Identifying client emotional signatures:
Development of a new scale

Michelle Webster,
Institute for Emotionally Focused Therapy,
Annandale, Sydney 2038
Email: Michelle@EFTherapy.com

Julie Fitness
Department of Psychology,
Macquarie University,
Sydney 2109
Email: Julie.fitness@mq.edu.au

Contact: Dr Michelle Webster
Ph: (02) 9552-2977
Email: Michelle@EFTherapy.com
Address: PO Box 97, Annandale, NSW, 2038

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Abstract

This article describes the development and refinement of the Annandale Emotional Signature Scale; a measure that was subsequently employed as part of a battery of tests to explore the validity of the constructs of abandonment and annihilation. The Annandale Emotional Signature Scale (AESS) was first developed and administered to undergraduate psychology students, followed by a group of practitioners who were aware of the abandonment and annihilation dimensions. Based on the results with these sample populations, the AESS scale was modified and administered to a clinical population. From these studies with three different samples, two highly reliable factors emerged from the AESS. The Abandon factor comprises items describing feelings of inadequacy, self-critical thinking, and pleasing behaviours that indicate anxiety and worry about over-responsibility and rejection by others. The Annihilate factor comprises items describing adverse and traumatic events from the past, as opposed to currently anxious feelings and self-critical thoughts. Overall, the results of these studies indicate that, in line with our initial clinical observations, two different dimensions in client profiles may be identified, each with their own characteristic signature of feelings, thoughts and behaviours, and childhood memories.

Key words: emotion focused therapy, emotional signature, emotion scheme, abandonment, annihilation

Introduction

Psychotherapy research has consistently shown that across treatment modalities, the therapeutic alliance is vitally important to the success of treatment. Indeed, the therapeutic relationship has been described as accounting for 30% of variance in therapeutic outcomes (Lambert 1986, 1992). Emotion Focused therapy (Greenberg, Rice & Elliott, 1993; Greenberg & Paivio, 1997) evolved from client-centered, gestalt and existential therapeutic approaches, and is regarded as a contemporary, process-experiential approach that recognises the importance of the relational conditions required for accepting and valuing clients, and creating a safe working environment. While the essence of the treatment involves the processing of emotional experience and the transformation of the underlying emotion schemes that influence interpersonal functioning (Greenberg, 2006; Greenberg et al., 1993; Greenberg & Pascual-Leonie, 1995, 2001; Greenberg & Paivio, 1997), there has been little exploration of how these emotion schemes might be utilised in the development
of the therapeutic relationship. In this article we argue that if practitioners can identify diagnostic cues to clients’ emotion schemes, they will be better able to relate and form effective therapeutic relationships.

Recent reviews of psychotherapy research have established the importance of attending to client individual differences and matching therapeutic responses and tasks to them (Bohart & Tallman, 2010; Beutler, Harwood, Kmpara, Verdimarme & Blau, 2011; Lebow, 2006). From the beginning of the first session, therapists are confronted with the uniqueness of every client in terms of their presenting problems, their style of emotional processing, and their mode of interpersonal relating (Greenberg et al., 1993). Therapists need to be able to perceive the individuality of the person in the client and respond appropriately to their concerns from the very first moment.

The different styles of emotional processing and interpersonal relating that clients demonstrate can be understood in terms of emotion schemes, or emotional memory structures (Greenberg, 2011). Originating in childhood, emotion schemes are nonconscious mental structures that integrate affective, cognitive, motivational and relational knowledge and organise emotion-related experiences, memories and responses (Greenberg et al., 1993; Greenberg, 2011). While for many people emotion schemes are coherently organized and serve adaptive functions in their relationships, others may hold disorganized and/or maladaptive emotion schemes that generate dysfunctional relationship behaviours; e.g. numbing or dissociative behaviours in adult situations may derive from emotion schemes based on traumatic childhood experiences involving abuse or neglect.

Over the past 20 years the trainers at the Institute for Emotionally Focused Therapy have been exploring how clients’ experiences of themselves and others, and their ways of responding and relating to others, are derived, at least in part, from the kinds of childhood experiences they have undergone (Webster, 1994; 1999). In particular, clinical observations suggest that parental acts of omission involving neglect and abandonment are experienced differently by clients to parental acts of commission involving abuse and trauma. Further, clients who have experienced neglect and abandonment appear to develop a way of relating to themselves and others that can be distinguished from clients who have experienced emotional, verbal, physical and sexual abuse. These distinctive ways of relating to self and others may be understood as representing different emotional profiles, and as such can be described as emotional signatures.

A descriptive analysis of emotional signatures has previously been elaborated along the dimensions of abandonment and annihilation (Webster, 1999). According to this analysis, individuals with an abandoned emotional signature present as anxious, confused, self-doubting and compliant. Conversely, individuals with an annihilated emotional signature present as being more assured, but also as more angry, assertive/aggressive, other-blaming and challenging of the therapist. The abandoned group of clients requires more warmth and empathy from practitioners than the annihilated group, which requires more cognitive understanding, matter-of-factness
and conciseness. Further, the focus for individuals within sessions is different: for the abandoned group the emphasis is on empathically responding to what the client reports of their experiences in childhood and empathically responding to what they felt; whereas for the annihilated group it is acknowledging and understanding the content of their trauma. The focus here for practitioners is with the ‘facts’ and details of childhood, and the acceptance and summarising of the content as provided.

One of the most difficult challenges at the beginning of therapy is to quickly establish rapport with clients, and to give them a sense of being heard and understood. Hence, the ability to readily identify clients’ emotional signatures at the beginning of therapy would potentially be of great value to clinicians both at the beginning of the therapeutic relationship, and as they plan what will be required of the relationship as it develops. Recognising the characteristic verbal and nonverbal styles associated with each emotional signature would enable clinicians to quickly develop a connection with the client by modifying different facets of their own relating, ranging from altering the degree of empathic response to using different types of questions to facilitate the exploration of the clients’ narratives. Recognising clients’ emotional signatures would also help determine which aspects of emotional experience (feelings, thinking and/or behaviour) may be most effectively targeted.

The overall aim of the research described in the current paper was to further explore and establish the construct validity of the abandoned and annihilated emotional signatures, with the possible goal of providing practitioners with a measurement tool (the Annandale Emotional Signature Scale) that could be used to assist in the fine-tuning of therapeutic engagement and organising treatment pathways. In the first pilot study, the authors identified a large number of items that were potentially relevant to the constructs of Abandonment and Annihilation. After testing with a group of senior practitioners, the most relevant items were then collated into a scale for testing with three different samples: University students (Study 1), practitioners (Study 2), and clients (Study 3).

Pilot Study

The first step in developing the Annandale Emotional Signature Scale (AESS) scale was to create a list of characteristics describing the annihilated and abandoned dimensions of emotional signatures (Dawes, 2000). A list of 234 discrete items describing different kinds of childhood and adult experiences, and feelings and thoughts about the self and others was compiled by exploring the available literature, examining client transcripts, reviewing notes from discussion groups and trainers’ lectures, and reviewing student assignments at the Institute for Emotionally Focused Therapy. Sample items included: ‘My mother gave approval selectively’; ‘I felt ignored in my childhood’; ‘I can feel angry when I am overlooked or dismissed’; ‘I worry about whether I am good enough’; ‘I can be suspicious of the reasons others give’; and ‘I try and not feel feelings’. The 234 descriptor items were grouped into 8 categories that emerged from analysing the list for commonalities: specifically,
Statements describing maternal and paternal figures; the self in childhood; feelings; thoughts; statements about relating to the self and others, and about others relating to the self. The items were then sorted by the first author according to whether or not they were theoretically more characteristic of abandonment or annihilation. The final abandonment list comprised 124 items, and the annihilated list comprised 110 items. These lists were then given to seven senior clinicians with expertise in the field of Emotion Focused Therapy and an average of 18.6 years counselling experience ($SD = 7.9$, range 7-29 years). Their ages ranged from 34-52 years ($M = 47.7$, $SD = 6.4$) and all held postgraduate qualifications (1 PhD, 2 Masters, 4 Double postgraduate diplomas). The clinicians were asked to go through the lists and to rate each item for the extent to which they believed it was characteristic of abandonment or annihilation, using 5-point Likert scales (with 1 being not at all characteristic and 5 being completely characteristic). They were then asked to rank order the items in each list from the best to the worst example of abandonment or annihilation (see Brod, Teller & Christensen, 2009) for more information on methods of assessing content validity.

Results and Discussion

A series of paired-sample T-tests revealed significant mean differences in ratings for 71 items with respect to whether they were considered typical of the abandoned or annihilated signatures. The 35 items rated as most characteristic of the abandonment construct reflected themes relating to parental neglect, feelings of insecurity, anxiety, need to please others, lack of safety, lack of identity, personal survival being about not upsetting other people, and having other people’s approval moderating one’s own anxiety. The 36 items rated as most characteristic of the annihilation construct reflected themes relating to parental abuse, active rejection rather than neglect, personal survival being about self-reliance, rejection of hurtful others, and emotional distancing strategies.

The next step of the research was to explore the discriminant validity of the Annandale Emotional Signature Scale (Borstein, 1996; McKenzie, Wood, Kotecki, Clark, & Brey, 1999). In order to do this, the scale was administered to three different samples along with two other questionnaires measuring aspects of childhood trauma and adult attachment. These measures and procedures are described below.

Study 1

Method

Participants and procedures

First year undergraduate psychology students at a major metropolitan University volunteered to be involved as part of their course requirements to participate in psychological research. The student sample consisted of 138 (102 female, 36 male) undergraduate students with a mean age of 20.4 years ($SD = 5.2$, range 18-47). Students were assured that participation was voluntary and that their responses were anonymous. They were told that a new measure of feeling, thinking and behaving in
the context of relationships was being developed, and that if they chose to participate, they would be asked to respond to three questionnaires that explored aspects of their childhood and current relationships. The survey was also made available online, and advertised to students who might want to complete it. Instructions were provided for accessing psychological debriefing if participants wanted it.

**Measures**

*The Annandale Emotional Signatures Scale (AESS).* The 71 items identified from the pilot study were presented in randomized order, accompanied by 5-point Likert scales ranging from 1 (never true) to 5 (very often true).

*The Childhood Trauma Questionnaire (CTQ)* is a 28-item self-report inventory that provides reliable information about, and screens for, recalled histories of abuse and neglect (Bernstein & Fink, 1998). Participants are asked to respond to the items on 5-point Likert scales ranging from 1 (never true) to 5 (very often true). Childhood experiences are categorised into five maltreatment subscales involving varieties of neglect and abuse. It was expected that the items pertaining to physical and emotional neglect would be significantly related to the abandonment subscale of the AESS, while the emotional, sexual, and physical abuse items would be significantly related to the annihilation subscale of the AESS. In addition, three items are included in the CTQ to detect socially desirable responding (a minimising/denial subscale).

*The Experiences in Close Relationships-Revised (ECR-R) Questionnaire.* This measure is an adult attachment inventory with 36 items comprising the attachment-related anxiety and avoidance scales (Fraley, Waller & Brennan, 2000). Participants are asked to respond to the items on 7-point Likert scales ranging from 1 (strongly disagree) to 7 (strongly agree). Research has consistently revealed two major attachment dimensions, comfort with closeness (secure versus avoidant attachment) and anxiety over relationships (low versus high) (Bartholomew, 1990; Mikulincer & Shaver, 2007). Comfort with closeness relates to individuals’ schemas about the extent to which relationships are rewarding or painful, and to be sought or avoided. Anxiety over relationships relates to individuals’ fears of being rejected in sought-after relationships, and ranges from low to high (Feeney & Noller, 1996). In the current study it was expected that the abandonment subscale of the AESS would be positively associated with anxious attachment and that the annihilated subscale would be negatively associated with comfort with closeness.

**Results**

First, a factor analysis was conducted on the student responses to the 71-item emotional signature questionnaire to examine the extent to which the two dimensions, abandonment and annihilation, were separate constructs (Gorsuch, 1997). Two factors, which were labelled ‘Abandon’, and ‘Annihilate’, with a moderately positive correlation ($r = .45$) were obtained from items with loadings over .40. The moderate correlation between the two scales was considered to be acceptable, given the
inevitable degree of overlap in the experiences being measured. The items with the highest loadings on the Abandon factor focused on emotional experience and were related to anxiety and feeling childish. Examples were, ‘I worry about what I’ve done wrong’, ‘I have a need for approval’, ‘I can feel childish in difficult situations’, and ‘I can feel not good enough’. The items with the highest loadings on the Annihilate factor related to the actions of others. Examples were, ‘I was verbally abused’, ‘I was emotionally abused’, and ‘I was rejected in childhood’. Items relating to self-doubt, such as, ‘wondering what was wrong with me’ or ‘feeling inadequate’ loaded in the bottom half of the Annihilate factor.

With respect to the Childhood Trauma scale, the subscale measuring emotional abuse was positively associated with the Abandon factor ($r = .43$) whereas all the subscales were strongly and positively associated with the Annihilate factor: sexual abuse, $r = .50$; physical neglect, $r = .52$; emotional neglect, $r = .59$; physical abuse, $r = .62$; and emotional abuse, $r = .77$. There was also a significant negative association between the Annihilate factor and items measuring denial (social desirability) on the CTQ ($r = -.57$) indicating that students who more strongly endorsed annihilated items were less likely to deny their experiences or respond in a socially desirable way. With respect to the attachment results, anxious attachment was positively correlated with both the Abandon ($r = .64$) and Annihilate ($r = .32$) factors, suggesting that anxious attachment was not a good discriminator between the two constructs. However, comfort with closeness was a discriminating variable. Specifically, whereas comfort with closeness was not significantly associated with the Abandon factor, it was significantly and negatively associated with the Annihilate factor ($r = -.31$). In other words, high annihilation was associated with avoidant attachment (low comfort with closeness).

In summary, the results of this first study demonstrated that the two dimensions, abandonment and annihilation, were separate, though moderately related, constructs. Interestingly, only the emotional abuse subscale of the Childhood Trauma Questionnaire was positively associated with the Abandon factor, while every subscale was positively associated with the Annihilate factor, suggesting that a generally abusive and traumatic childhood is the precursor to the annihilated client profile. Further, the negative association between denial and the Annihilate factor suggests that more annihilated individuals are also more willing to reveal the traumas they have experienced. With respect to attachment, both the Abandon and Annihilate factors were positively associated with anxious attachment, and as expected, there was a negative association between the annihilate factor and comfort with closeness. However, there was no association between the Abandon factor and comfort with closeness, suggesting that whereas annihilated individuals experience generally insecure attachment (low comfort with closeness and high anxiety), abandoned individuals experience relationship anxiety but do desire closeness.

One important limitation of this study was its use of a young, non-clinical, undergraduate student sample with limited life experience. Given that the purpose of developing the Annandale Emotional Signature scale was to provide support to
practitioners in the context of developing the therapeutic relationship, it was considered important to test it within a clinical context. This was the aim of Studies 2 and 3.

Study 2

The aim of Study 2 was to discover whether the dimensions of abandonment and annihilation could be significantly differentiated using the same battery of questionnaires but with participants who had knowledge and experience of the constructs.

Method

Participants and procedures
Counselling and therapy practitioners who had attended the Institute for Emotionally Focused Therapy between 1988-2009 for professional development and/or as postgraduate candidates were invited by email to participate in the study. During their training these practitioners had explored their childhoods using the themes of abandonment and annihilation, and were taught how to use the ideas about abandoned and annihilated signatures in clinical practice. The Institute had current contact details for 139 (45%) of the possible 307 practitioners. An invitation was sent to the group and seventy-six practitioners (55%), 66 women (87%) and 10 men (13%) with a mean age of 48.6 years, agreed to participate. They were assured of confidentiality and anonymity, and completed the questionnaires online.

Measures. As for Study 1.

Results

The results closely replicated the results of Study 1. The Abandon and Annihilate factors were again positively correlated \( (r = .41) \) though the association was not so strong as for the students in Study 1. With respect to the CTQ, the Abandon factor was moderately positively associated with emotional neglect \( (r = .33) \) and emotional abuse \( (r = .33) \). Except for physical neglect the Annihilate factor was strongly correlated with the remaining scales: sexual abuse, \( r = .44; \) emotional neglect, \( r = .64; \) physical abuse, \( r = .67; \) and emotional abuse, \( r = .76. \) The annihilate factor was again strongly negatively associated with denial \( (r = -.64). \)

With respect to attachment, there was a clear association between the Abandon factor and anxious attachment \( (r = .55), \) but no association with comfort with closeness. As with Study 1, there was a significant negative association between the Annihilate factor and comfort with closeness \( (r = -.45); \) however, there was no association between the Annihilate factor and anxious attachment.

These results again show that the two dimensions of abandonment and annihilation are separate (though related) constructs. The Abandon factor was positively associated with both emotional neglect and abuse, whereas in the first study...
the only association was with emotional abuse. The Annihilate factor was strongly associated with the denial items and all bar the physical neglect subset of the childhood trauma questionnaire. Relationships with the two attachment dimensions were much cleaner than in the previous study, reflecting perhaps the clinical experience of the practitioner sample. In particular, the Abandon factor shared features of anxious attachment but not comfort with closeness, whereas the Annihilate factor was associated with low comfort with closeness (avoidance) but not anxiety.

In the third and final study, the Annandale Emotional Signature Scale was further refined and administered to a clinical sample, and the results compared across the practitioner and student samples from Studies 1 and 2.

Study 3

Method

Participants and procedures

Clients who were in treatment with Emotionally Focused practitioners were invited to participate in the research. Fifty-nine practitioners, who were either graduates or current candidates in the postgraduate programs at the Institute for Emotionally Focused therapy, were contacted and twenty-four (41%) indicated their willingness to participate. Twenty-three were in private practice and one was in a hospital-based counselling service. Their clients were adults who had voluntarily sought treatment for individual and/or couple problems. The practitioner cohort estimated that 229 clients could be invited to participate in the research. Their practitioners selected clients as having enough bonding with the therapist and as being sufficiently emotionally stable that the invitation would not disturb their treatment. 169 clients were ultimately invited, and 149 (88%) agreed to participate. 118 clients went on to complete the battery of questionnaires, representing 79% of those who agreed to participate, and 70% of the invited pool. The group consisted of 95 (81%) women and 23 (19%) men with a mean age of 44.8 years, 43.7 for the women and 49.5 for the men.

The practitioners received an instructional kit plus the information packages for the clients who indicated a willingness to consider being part of the research. The instructional kit included the words to use in the invitation to participate, a sample client pack, a debriefing information sheet, and a summary log to record the clients’ response of yes/no/maybe to the research request. The client information packs included a covering letter of invitation to participate, an information sheet and consent form, a summary sheet outlining the steps in participation, and a debriefing sheet in case they felt distressed. It is speculated that the high number of client participants may have been due to their being motivated for altruistic reasons, as the stated aim of the research was to “find more effective ways of working, and to recommend these protocols to other counsellors and therapists” as well as for personal reasons, since they were offered their results from the questionnaires in the form of an individualised profile to be presented to them via their practitioner.
The clients were required to email their acceptance and understanding of the consent information. Once this was received they were emailed the online survey address to complete the online questionnaires. Three months after the closing date of the research, individual profiles were distributed to the practitioners.

**Measures**

*Revised Annandale Emotional Signature Scale.* In order to further refine the AESS and reduce the extent to which its subscales were correlated with one another, ratings of the EASS items from Study 2 were submitted to a factor analysis, with only those items loading above .30 included in the final scale. Fourteen items were selected for the Abandon factor and 14 items were selected for the Annihilate factor (see Table 1 for a copy of the final scale). Note that the two items that originally asked about experiences of maternal and paternal sexual abuse in childhood were combined into one item, “I was sexually abused in my childhood”. The items were randomly ordered for presentation.

*CTQ and ECR-R Scales:* As for Studies 1 and 2.

**Results**

Using the revised Annandale Emotional Signature Scale considerably reduced the correlation between the Abandon and Annihilate factors ($r = .24$), indicating a stronger discrimination between the two constructs. With respect to the CTQ, the Abandon factor had weak, positive relationships with the emotional neglect ($r = .27$) and physical neglect ($r = .18$) subscales, and no significant association with denial. The Annihilate factor had strong positive relationships with all subscales of the CTQ: sexual abuse $r = .53$; physical neglect, $r = .57$; physical abuse $r = .65$; emotional neglect $r = .69$; and emotional abuse, $r = .85$. As before, there was also a strong, negative association with denial ($r = -.68$). With respect to attachment, there was a weak but significant negative association between the Abandon factor and comfort with closeness ($r = -.29$) and a moderate, positive association with anxious attachment ($r = .43$). The Annihilate factor was also significantly negatively associated with comfort with closeness ($r = -.34$) and weakly but positively associated with anxious attachment ($r = .29$).

**Comparisons among the undergraduate, practitioner and client populations**

One-way analyses of variance (ANOVA) were conducted on the various measures to compare responses across the three sample groups (students, practitioners and clients). In order to compare the results of the AESS across the three studies, the results for Studies 1 and 2 were modified such that only the 28 items from the revised Annandale Emotional Signature Scale were included.

The results showed a significant overall difference in the Abandon factor scores between students, therapists and clients, $F(2, 329) = 3.09, p < .05$. Bonferroni post-hoc tests showed that clients ($M = 51.35, SD = 7.15$) had significantly higher abandonment scores than students ($M = 48.63, SD = 9.00$). There was also a
significant overall difference in annihilation scores between students, therapists and clients, $F(2, 329) = 54.68, p < .001$. Post-hoc analysis showed that students ($M = 23.20, SD = 9.72$) had significantly lower annihilation scores than both therapists ($M = 37.01, SD = 12.08$) and clients ($M = 35.59, SD = 12.08$).

With respect to the Childhood Trauma Questionnaire, a one-way ANOVA analysis showed a significant overall difference in childhood trauma scores between students, therapists and clients ($F(2, 329) = 52.77, p < .001$). Bonferroni post-hoc analysis showed that students ($M = 37.75, SD = 12.86$) had significantly lower childhood trauma scores compared to both therapists ($M = 53.80, SD = 11.69$) and clients ($M = 50.35, SD = 12.31$). Within subsets of the CTQ, further analysis showed significant differences in scores between students, therapists and clients for physical neglect, $F(2, 329) = 6.31, p < .01$, emotional neglect $F(2, 329) = 70.33, p < .001$, emotional abuse $F(2, 329) = 15.67, p < .001$, physical abuse $F(2, 329) = 43.52, p < .001$, and denial $F(2, 329) = 23.34, p < .001$.

Post-hoc testing showed that clients ($M = 8.11, SD = 3.49$) had significantly higher physical neglect scores than students ($M = 6.76, SD = 2.38$); both clients ($M = 14.05, SD = 4.07$) and therapists ($M = 15.32, SD = 3.82$) had higher emotional neglect scores than students ($M = 9.27, SD = 4.20$); and students ($M = 8.91, SD = 4.52$) had significantly lower emotional abuse scores than clients ($M = 12.07, SD = 4.87$) and therapists ($M = 11.49, SD = 4.95$). With respect to therapists and clients, therapists ($M = 11.49, SD = 3.13$) had significantly higher physical abuse scores than clients ($M = 7.69, SD = 3.96$). This result is consistent with having a lower comfort with closeness score than students. Both clients ($M = 8.43, SD = 5.52$) and therapists ($M = 8.05, SD = 5.52$) had higher sexual abuse scores than students ($M = 5.74, SD = 2.81$). Further, post-hoc testing showed that students ($M = 9.70, SD = 3.62$) had higher denial scores than both therapists ($M = 7.54, SD = 3.26$) and clients ($M = 6.88, SD = 3.27$).

Finally, with respect to adult attachment, the results of a one-way ANOVA identified a significant overall difference in comfort with closeness $F(2, 329) = 13.22, p < .001$ and anxiety over abandonment $F(2, 329) = 8.53, p < .001$ between students, therapists and clients. Post-hoc testing showed that for comfort with closeness, students ($M = 96.13, SD = 21.29$) had higher scores than therapists ($M = 88.75, SD = 9.61$) and clients ($M = 86.31, SD = 10.57$). Further, therapists ($M = 55.32, SD = 16.86$) had significantly lower attachment anxiety scores than students ($M = 63.50, SD = 19.22$) and clients ($M = 67.18, SD = 21.42$).

**Predicting Emotional Signatures**

Finally, two backwards elimination regression analyses were conducted in order to determine the strongest predictors of the abandoned and annihilated subscales of the AESS. According to the results of the regression analysis the most significant predictors of the annihilated signature were low denial ($\beta = -.21, t(324) = -5.93, p < .001$) and high levels of sexual abuse ($\beta = .19, t(324) = 6.29, p < .001$), physical abuse...
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The strongest predictors of the abandoned signature were high attachment anxiety ($\beta = .47, t(326) = 9.87, p < .001$) and physical neglect ($\beta = .13, t(326) = 2.34, p < .001$). The strongest predictors of the annihilated signature were high attachment anxiety ($\beta = .47, t(326) = 9.87, p < .001$) and physical abuse ($\beta = .46, t(324) = 11.35, p < .001$). The strongest predictors of the abandoned signature were high attachment anxiety ($\beta = .47, t(326) = 9.87, p < .001$) and physical neglect ($\beta = .13, t(326) = 2.34, p < .001$).

General Discussion

The overall aim of this study was to further explore and establish the construct validity of the abandoned and annihilated emotional signatures, with the possible goal of providing practitioners with a measurement tool (the Annandale Emotional Signature Scale) that could be used to assist in the fine-tuning of therapeutic engagement and organising of treatment pathways. Over the course of three studies with three different samples, two highly reliable factors emerged from the Annandale Emotional Signature scale. The Abandon factor comprises items describing feelings of inadequacy, self-critical thinking, and pleasing behaviours that indicate anxiety and worry about over-responsibility and rejection by others. The Annihilate factor comprises items describing adverse and traumatic events from the past, as opposed to currently anxious feelings and self-critical thoughts. Both factors were positively associated in mostly predictable ways with items from the Childhood Trauma Questionnaire. While it was speculated that the Abandon factor would be linked with emotional and physical neglect, it was found to be only weakly associated with these variables in Studies 2 and 3 (though physical neglect remained a predictor of abandonment in the final regression model, along with anxious attachment). As expected, the Annihilate factor was strongly associated with the emotional, physical and sexual abuse subscales of the CTQ. Further, there was a significant negative association between the Annihilate factor and denial, indicating that individuals with an annihilated profile are willing and able to disclose their experiences. As expected, comparisons among the three groups showed that clients and therapists had higher childhood trauma scores than the students, demonstrating why it is important to test clinically-oriented instruments on the population for which they have been designed.

Although attachment was related in various ways to aspects of the Abandoned and Annihilated signatures, it was not a reliable discriminator between the two. Overall, the results suggest that whereas there is significant overlap between the constructs of anxious attachment and the Abandoned signature, and some overlap between anxious attachment and the Annihilated signature, low comfort with closeness (avoidant attachment) is more strongly associated with the Annihilated profile. Even then, neither attachment dimensions remained significant as predictors of the annihilated profile in the final regression model, over and above the CTQ subscales. The abandoned signature, then, may be conceived as fundamentally concerned with anxiety over relationships and relationship closeness. Clients with an abandoned signature may have memories of emotional neglect and physical neglect that stimulates their anxiety and self-critical thinking. As a result they endeavour to work out how to please other people and to behave in ways that they think will
encourage relationships and secure attachment. This can be contrasted with clients with an annihilated signature who have experienced a history of difficult and traumatic events including emotional, physical and sexual abuse. They may be somewhat uncomfortable with closeness, and associate attachment with punishment rather than reward. These clients tend to be matter-of-fact about their traumatic histories, and are clear that the responsibility lies with the other, both as a result of what they experienced and as a possible protection against self-critical thinking.

The Annandale Emotional Signature Scale provides therapists with a short questionnaire that helps them to distinguish emotional signatures, and provides them with potential pathways for adaptive responding and intervening. A key distinction between the signatures concerns the extent to which clients endorse the trauma-related items over and above the abandonment and neglect-related items. Therapists can use this questionnaire either by answering the questions themselves from the information that they have gathered in clinical sessions, or by having their clients complete the questionnaire. For a comprehensive assessment, we would recommend that therapists administer the AESS with the Childhood Trauma questionnaire and the Experiences in Close Relationships-Revised questionnaire. Further details on scoring and profiling are available from the first author.

**Conclusions**

In conclusion, the results of the studies reported in this paper indicate that, in line with our initial clinical observations, two different kinds of profiles may be identified, each with its own characteristic signature of feelings, thoughts and behaviours, and childhood memories. These profiles were identified across all studies indicating that everyone – students, clients and therapists - has an emotional signature.

Of course, each of the studies has limitations; all were derived from self-report data and are subject to the kinds of reporting biases associated with retrospective recall. Further, one group, the practitioners, was familiar with the concepts underpinning the measure (though their results did not suggest that this familiarity influenced their responses). Indeed, there was strong consistency between the results of the studies using three different samples, and the inclusion of a social desirability measure (denial) indicated that the more traumatized individuals were unlikely to idealize their past and minimize their distress.

Clinicians who are aware of these different kinds of emotional signatures may be better able to manage the therapeutic relationship by relating appropriately and effectively with each group as well as developing a treatment program that is suitable for each profile. Whereas clients with the abandoned signatures need overt empathic responses from a therapist, and a focus on emotional experience, annihilated clients require a more matter-of-fact response that prioritises what actually happened to them over emotional experiences in the first instance. It is our hope that understanding the underlying dimensions of the abandoned and annihilated signature will provide a
quick and reliable means of ascertaining a client’s emotional signature at the beginning of therapy, and enhance the development of the therapeutic relationship.

References


Table 1: Annandale Emotional Signature Scale (AESS): Factor loadings of Abandonment and Annihilation Subscale items across three samples

<table>
<thead>
<tr>
<th>ESS Item</th>
<th>Question</th>
<th>Abandonment</th>
<th>Annihilation</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES1</td>
<td>I can feel not good enough</td>
<td>.730</td>
<td>.320</td>
</tr>
<tr>
<td>ES2</td>
<td>I have an inner voice that berates me about myself</td>
<td>.723</td>
<td>.301</td>
</tr>
<tr>
<td>ES3</td>
<td>I worry about what I have done wrong</td>
<td>.720</td>
<td>.141</td>
</tr>
<tr>
<td>ES4</td>
<td>I am self critical</td>
<td>.671</td>
<td>.036</td>
</tr>
<tr>
<td>ES5</td>
<td>I feel inadequate in situations</td>
<td>.658</td>
<td>.175</td>
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<tr>
<td>ES6</td>
<td>I feel I am responsible when things go wrong</td>
<td>.627</td>
<td>.101</td>
</tr>
<tr>
<td>ES7</td>
<td>I have a need for approval</td>
<td>.607</td>
<td>.092</td>
</tr>
<tr>
<td>ES8</td>
<td>Other people tell me what to do</td>
<td>.518</td>
<td>-.030</td>
</tr>
<tr>
<td>ES9</td>
<td>I try to be good in situations</td>
<td>.482</td>
<td>-.009</td>
</tr>
<tr>
<td>ES10</td>
<td>I do not need reassurance</td>
<td>.365</td>
<td>.028</td>
</tr>
<tr>
<td>ES11</td>
<td>I like people being happy with me</td>
<td>.345</td>
<td>-.111</td>
</tr>
<tr>
<td>ES12</td>
<td>My stomach churns in difficult situations</td>
<td>.341</td>
<td>.221</td>
</tr>
<tr>
<td>ES13</td>
<td>I do not feel responsible for situations</td>
<td>-.302</td>
<td>-.075</td>
</tr>
<tr>
<td>ES14</td>
<td>I do not feel overwhelmed in situations</td>
<td>-.281</td>
<td>-.156</td>
</tr>
<tr>
<td>ES15</td>
<td>I was ignored in my childhood</td>
<td>.131</td>
<td>840</td>
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<tr>
<td>ES16</td>
<td>I was emotionally abused</td>
<td>.093</td>
<td>.829</td>
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<tr>
<td>ES17</td>
<td>I was verbally abused in my childhood</td>
<td>-.099</td>
<td>-.785</td>
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<tr>
<td>ES18</td>
<td>I was rejected in my childhood</td>
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<tr>
<td>ES19</td>
<td>I was unacknowledged in my childhood</td>
<td>.049</td>
<td>.776</td>
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<td>ES20</td>
<td>I suffered trauma(s) in childhood</td>
<td>.106</td>
<td>.770</td>
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<tr>
<td>ES21</td>
<td>My mother emotionally abused me</td>
<td>.163</td>
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<td>ES22</td>
<td>I was blamed when things went wrong</td>
<td>.123</td>
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<tr>
<td>ES23</td>
<td>I was physically abused</td>
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<td>.677</td>
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<tr>
<td>ES24</td>
<td>My father emotionally abused me</td>
<td>.070</td>
<td>.660</td>
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<tr>
<td>ES25</td>
<td>My mother was critical of me</td>
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<td>.625</td>
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<tr>
<td>ES26</td>
<td>I was sexually abused in my childhood</td>
<td>.066</td>
<td>.533</td>
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<tr>
<td>ES27</td>
<td>My father was critical of me</td>
<td>.045</td>
<td>.458</td>
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<tr>
<td>ES28</td>
<td>I knew what was expected of me in childhood</td>
<td>-.137</td>
<td>.312</td>
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