggers *more fear.* 'He finally realized that rejecting other people makes real interactions as well as real change impossible. His narrative became more nuanced with integration of positive episodes that he omitted before. He even developed a wish to have a meeting with his parents, whom he had not seen for years. During the final CCI shortly before his release, Kevin pointed towards this period of the treatment as the second key moment in his therapy (the first key moment was in the third month of phase B). The DERS shows that his difficulties with emotion regulation peaked in week 146 to decrease again afterwards. He also got his highest score (highest level of AR) on the O-MAR (5.8) during this week.

Kevin engaged in an empty chair dialogue in week 151 (PSEQ = 7.4) with his father. He expressed his disappointment to his father because he had never been there for him, never protected him from the destructive reactions of his mother. Kevin became very emotional when he spoke about how at one time he saved his father from committing suicide, and how his father had often blamed him for saving his life. He imagined his father sitting on the empty chair looking away with tears of regret in his eyes. In week 155, Kevin explored the role of his emotion scheme in the context of his offenses on a deep emotional level (PSEQ = 8.5). In his perception, all victims were children in need. By helping them he felt recognized by someone. There was confusion between his needs and their needs. The close contact

 triggered his need for intimacy, protection, and to be meaningful to someone. In contrast to his lack of confidence in contact with adults, he felt safe and powerful in contact with children. Kevin was able to connect to the primary emotion of pain and loss leading to the need of being unconditionally regarded. In the meanwhile Kevin's rehabilitation process was progressing. Contact was established with an out-patient treatment center for follow-up. He was able to secure a job and accommodation and he met a new girlfriend. His new life was taking shape. Although things seemed to go smoothly, Kevin experienced fear for all the new things in life, but he could tolerate it. Kevin made arrangements to meet his father, for the first time after many years. The meeting was painful but positive, as Kevin felt some reassurance that his father actually cared about him. During the last phase of treatment, several support figures (longtime friends and his new girlfriend) in Kevin's life were informed about Kevin's risk factors for recidivism and his need to live a good live. Two weeks before discharge (week 170) Kevin witnessed a serious violent incident in the ward and intervened to protect a team member. Afterwards he was in shock. The day after, he felt completely inhibited and unable to express anything (O-MAR=1.2). Data from the DERS are missing that week, which is exceptional. His state of shock cleared up after that day, but Kevin realized that the incident had triggered experiences of aggression from his youth and from prison. Kevin took leave of the team and the client group in a positive way knowing that the door would always be open for him if he is in need or if he wants to share experiences from his new life.

#### Phase A: Follow-up.

The DERS and OQ-45.2 (Fig 1) show stable low level of AR difficulties and psychological symptoms three months after discharge. The scatterplot of the O-MAR (Fig 1) evidences a continued capacity for AR six months after discharge. In the CCI at discharge, Kevin reflected on the twenty-five months of treatment: '*It gave me more stability. I came from prison with the idea that I was a stable person with solid footing. I was self-assured, too*  sure, not realistic. Now I can see what is unstable, what I have to take into account... I am changed as a person, but the risks stay the same. Now I realize, I am more than an offender ... It is not me or the offender, it is together, it is a whole... What is very fragile and involves great risk is my self-esteem that I often lack, euh, the feeling that I am worth nothing... I have to take care of that. When that happens, then I become lonely and neglect myself. I think that is my biggest risk.' We see here that his emotion scheme of being worthless and shameful has shifted in small but important respects. This was further evidenced by another important change mentioned. Kevin related how he now realizes that he needs to attend to his own needs before he helps out other people: 'I helped others not to be confronted with myself, to give myself a good feeling, to have meaning for someone.' Due to the treatment, he had discovered that this altruistic tendency was actually part of his deficient emotion scheme. His capacity to give attention to his own needs had improved.

Six months later (week 198) Kevin was still doing well. He kept his job and lived together with his girlfriend in relatively stable conditions. He learned to express his frustrations and feelings sooner but it sometimes ended up in conflict with his girlfriend. It was difficult not to have a person to talk to all the time, as he had in (name treatment center). Kevin successfully dealt with risk situations involving a boy from the neighborhood and children from his girlfriend's family, and he talked about these situations openly with different people (his partner, the CCI interviewer, and his probation officer). The greatest benefit from treatment was that he learned to trust again people around him and that he feels that he has the right to exist. Most important for Kevin was having the opportunity to live a normal live, being part of a bigger family. Most difficult for him was when people do not trust him or still see him as the person he used to be. Kevin's situation was still stable two years after admission when he was contacted in order to give his agreement for the publication.

#### Discussion

The main purpose of the study is to gather knowledge and greater understanding of the emotional change process of a single case by using a mixed methods approach (Dattilio et al., 2010). Comparing quantitative and qualitative findings enriches our view on the pattern of change. Looking to the entire treatment, the client significantly improved on all measures. A remarkable finding, however, was that the scores on the self-report measures already significantly declined during the waiting phase and regarding AR, also during the first treatment phase. Improvement before treatment (Howard et al., 1986) or in the first several weeks of treatment (Ilardi & Craighead, 1994) is a known phenomenon, which make it very hard to capture an incremental effect of the second phase of treatment.

Nevertheless, we found that it is possible to improve AR (as rated by an observer on the O-MAR) and psychological symptoms (as reported on the OQ-45.2) during a treatment that includes EFT. This is an important finding because, as Pascual-Leone et al. (2007) put it with regard to the treatment of negative affect, 'the only way out is through'. Emotional processing during therapy sessions is associated with positive outcome in terms of AR, psychopathology and interpersonal problems in a clinical population (Watson et al., 2011). Our case study of a highly traumatized, high risk offender with serious AR difficulties adds to the small research basis that confirms the importance of emotional engagement in the treatment of ISOs. However, this significant result was neither confirmed by the DERS selfreport questionnaire for AR nor by cortisol levels as a biomarker for stress. We suspect that the lack of significant decline in AR as measured by the DERS can be explained by a floor effect: Kevin's scores stabilize between 50-60 at the end of treatment as usual (phase B), which is beneath normal average (80), but also in contrast to the verbal self-report **and observation** of AR difficulties in the CCI. The low scores leave little room for improvement during EFT (phase C), although the O-MAR and the qualitative analysis of the therapeutic

process indicate that there is important change in AR during phase C. Neither did we find significant change in stress as measured through cortisol levels during phase C. Our cortisol data were based on samples taken on four consecutive days on awakening. However, a recent review on the use of salivary cortisol as an outcome measure suggests that the cortisol awakening response or the diurnal cortisol slope may be more sensitive indexes to neuroendocrine change than total cortisol output (Ryan, Booth, Spathis, Mollart, & Clow, 2016).

This case study does not allow us to make any robust claims about the causes for the change during treatment. We cannot make a firm claim about the added value of EFT in producing change based on statistical inferences, because the change during phase C was not significantly stronger compared to the change during the treatment as usual phase. However, the mixed methods data do indicate that, despite his improvement, Kevin's treatment could not be considered successful at the end of the treatment as usual phase. During baseline (phase A) and treatment as usual (phase B), Kevin's scores on the O-MAR never reached a 4 or higher. A score of 4 is the point at which affect is beginning to be used as a source of information to enhance functioning (Watson & Prosser, 2004). Kevin reached this level of emotional processing during the treatment phase with EFT (phase C). Similarly, the OQ-45.2 only dropped below the clinical cutoff (56) during phase C. The emotional processing of traumatic experiences and the improvement in interpersonal functioning took place in phase C when EFT was added to the treatment program.

#### Steps, Hindrances and Mechanisms of Change in EFT

Only after three months in phase C (week 103), was Kevin able to momentary tolerate his emotions and recognize his underlying need. Kevin was able to express a need to be heard, but feelings of guilt and worthlessness prevented him from accepting help in addressing this need. Initially, focusing tasks were used to explore the bodily experience of the need to be

 heard. Two empty chair tasks were used to help Kevin set boundaries and stand up for his rights and needs towards the person who abused him as a young teenager. The first attempt (week 113) led to an emotional breakdown, but the second attempt (week 124) was more successful in helping Kevin to work through experiences of shame in relation to the abuse. The memory about the dog helped him to gain strength in relation to the abuse by clarifying the fact that he had not wanted the abuse to happen. A few weeks later, in week 133, Kevin was able to access feelings of grief and hurt because of the dramatic impact of childhood abuse and poor parenting on his later life. Very precariously, and with a lot of processdirective interventions from the therapist, Kevin was able to be more accepting towards these feelings of grief and hurt and to express a new wish, namely to start his own family. Between week 144 and 146, a major shift happened in the treatment process, which is recognized by both the patient himself, the therapists, and the researchers. After being informed in week 144 that he would need to continue treatment for at least 6 more months, Kevin felt disrespected and misunderstood. In a dialogue involving the first EFT-therapist and his keyworker, the alliance was restored and Kevin started to recognize how his tendency to feel dismissed by others made interactions with others impossible. After week 146, his feeling of worthlessness could be processed on a deeper level leading to a more accepting and nurturing attitude towards his own painful experience and needs together with greater responsibility for his crimes. There were fewer affective conflicts between his victim and offender parts, which became more integrated in the self.

This description of the treatment process suggests a linear progression, but this was not at all the case. Time and again, Kevin relapsed to lower levels of emotional processing and displayed a dismissive attitude towards staff and clients. Consistent with the principles of trauma-informed care for ISOs (Levenson, 2014), it was important for the therapists to keep in mind that these hindrances to therapeutic progress were part of a pattern of behavior that

found its origin in traumatic experiences during childhood. There were two main hindrances that made Kevin relapse time and again in lower levels of emotional processing. First, Kevin's rigid emotion scheme of trauma-related guilt often prevented him from engaging with the therapy group. Feelings of guilt and unworthiness made it hard for Kevin to accept help from others and to work through his own experiences of victimization. Rejecting anger, irritation, and frustration were secondary emotions that, combined with trauma-related guilt and maladaptive shame, blocked entrance to underlying primary emotions and needs. In a previous interview study about therapeutic factors in group-EFT for ISOs, we found that shame and uncontrollable emotions, often related to trauma, can make it challenging for clients to stay engaged in treatment (Willemsen, Seys, Gunst, & Desmet, 2016). While cognitive insight was reached early in therapy, persistent empathic responding, focusing instructions and other process directive interventions finally made change possible on a more experiential level.

The second major hindrance in treatment was regular alliance ruptures. From week 113 onwards, Kevin developed the idea that leaving (name treatment center) would make all his problems disappear and he blamed the therapy for making things worse for him. Interpersonal process work with a resolution of an alliance rupture was for Kevin a turning point in his treatment (week 146). He finally realized that holding on to his pattern of exaggerating his problems and blaming others did not help him. Authentic engagement of therapists seemed to make an opening in Kevin's attitude, which made it possible for him to attune to his vulnerability, anxiety, and needs.

#### Limitations

Although this systematic single-case design provides several reliable as well as clinically useful findings regarding the use of a specific therapeutic approach, there are several limitations to our ability to draw inferences about causality. One limitation of this

study is the lack of clear distinction between the treatment phases. Team members working with Kevin in phase B are trained to listen to experiential clues and to improve AR. There are specific interventions integrated in phase B to foster AR, such as art therapy, drama therapy, DGT, relaxation. The effect of these interventions makes it more difficult to capture the incremental value of EFT in phase C. Besides the order-effect, there might be a cross-over effect from the first to the second phase. Given that the research was implemented in a naturalistic setting, it was not possible to preplan alternating phases or conditions to compare the effects. In our research design it is not clear if changes are due to specific interventions rather than to a continuation of an existing trend. The length of treatment creates more opportunities for multiple causes, both from inside and outside of the therapy, to influence the process, which in turn makes it more difficult to draw causal conclusions.

Furthermore, it is important to mention the intrinsic limitations concerning the measurements. Firstly, one could question the suitability of the use of self-report instruments in a forensic population, especially with regard to AR, given these clients often lack self-insight and tend to attribute their problems to external factors. Secondly, the mixed methods design demonstrated that typical statistical measurement does not allow researchers to capture the complexity of change in individuals and that different measures provide different answers to the outcome question (Desmet, 2018; Hill et al., 2013; McLeod, 2013).

A last shortcoming could be the lack of a longer follow-up in terms of recidivism. However, at time of publication, the client has lived an offense-free life in the community for **more than** three years.

#### Conclusions

Consistent with a current trend in forensic literature, this study focused on the possibility to engage ISOs affectively in therapy and facilitate emotional change. According

to the experiential approach, the crucial client task in offender therapy involves becoming able to process emotionally toned experiences in more effective ways and to attend to inner experience in order to acknowledge and fulfill needs in more adaptive ways (Elliot et al., 2004; Gunst, Watson, Willemsen, & Desmet, 2018). It was anticipated that there would be a stronger change in AR, psychological symptoms and distress in phase C with the addition of EFT, which was not confirmed by the quantitative analysis. The mixed methods approach of this study allows us to make sense of the quantitative data on the basis of the qualitative data. The outline of the evolutions on the other outcome measures and their associations with AR are embedded within the broader description of the therapy process. Overall, the client reported remarkable change in affective functioning and personality. Future research is warranted to investigate emotional change in ISOs. Multiple single cases can contribute to the understanding of significant events and mechanisms of change. RCT's could compare treatment as usual (CBT for ISOs) to integrative forensic treatments with a more experiential approach or specific AR training (Gunst et al., 2018). 

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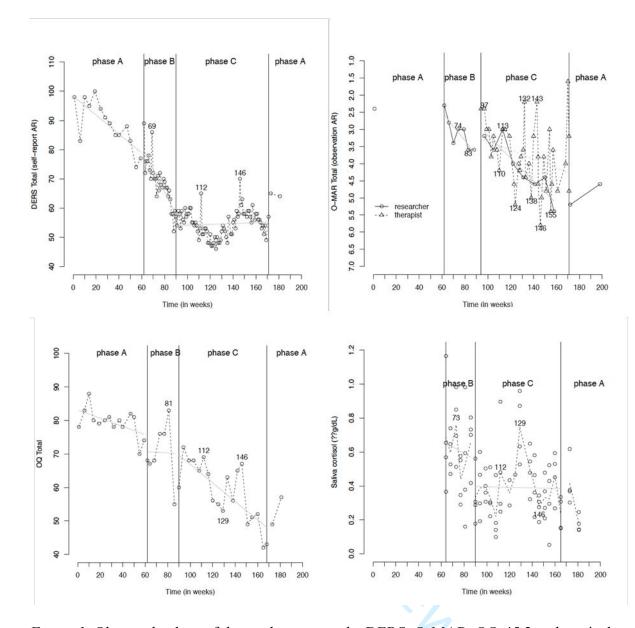
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*Figure 1:* Observed values of the total scores on the DERS, O-MAR, OQ-45.2 and cortisol (µg/dl) during the waiting phase A, throughout the first treatment phase B and the second treatment phase C, and during follow-up phase A. The graph shows the best fitting separate line for each interval. The numbers in the graphs correspond to the time in weeks on the X-axis. Higher scores on the DERS mean more self-reported Emotion Regulation Difficulties. The total scores on the O-MAR rated by the researcher based on the CCI (circles) and rated by the therapist during the second treatment phase C (triangles) based on EFT sessions. The Y-axis represents O-MAR total scores in descending order. Higher scores on the O-MAR mean better AR. A score of 7 corresponds to optimal emotional functioning.