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An experimental pilot study of experiential drama therapy techniques

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Research Article

Evoking emotional states in personality disordered offenders: An experimental pilot study of experiential drama therapy techniques

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ABSTRACT

Offenders with personality disorders (PDs) and the crimes that they have committed are regularly associated with emotional deficits. A renewed focus in forensic treatment is the use of experiential techniques: techniques that have a strong focus on eliciting emotions. However, there is little empirical evidence on the effectiveness of experiential techniques in forensic clients with PDs. In our pilot study, we examined whether three experiential drama therapy interventions are effective in evoking emotional vulnerability and anger in nine offenders with cluster B PDs, that is, clients with DSM-IV Antisocial, Borderline, or Narcissistic PDs. We used a 5 session drama therapy protocol that consisted of an introduction session, a general experiential session, a session to evoke emotional vulnerability, a session to evoke anger, and a wrap-up session. Emotions were assessed using the Mode Observation Scale. Participants showed significantly more emotional vulnerability within all three experiential invention sessions, comparing peak mood after the experiential intervention was initiated to baseline mood. In contrast, clients did not show more anger after the session to evoke anger, or in the other two experiential sessions. Our findings, though preliminary, suggest that experiential drama therapy methods may be effective in evoking vulnerable emotional states in forensic clients with cluster B personality disorders. We discuss the clinical implications of these findings.

Introduction

Emotional disturbances are salient features among personality disorders (PD) (Kring & Bachorowksi, 1999). PD diagnoses are prevalent in offender populations where prevalence estimates range from moderate to high (Blackburn, Logan, Donnelly, & Renwick, 2003; Leue, Borchard, & Hoyer, 2004; De Ruiter & Greeven, 2000). Offenders with personality disorders (PDs) and the crimes that they have committed are regularly associated with emotional deficits (Day, 2009; Jolliffe & Farrington, 2004). For example, some crimes are characterized by a display of excessive anger or rage, while other crimes are more likely a result of a lack or over-control of emotions. The expression and experience of emotions may fluctuate over time; therefore the level of risk due to emotional deficits may also change over time (Douglas & Skeem, 2005; Howells, 2009). Given the risk posed by emotional disturbances, addressing these deficits should be an essential component of forensic treatment.

Therapeutic techniques that focus on subjective experiences, feelings and expression of emotions are called "experiential techniques." These techniques aim to bring emotions into active awareness so that emotional disturbances can be addressed (Leahy, 2007; Mennin & Farach, 2007; Warwar, Links, Greenberg, & Bergmans, 2008). Typical experiential techniques are role-play, imagery and chair-work. Role-play involves re-enactment of original situations from the past or the present, or made-up situations. After the initial role-play, role reversal and rescripting is initiated (Kellogg, 2004; Landy, 2009). During rescripting, the therapists alters painful elements in the scenes that are relived, so that associated thoughts, feelings and behaviors are modified and change is facilitated (Rush, Grunert, Mendelsohn, & Smucker, 2000; Smucker & Niederee, 1995). In chair-work, the client switches between chairs and is invited to have dialogues between different parts

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or emotions of the self. These 'conversations' can also take place between the client and, for examples, a significant other (Kellogg, 2004; Paivio & Greenberg, 1995). Imagery is a technique in which the therapis asks the client to visualize an upsetting childhood memory or traumatic image of their past. Clients are invited to explore their emotions and later on to intervene in the scene with new, healthier responses. Imagery aims to better understand emotions, and how they are related to current triggers (Rafaeli, Bernstein, & Young, 2011; Smucker & Boos, 2005).

Techniques that focus on emotional states have a long history; they originate from Rogerian, existential, and Gestalt traditions (Greenberg, Watson, & Lietaer, 1998; Mennin & Farach, 2007). Today, there is a renewed interest in experiential techniques (sometimes also referred to as "emotion focused" techniques), as well as other therapeutic approaches that focus on emotions. For example, according to Emotion-Focused Therapy ([EFT]; Greenberg, 2002), emotions are intertwined with our basic needs, and create the blueprint of how we see ourselves and the world (Greenberg & Berger, 2001; Pos & Greenberg, 2012). This blue print can turn maladaptive when needs are frustrated and strong affect is ignored or suppressed. The aim of EFT is to reflect on emotional experiences and increase emotional awareness and regulation. Thus, emotions are both the target and the agent for change (Greenberg, 2006; Greenberg & Pascual-Leone, 2006). Several other forms of psychotherapy also target mental states, including aspects of emotional experience, including Cognitive Analytic Therapy ([CAT]; Ryle, 1995; Ryle & Kerr, 2002), Metacognitive Interpersonal Therapy ([MIT]; Dimaggio, Semerari, Carcione, Nicolo, & Procacci, 2007), and Mentalization Based Treatment ([MBT]; Bateman & Fonagy, 2004).

Arts therapies represent another important therapeutic approach that uses experiential techniques to work with emotions. Arts therapies refer to music, drama, art and dance and movement therapies (Carr et al., 2012). These therapies are experience based; they use experiential techniques to help clients access and reprocess emotions. They evoke feelings and explore interpersonal interactions using artistic media (Malchiodi, 2012; Malchiodi & Crenshaw, 2014; North American Drama Therapy Association, 2016). In this study we especially focus on drama therapy. Drama therapy uses different elements and techniques that originate from theatre such as masks, puppets, role-play, and improvisations. These methods are based on the belief that direct experience, rather than talking about experiences, will enable the client to re-experience inner feelings and thoughts (Landy, 2009). Also, play gives the opportunity to experiment, to find out more about a client's inner feelings and thoughts (Johnson & Emunah, 2009).

There is little empirical evidence that substantiates the effectiveness of experiential techniques, although there is a growing body of literature on imagery. Research has shown that visual representations of events trigger more emotions than verbal representations do (Arntz & Weertman, 1999; Holmes & Mathews, 2005; Holmes, Mathews, Dalgleish, & Mackintosh, 2006; Holmes, Mathews, Mackintosh, & Dalgleish, 2008). In a pilot study, Van den Broek, Keulen-de Vos, and Bernstein (2011) examined whether arts therapies are more effective in evoking emotional states than standard psychotherapies in 10 male forensic clients with cluster B personality disorders. Participants were randomized to either Schema Therapy (ST; Young, Klosko, & Weishaar, 2003) or 'Treatment As Usual' (TAU), and also received equivalent arts therapy sessions. Participants showed significantly more healthy emotional states in arts therapy sessions than in their psychotherapy sessions, which was reflected by spontaneous joy and pleasure, attentive self-reflection. Also, clients who received ST, in both psychotherapy and arts therapy, showed twice as much emotional vulnerability as clients receiving TAU (Van den Broek et al., 2011). These findings, though preliminary, suggest that arts therapies in general, as well as ST in both psychotherapy and arts therapy, may be effective at eliciting emotions in forensic clients with PDs. However, this study did not examine the effectiveness of any specific arts therapy techniques at evoking emotional states.

Our study examined whether emotional vulnerability and anger could be evoked in forensic clients with cluster B PDs using an experimental protocol that consisted of experiential techniques carried out by a drama therapist. We aimed to evoke two specific emotional states: vulnerable emotions and anger. We chose these two states because they play an important role in reactive aggression, for example, in cases where offenders stalk or attack their partners in response to feelings such shame, mistrust, or abandonment (Bernstein, Arntz, & de Vos, 2007). Also, vulnerability and anger are basic emotions that forensic clients have difficulty managing. For example, our research suggests that vulnerability and anger are often triggers for acts of violence, which can be seen as a maladaptive means of coping with emotions (Keulen-de Vos, Bernstein, Vanstipelen et al., 2016). Offenders with PDs often remain emotionally detached or avoidant in standard verbal psychotherapy sessions, making it difficult to reach them emotionally. Research has shown the cognitive schemas are most susceptible to modification when clients' schemas are activated ("hot cognitions") (David & Szentagotai, 2006). When clients remain emotionally distant or detached, it therefore makes it difficult to modify the cognitive distortions that are involved in their offenses. Drama therapy interventions activate clients emotionally, triggering their schemas, so that therapists can more easily modify them. These types of interventions are being increasingly used in forensic settings with PD offenders, although these interventions have not previously been studied using experimental paradigms.

We operationalized the emotional states in terms of 'schema modes'. Schema modes are a central concepts in Schema Therapy (ST; Rafaeli et al., 2011; Young et al., 2003), an integrative form of therapy developed specifically for clients with PDs, which incorporates,experiential techniques similar to those in drama therapy (Blokland-Blokland-Vos, Günther, & van Mook, 2008; Griffith, 2003; Weertman, 2012). ST defines schema modes as emotional states that dominate a person's thinking, feeling and behavior at a given moment in time. According to ST theory, there are 4 types of schema modes: Child modes involve the direct experience of primary, negative emotions, such as sadness, fear, or shame. Maladaptive Coping Modes involve the use of dysfunctional forms of coping with emotion (e.g., avoiding emotions). Parent Modes involve self-directed criticism or demands. Healthy Modes involve healthy self-reflection and the experience of joyful, playful emotions.

Current study and hypotheses

We chose to assess schema modes because the mode concept includes the specific emotional states we wished to evoke in this study via drama therapy, namely emotional vulnerability (Vulnerable Child Mode) and anger (Angry Child Mode). Vulnerable Child Mode is an emotional state in which one feels vulnerable or overwhelmed with painful feelings, such as anxiety, grief, or humiliation. Angry Child Mode is a state in which one feels and expresses anger in an uncontrolled manner in response to perceived or real mistreatment or frustration (Rafaeli et al., 2011; Young et al., 2003).

The aim of the study was a specific one: to determine whether particular drama therapy techniques are capable of eliciting vulnerable emotions and anger, respectively, in forensic clients with cluster B personality disorders (i.e., clients with Antisocial, Borderline, or Narcissistic PDs). Although our previous research (Van den Broek et al., 2011) and anecdotal evidence from drama therapists suggests that this might be the case, no previous study

has examined the ability of drama therapy techniques to evoke emotions in forensic clients. Thus, demonstrating that certain experiential drama therapy techniques can evoke emotions is a first step towards validating these approaches for use in forensic populations. We used a five session experimental protocol that consisted of an introduction session, three experimental sessions and a 'wrap-up' session. The experimental interventions were ones that are frequently used by drama therapists and were adapted by one of us (E.P.A.B.), a senior drama therapist, for use in this protocol.

Hypothesis.

1) We hypothesized that the vulnerability-eliciting intervention would evoke more vulnerable emotions ("Vulnerable Child mode"); comparing ratings made before and after the eliciting intervention was initiated.
2) We also hypothesized that the intervention to evoke anger would evoke more anger ("Angry Child mode"), comparing ratings before and after the intervention was initiated.

Method

Setting

This study was conducted at Forensic Psychiatric Centre 'de Rooyse Wissel' (dRW), a maximum secure hospital in The Netherlands. This hospital provides treatment for mentally disordered offenders who are sentenced under the punitive measure '*Ter Beschikking Stelling*' [TBS: disposal to be treated on behalf of the state]. Under Dutch criminal law, offenders can be sentenced to involuntary treatment if their accountability for their crimes is judged to be diminished because of a mental disorder. Most common mental illnesses in secure settings are psychotic disorders, paraphilias, substance related disorders, and personality disorders (Hildebrand & de Ruiter, 2004; Isherwood & Brooke, 2001; Timmerman & Emmelkamp, 2001). In The Netherlands, on average, the length of stay in forensic hospitals is 8–9 years (Brand & van Gemmert, 2009), during which the clients engage in a multi-modal treatment.

Participants

The study consisted of 9 male offenders who were admitted at de Rooyse Wissel. The study was approved by the ethical committee of Maastricht University's Faculty of Psychology and Neuroscience, and the forensic hospital's internal research committee. Participants gave informed consent for participating in the study. Clients who were diagnosed with a cluster B PD were included in the study. Exclusion of the study occurred when clients met the following criteria: (a) the presence of current psychotic symptoms, (b) schizophrenia or bipolar disorder, (c) current drug or alcohol dependence (but not abuse), (d) low intelligence (defined as total IQ <80), (e) serious neurological impairment, and (f) an autistic spectrum disorder.

There were no parameters for emotional vulnerability and anger as inclusion criteria. Also, schema modes were not part of the selection procedure. There were no exclusionary criteria with regard to psychiatric medications or other medications. With regard to psychiatric medications, two clients (22.2%) were prescribed the anti-depressive medications Effexor® and Citalopram®; a third client was prescribed the detoxification medication (Naltrexone®) because of chronic alcohol dependency. Four clients (44.4%) were prescribed somatic medications for either hypertension (Enalapril®), headaches (Paracetamol®), or asthma (Salbutamol®).

Table 1 displays the descriptive information of our participants. The mean age of the participants at time of enrolment was 38.2 years (SD = 7.6). The average length of stay in dRW at the time of the study was 24.4 months (*SD* = 8.7). Regarding the type of crime committed, most of the crimes were crimes of aggression causing harm to others or death. Participants' mean total IQ score, as measured with the Wechsler Adult Intelligence Scale–III (WAIS-III; Wechsler, 1997), was 103.1 (*SD* = 9.6).

Among DSM-IV Axis I disorders (American Psychiatric Association, 1994), the two primary diagnoses were substance use related disorders ($n = 7$) and paraphilic disorders ($n = 4$). Just one client was classified with a mood disorder. Among DSM-IV Axis II disorders (APA, 1994), 4 of the participants were diagnosed with an Antisocial PD and 4 with a Borderline PD. One client had more than one PD diagnosis: he was diagnosed with Antisocial, Borderline, and Narcissistic PDs. The mean psychopathy score of the participants, as measured with the Psychopathy Checklist-Revised (PCL-R; Hare, 2003), was 18.6 (*SD* = 7.9). Three clients had scores indicative of psychopathy when using a cut-off of ≥ 25: participants 4 (PCL-R = 25), 6 (PCL-R = 28.4), and 7 (PCL-R = 32) (Table 1).

Measures

The DSM-IV diagnoses, psychopathy and IQ scores were retrieved from existing client files and were based on diagnoses made by psychiatrists. Information regarding psychopathy and IQ were based on psychological assessments performed by members of dRW's diagnostic department of whom all members were trained as clinical psychologists. Participants were diagnosed for psychopathy with the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) and IQ with the Wechsler Adult Intelligence Scale–III (WAIS-III; Wechsler, 1997). Both instruments have been translated and validated in Dutch samples, and have demonstrated good reliability and validity in numerous studies (Hare, Clark, Grann, & Thornton, 2000; Kosson, Smith, & Newman, 1990; Wechsler, 1997).

Mode observation scale

The Mode Observation Scale (MOS; Bernstein, de Vos, & Van den Broek, 2009) is an instrument that assesses the intensity of schema modes in psychiatric and forensic clients, based on observations of clinical situations. We chose an observation-based instrument instead of a self-report measure of schema modes because forensic clients' self-reports are often unreliable (Cima, 2003; Keulen-de Vos, Bernstein, Clark, Arntz, Lucker, & de Spa, 2011; Lobbestael, Arntz, Löbbes, & Cima, 2009; Sieswerda, Arntz, & Wolfis, 2005). The MOS rates 18 schema modes, including the 2 modes we assessed for this study, on a 5-point Likert-type scale (1 = absent; 5 = extremely intense). The modes are rated based on their maximum intensity within a predetermined rating interval (e.g., one minute intervals). Detailed descriptions of the modes were provided in a manual (Bernstein et al., 2009).

Procedure

Drama therapy protocol

The purpose of our study was to evoke anger and vulnerable emotions that were defined as feeling vulnerable, feeling overwhelmed with painful feelings. We created a protocol for the purpose of our study in which the drama therapist uses different techniques in drama and play. The actual content of the sessions is reality-based. Forensic clients often have an inability to think abstractly. Therefore, to enable the client's ability to empathize with the situation, or the sake of clarify for the client, we stayed as close to reality as possible. Historically, realistic play belonged to the practice of psychodrama, and drama itself was seen as recreation. Early 20th century, this balance was shifted

Table 1
Descriptive information and peak vulnerability scores per client.

Client	Age	Axis II diagnoses	PCL-R	Session 2		Session 3		Session 4	
				Vulnerability Peak Score	*Anger Peak Score*	*Vulnerability Peak Score*	*Anger Peak Score*	*Vulnerability Peak Score*	*Anger Peak Score*
P1	48	BPD	9.0	3.0	3.0	2.5	1.0	4.0	1.0
P2	32	ASPD	14.0	1.0	1.0	1.0	2.0	2.5	1.0
P3	46	BPD	15.8	1.0	1.0	–	–	1.0	1.0
P4	45	ASPD	25.0	2.5	1.0	2.0	1.0	1.0	1.0
P5	30	BPD	13.7	2.0	1.0	3.0	1.0	2.5	1.0
P6	27	ASPD	28.4	1.0	1.0	1.0	3.0	2.0	1.0
P7	39	ASPD, BPD, NPD	32.0	2.5	1.0	3.0	1.0	1.5	1.5
P8	42	BPD	12.0	–	–	1.0	2.0	3.0	1.0
P9	35	ASPD	17.9	2.0	1.0	2.0	2.5	1.0	2.0

Note. ASPD = Antisocial PD; BPD = Borderline PD; NPD = Narcissistic PD; PCL-R = Psychopathy Checklist-Revised total score; * = data is missing because DVD was defective; Session 2 = family table intervention; Session 3 = vulnerability session; Session 4 = anger session.

by the acknowledgement that drama itself is therapy. From then on, realistic play activities are also part of the expressive language and therapeutic process of drama therapy. According to Emunah's (1994) five phase model, realistic play can be seen a part of phase 4 (culminating enactment). The protocol in this study reflects contemporary drama therapy interventions. The protocol consisted of 5 individual therapy sessions. The order of sessions 3 and 4 was counterbalanced in order to prevent order effects. Participants with even ID numbers received the following order of sessions: session 1, session 2, session 3, session 4, and session 5. Participants with uneven ID numbers received session 1, session 2, session 4, session 3, session 5.

Session 1–introduction

In this session, the basic rules of drama therapy, such as play versus reality, are introduced and explained. The drama therapist also introduces the 4 basic emotions: anger, happiness, sadness and anxiety. By picking cards, the client is invited to play these emotions together with the drama therapist. At the end of this session, the dramatherapist evaluates what the client experienced, for example, how he felt and what he thought.

Session 2–family table

This session is an assessment and exploration session. In this session, the client is asked to explain his home situation with family members or other caregivers when he was a child. The client visualizes his family at a dinner table and is invited to talk about their names, their characteristics, their gestures, and specifically how they behaved towards the client at the time. Using props and furniture, the home setting is created in a way so that it has maximum similarities to the memory of the client so that it may activate some of the client's childhood and core emotions. In other words, the enactment in session 2 provides the therapist a clear understanding of client's potential (dysfunctional) schemas and emotional states that originate from childhood. At the end of this session, the client is asked how he experienced it, how he feels about this childhood situation.

Session 3–evoking emotional vulnerability

Based on the previous session, the drama therapist has a sense of which of the client's needs have not been met in the past. Often these needs are basic, such as warmth, trust, care and protection. The therapist asks the client for a specific situation in which a particular need was neglected or violated. For example, the client wanted to share his worries with his mother but she ignored him. In this case, the therapist will play the mother while the client plays himself. When the scene is first enacted, the therapist observes the client, and the matter in which his needs are not met. The therapist deliberately gives room for more vulnerable sides of the client to be expressed. After playing the scene, the therapist will ask the client about his emotions and his needs. After this, the therapist asks the client to switch roles. The therapist will play the role of the client, the client the role of 'the other person'. Then, role-play continues with rescripting or changing the course of the original situation. A more positive atmosphere is created in which the needs of the client are met instead. The aim of this session is to access a client's hidden feelings of emotional vulnerability. At the end of this session, the client is asked to reflect upon the scene, his own thoughts and feelings.

Session 4–evoking anger

In this session, the client is asked about a recent situation in which he felt really angry. The drama therapist and client discuss who were involved in the situation, what happened and why, and how did this particular situation made the client think and feel. Often the client felt misunderstood, hurt, made a fool of, or humiliated by others. The client is asked to play the 'angry' part, while the therapist will play the object of his anger/conflict in the scene. The scene is set in a fictional way, which means that details are changed. The client is asked to exaggerate what has happened in real life. After this, the therapist asks the client to switch roles. The therapist will play the role of the 'angry one', the client the role of the object of anger/conflict. In this scene also the therapist will exaggerate the conflict and the expression of emotions in order to access more problematic emotions (e.g., anger, frustration) that are blocked. The aim of this session is to access a client's repressed anger. At the end of this session, the therapist and client evaluate the play and focus on any real emotion that may have occurred during the play.

Session 5–'Wrap up'

In this last session, the therapist and client look back on the previous sessions, and the client reflects on what has been played and how this was experienced by him. The drama therapist also reflects and gives feedback on the sessions.

De-rolling procedure

The therapist took a number of steps to insure that clients had no undue adverse reactions to the drama therapy sessions. First, she always gradually introduced the interventions and made frequent use of "time-outs" to safeguard a client's safety. It is a procedure where the client or therapist can stop the intervention if, for example, the client becomes overwhelmed by his emotions. At the end of every session, the therapist evaluates what the client experienced, how he felt. This serves to assist to move out of the dramatic engagement in which they have been involved. The final session served as a closing sessions. It is the closure and retrospection on the preceding treatment sequence that "assists clients in carrying the changes made within the context of drama therapy to the

outside world", and resembles the final stage of Emunah's five phase model (Emunah, 1994; Gilhuis, de Laat, & van Hest, 2014). In addition, the therapist checked up on each client after every session, and communicated regularly with ward staff to inform them of any reactions that the clients had, so that they could be dealt with appropriately. In one case, a client ended a session early because of feeling upset during the protocol, and became overtly angry after returning to his room. However, the client was able to discuss these feelings, and continued his participation in the protocol the following week. There were no other instances of adverse reactions to the drama therapy protocol.

Therapist

The drama therapist who conducted the protocol (R.V.) was trained (Bachelor of Arts) and experienced to work with offenders. She was regularly supervised by a registered senior drama therapist (E.P.A.B., registered by the Dutch Arts Therapy Register (SRVB)). The drama therapist was introduced to the exercises and the (alternating) order of the sessions. For the purpose of our study, she was specifically asked not to talk about schema modes or use schema therapy language, to make sure that the sessions were purely drama therapeutic and not a variation of schema therapy.

Rating schema modes

All sessions were videotaped and rated with the Mode Observational Scale (MOS; Bernstein et al., 2009), an instrument we have developed and used in our previous study (Van den Broek et al., 2011) to rate schema modes. The drama therapist videotaped all sessions so that they could be rated by independent raters. Tapes were rated by three trained master students from Maastricht University's Faculty of Psychology and Neuroscience who participated in the Forensic Master's program to be trained as forensic psychologists. They received two days of training by two of the authors (E.P.A.B. and D.B.) which consisted of reading relevant literature and watching videotapes about schema therapy, schema modes, arts therapy in general and drama therapy in specific. After watching the tapes, several emotional states were role-played so that the students got a clear sense of how particular schema modes can be visible in clients. The students also rated arts therapy tapes together with the trainer (E.P.A.B) and discussed their ratings afterwards. The students then independently rated 5 tapes that were also rated by the trainer (E.P.A.B). These practice tape ratings were tested for inter-rater reliability; the reliabilities for Vulnerable Child mode and Angry Child mode were excellent, with ICCs of 0.99 and 0.87, respectively. For our study, the students rated the videotapes of the sessions on a minute-by-minute basis; sessions lasted 45 minutes on average. The ICCs for the sessions in our study were 0.94 for Vulnerable Child mode and 0.86 for Angry Child mode. These findings are consistent with previous studies that demonstrated acceptable to good initial inter-rater reliability in forensic samples for most schema modes, based on MOS ratings (Keulen-de Vos, Bernstein, & Arntz, 2010; Van den Broek et al., 2011). The students were blind to any information about the clients. They watched the tapes together but rated the tapes independently from one another. We averaged the ratings of pairs of student raters.

Statistical analyses

The order of the session 3 (evoking vulnerability) and 4 (evoking anger) was counterbalanced to avoid order effects. However, our study consisted of an uneven number of clients which resulted in an incomplete counterbalance: the different ordering of the sessions was not equally represented. We conducted repeated measures ANOVA with 'order of sessions' as an extra factor to examine whether this had an influence on our results. Results were non-significant; therefore, we have disregarded the inequality in counterbalancing in our further analyses. Our counterbalancing did not include session 2, because it is an assessment and exploration session, and needs to be conducted prior to sessions 3 and 4.

For all sessions, we rated the MOS on a minute-to-minute basis. Furthermore, one of us (M.K.) viewed the tapes to determine the point at which the intervention in a session began and ended. For the experimental sessions, we calculated baseline scores – reflecting the average of ratings that were made prior to the start of the intervention – and a 'peak' score that reflected the highest score during the intervention. The peak score did not include ratings from when the client was no longer in scene work or roleplay. We were interested in the highest ('peak') schema mode scores during the intervention, because we were interested whether there would be more mode intensity as a result of evoking a particular emotion.

We chose to analyze the data by aggregating the data across participants instead of a single subject analysis. The power of the analyses we conducted is similar to that of a multi-subjects approach. We did not choose a repeated measure ANOVA because the omnibus F-test of the null hypothesis that all sessions are equal has low power (e.g. five sessions of nine clients). We also chose against the use of a multivariate ANOVA because of our small number of participants (e.g., more measurements than participants which leads to collinearity). Instead, we chose to test three comparisons that corresponded to our three a priori hypotheses, using paired samples *t*-tests: comparing emotional vulnerability and anger peak and baseline scores in the family table session (session 2), the session to evoke emotional vulnerability (session 3) and the session to evoke anger (session 4) (i.e., one comparison using emotional vulnerability scores, and the other using anger scores). For both session 2 and 3, data was missing for one participant due to technical problems with the video recording. To test for significant differences, we used paired-samples *t*-tests with a two-tailed alpha of 0.05. We did not Bonferroni correct for the 3 hypothesis-driven comparisons, because the *t*-tests reflect independent comparisons and not multiple comparisons with the same means. Effect sizes were calculated using d = t/SQRT(N). All data were analyzed with the Statistical Package for the Social Sciences (SPSS, 2005), version 13.0.

Results

The minute by minute Vulnerable Child and Angry Child mode scores across the three experimental sessions is depicted in Fig. 1.

Hypothesis 1. Participants expressed significantly greater emotions in the family table session (session 2) after the intervention was initiated than at baseline. Specifically, the intervention elicited more Vulnerable Child mode ($M = 1.88$, $SE = 0.28$) when compared to the baseline score ($M = 1.0$, $SE = 0.006$, $t(7) = -3.13$, $p = 0.017$). The effect size was Cohen's d = 1.18. In contrast, clients did not express significantly more Angry Child mode after the intervention ($M = 1.25$, $SE = 0.25$) was initiated than prior to it ($M = 1.00$, $SE = 0.00$, $t(7) = -1.00$, $p = 0.35$). The effect size was Cohen's d = −0.38. Consistent with our hypothesis, within the vulnerability session (session 3), clients expressed significantly more intense Vulnerable Child mode after the intervention was initiated ($M = 2.06$, $SE = 0.30$) than prior to the start of the intervention ($M = 1.09$, $SE = 0.06$, $t(7) = 3.26$, $p = 0.014$). The effect size was Cohen's d = 1. 23. Participants also expressed more Angry Child mode in the vulnerability session after the intervention was initiated ($M = 1.56$, $SE = 0.26$) than prior to evoking the emotional response ($M = 1.00$, $SE = 0.003$, $t(7) = 2.18$), though this finding nearly reached significance ($p = 0.06$). The effect size was Cohen's d = 0.82.

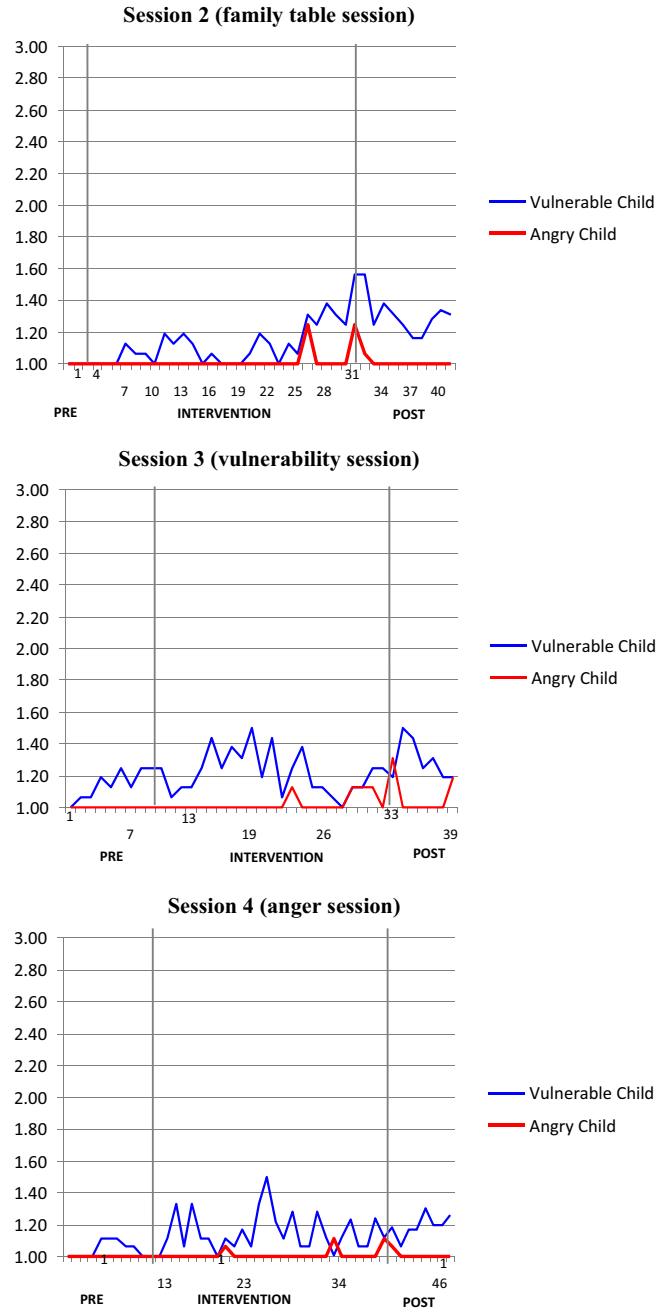

Fig. 1. Average minute by minute mode scores for the three experimental sessions.

Hypothesis 2. In contrast to our hypothesis, clients did not expressed significantly more AngryChild mode after the intervention that was intended to elicit this emotional state ($M = 1.17$, $SE = 0.12$) was initiated than prior to the induction ($M = 1.00$, $SE = 0.008$, $t(8) = 1.41$, $p = 0.19$). The effect size was Cohen's $d = 0.50$. However, clients expressed significantly more Vulnerable Child mode in the anger session (session 4) after the intervention was initiated ($M = 2.33$, $SE = 0.26$) than prior to the intervention ($M = 1.00$, $SE = 0.006$, $t(8) = 5.06$, $p = 0.001$). The effect size was Cohen's $d = 1.79$.

Exploratory

Further, on an exploratory basis, we compared emotional vulnerability in each experimental session to all of the remaining sessions, using a Bonferroni-corrected p-value of $p < 0.0125$ (i.e., 05/4). Participants showed greater intensity of emotional vulnerability in the vulnerability-induction session ($M = 2.06$, $SE = 0.31$) than in the wrap-up session ($M = 1.25$, $SE = 0.13$, $t(7) = -2.88$), a difference that was not statistically significant after Bonferroni correction ($p = 0.024$). The effect size was Cohen's $d = -1.09$. Participants showed significantly more Vulnerable Child mode in the anger-induction session (session 4) ($M = 2.33$, $SE = 0.26$), than in the wrap-up session ($M = 1.22$, $SE = 0.12$, $t(8) = 3.73$, $p = 0.006$). The effect size was Cohen's $d = 1.32$. Participants in the family table session (session 2) did not show more emotional vulnerability than in the other four sessions. There was little Angry Child mode observed in any of the sessions, so we did not conduct statistical analyses comparing levels of anger across the different sessions.

Discussion

Forensic clients with cluster B personality disorders showed significantly more emotional vulnerability after the experimental interventions were initiated, compared to baseline mode ratings in the same sessions. This was true for all three experimental drama therapy sessions – the family table, vulnerability-induction, and anger-induction – and not only the session that was intended to evoke emotional vulnerability. Thus, all three of these procedures evoked emotional vulnerability in these participants, while forensic clients with personality disorders are often characterized as being quite emotionally detached. Although the peak levels of emotional vulnerability were of low to moderate intensity, this is still noteworthy, given that these clients had only had one session of contact with the drama therapist before the experimental sessions were initiated. Furthermore, the mode scores are comparable to Van den Broek et al. (2011). Additionally, the emotions expressed by these clients during the experimental sessions may have been more intense than their outward manifestations suggested. In a post-protocol debriefing, the clients reported having found the drama therapy sessions to be quite emotional. Thus, given the observation that many forensic clients with personality disorders remain quite emotionally detached, even after months or years of psychotherapy, our findings suggest that drama interventions may be particularly rapid and effective in accessing vulnerable emotions in these participants. The literature differentiating primary from secondary psychopathy may be relevant to this issue; some individuals are high in psychopathy and anxiety whereas others who are high in psychopathy are low in anxiety (Falkenbach, Stern, & Creevy, 2014; Murphy & Vess, 2003; Skeem et al., 2007). Perhaps secondary psychopaths endorse more emotionality than low-anxious primary psychopaths.

Our findings are in line with the guiding assumption of drama therapy that experience, as evoked through role play, enables the to get in touch with his emotions (Malchiodi, 2012), and is consistent with a recent study showing that drama therapy increases emotional expression (Blacker, Watson, & Beech, 2008). Our findings support the idea that drama therapy interventions are effective in evoking vulnerable emotions in forensic clients, including in some clients who are classified 'psychopathic', who are sometimes emotionally detached. The emotional detachment of these participants contributes to the difficulties that many treatment providers experience in engaging them in therapy (Howells, Day, & Wright, 2004; Howells & Day, 2006). Traditional verbal forms of psychotherapies may be limited in their ability to reach these clients emotionally (Bergman, 2000; Greenwald, 1992). Drama therapy, which utilizes experiential interventions to evoke emotions, may be a more effective alternative or ancillary form of therapy with this challenging population.

We were not able to confirm our hypothesis with respect to anger. The session that aimed to evoke anger did not elicit more

anger compared to baseline levels. Although some anger was observed in the session that evoked emotional vulnerability induction, this finding nearly reached significance, and levels of anger appeared to be lower than those of emotional vulnerability of our participants. There are several possible explanations for why the anger session failed to elicit anger. First, some of the clients in our sample might be characterized as over-controlled. Over-controlled individuals typically inhibit their anger expressions excessively, and use avoidance as a strategy for coping with their emotions (Davey, Day, & Howells, 2005; D'silva & Duggan, 2010; Greene & Coles, 1994). This was evident in one of the participants in our study, who aborted the session because he felt too overwhelmed by anger. After the session, he expressed an angry outburst during which he destroyed paintings in his room. This observation suggests that when over-controlled clients are no longer able to use avoidance as a coping strategy, their control over emotions may break down altogether. Therefore, over-control can be a risk for harm. Second, certain clients may not have felt comfortable expressing anger in the forensic setting. Within a forensic hospital, there is a restrictive atmosphere in which there are rules with regard to expression of anger and aggression (Lemerise & Dodge, 2000; Mobley, 2006). For example, display of verbal or physical anger has social consequences in terms of privileges that clients may or may not have (Gross, 2001). These consequences may potentially lead to social desirable responding and thus, in this case, to suppression of anger (Haywood, Grossman, & Hardy, 1993; Sieswerda et al., 2005).

Limitations

Several limitations of this study should be acknowledged. First, this study was an initial investigation of whether emotional states could be evoked in forensic clients with cluster B PDs. It was based on a small number of participants with diagnoses based on clinical ratings rather than assessment by structured instruments, which affects the generalizability and possible power of our findings. However, with respect to power, at least for the emotional vulnerability intervention, this small number was sufficient to show a significant difference between interventions. Also, due to the small participant size, we were unable to compare different categories of PDs and non-PD offenders. Second, our study defined emotional vulnerability as feeling vulnerable, overwhelmed with painful feelings, such as anxiety, depression, grief, or shame/humiliation. These feelings refer to moral emotions. Increased awareness of one's moral emotions may decrease an offender's risk of re-offending. However, emotional distance or detachment may also have a protective purpose. Further research is needed to disentangle the concept of (increased) emotional vulnerability. Third, although the absolute value of the levels of emotional vulnerability and anger is low, they are just the external manifestations of these schema modes. In other words, we had only one outcome measure, the MOS, which relied on observational ratings. Although these ratings are informative with respect to the expression of emotions, they may not be indicative of the client's experience of emotions. The subjective emotional experience of the clients may be more or less intense. Therefore results might have differed had we also used self-reports of emotion. Also, emotions can be expressed in subtle ways. For example, emotional vulnerability may be expressed by teary eyes, or 'breaking' of the voice, and feeling 'choked up', whereas anger may be expressed by overt aggression or by more subtle indications. In future studies, we will add additional measures of emotion to our protocol, and investigate different aspects of emotion that are evoked by drama therapy techniques, such as subjective mood, physiological arousal, cognitive aspects of emotion. Fourth, the anger induction we used may not have been 'provocative' enough. There are several ways of evoking anger, such as film, an interview, or critical statements (Gross & Levenson,1995; Philippot, 1993; Stemmler, 1997). For instance, a recent study by Lobbestael, Arntz, and Wiers (2008) has shown that critical statements were most effective in evoking anger. Perhaps our anger session did not contain enough (appropriate) 'provocation'. Fifth, the anger session focused on a recent situation, while this is not the case in the emotional vulnerability session and family table session. This may have influenced our findings; perhaps the use of childhood experiences would have elicited more anger. Sixth, there was only one therapist who participated in our study, which hampers the ability to separate the effects of the interventions from those of the therapist. For example, it may be that this particular therapist was better at eliciting emotional vulnerability than anger. Seventh, two out of nine clients were prescribed anti-depressant medication. Sometimes these medications my dull a client's ability to experience strong emotions (Opbroek et al., 2002; Price et al., 2009). However, two clients (P7 and P8) did not show lower emotional vulnerability scores than the other seven clients after the emotional vulnerability evoking interventions. However, we don't know their emotional vulnerability or anger scores prior to the start of the study. Finally, the study was not double-blind; thus both the supervisor and the therapist carrying out the protocol were aware of the hypotheses under investigation. However, this is almost always true of mood induction procedures, which involve deliberate attempts to evoke particular mood states. Thus, it is not possible to deliver these interventions while remaining blind to their intentions. Furthermore, the students who rated the clients' emotional states were blind to the study's hypotheses, and were also kept blind to any information about the clients, except the fact that they were forensic clients.

Further research on evoking emotional states in offenders with cluster B PDs is needed. Although frequently used in forensic clients, there is little evidence on the effectiveness of arts therapies in these populations in general, and for drama therapy in particular. In addition to replicating this study in a larger sample and revising the protocol with respect to anger, future research should focus on particular personality disorders in offenders, and should compare forensic clients with PDs to various control groups, such as forensic clients with no PD, and normal controls. Another line of research is to focus especially on psychopathic offenders who are considered to have a lack of emotional responsiveness. The fact that all three psychopathic clients showed some evidence of emotional vulnerability during the drama therapy interventions is worth attempting to replicate in a larger sample of clients with high levels of psychopathy. If drama therapy techniques can access vulnerable emotions in psychopathic clients, it would raise intriguing possibilities regarding enhancing emotional processing in these clients, who are usually considered difficult or impossible to treat using standard forms of psychotherapy (Keulen-de Vos, Bernstein, & Duggan, 2016; Salekin, 2002). Our findings pave the way for other studies which can examine whether experiential techniques carried out by drama therapy can lead to better emotional regulation and integration, as well as improved clinical outcomes. In addition, future research should examine the (long-term) effects of emotion induction on emotion regulation, how emotions are communicated, and whether the effects of mode induction are stable over the course of time.

This study supports the idea that the experiential interventions in our experimental protocol carried out by drama therapists can evoke emotional vulnerability in forensic clients with personality disorders. Our anger hypothesis was not supported. From a theoretical perspective, the induction of emotional states provides support for a guiding assumption that certain experiential interventions trigger vulnerable emotional responses. From a practical perspective, this study suggests that experiential techniques carried out by

drama therapists may be effective in accessing vulnerable emotions in forensic clients with cluster B PDs.

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