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MAJOR RESEARCH PROJECT

Title	Parental self-compassion, attributions of child behaviour and sensitive responding.
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Abstract

Background/aims. Self-compassion is an approach of kindness towards the self; encompassing self-kindness, common humanity and mindfulness (Neff, 2003b). It is thought to enable awareness that suffering is common within human experience, encouraging compassion for others. Parental sensitivity and attributions are considered to influence parent-child relationships and have been negatively associated with depression. This study aimed to explore associations between parent self-compassion, attributions of child behaviour and sensitive responding in recurrently depressed parents.

Methods/participants. This was a correlational design using baseline data from a feasibility randomised controlled trial of Mindfulness-Based Cognitive Therapy. The 38 participants had experienced recurrent major depressive episodes, were in remission and had at least one child between two and six years old. Self-compassion was measured by the Self-Compassion Scale (SCS; Neff, 2003b). Parent attributions of child behaviour were assessed by semi-structured interviews and rated using the Attributions Measure (S. Scott & M. Dadds, personal communication, 2009). Sensitivity was assessed using a parent-child observation task and rated by the Coding of Attachment-Related Parenting (Matias, Scott & O'Connor, 2006).

Results. Findings show significant correlations between higher SCS total scores and external attributions of positive or negative valence. The SCS subscale self-judgement was significantly negatively correlated with sensitivity.

Conclusion. In conclusion, higher self-compassion was positively associated with external attributions of child behaviour in either situation. Parents with higher levels of self-compassion also showed positive associations with sensitivity. These associations support current theories suggesting self-compassion could be positively associated with parenting. Areas for future research and clinical implications are considered.

Keywords: Self-compassion, attributions, sensitivity, parental depression, parent-child interaction.

Parental Self-Compassion, Attributions of Child Behaviour and Sensitive Responding

Self-Compassion

Self-compassion has consistently been shown to support a healthy attitude and relationship with the self (Neff, 2003a). It allows for the cultivation of a caring and loving approach towards the self (Birnie, Speca & Carlson, 2010). Self-compassion is also integral to compassion for others; Goldstein has described it as the “heartfelt experience of sharing the pain of another and the wish for alleviation of their suffering” (cited in Hollis-Walker & Colosimo, 2011, p. 223). Neff (2003a) explained that self-compassion enhances compassion for others through understanding pain, suffering and failure are a common human experience. Self-compassion encourages an open awareness to others' failures and misguided actions whilst responding with nonjudgemental understanding of “shared human fallibility” (Neff, 2003a, p. 87). It has been considered that a nonjudgemental stance towards oneself permits the same attitude towards others, recognising that people are interconnected (Neff, 2003a).

Self-compassion is considered to be a relatively new concept in psychology, although it is becoming an area of significant interest (Raes, 2011). It has been defined as encompassing three main components; self-kindness, common humanity and mindfulness (Neff, 2003b). Self-kindness is considered to be kindness towards oneself instead of harsh criticism and judgement. This is particularly true in instances of perceived inadequacy or suffering. Common humanity is the understanding of shared human experience, the recognition that suffering is not unique to the self but is inherently related to the suffering of others. Mindfulness is an approach of balance during painful experiences; instead of over-identifying with them, one is able to hold them in awareness (Neff, 2003b). Mindfulness is linked to nonjudgemental acceptance of mental states, thoughts and feelings. It provides a state of awareness which is not influenced by personal opinion or views, instead fostering a flexible thought process (Neff, 2003a).

Neff, Kirkpatrick and Rude (2007a) explained that self-compassion is related to adaptive psychological functioning. Self-compassion has been related to increased levels of life satisfaction, social connectedness and emotional intelligence (Neff, 2003b, Neff et al., 2007a). Neff, Rude and Kirkpatrick (2007b) also found that self-compassion had links to wisdom, optimism and positive affect.

A meta-analysis concluded that associations of large effect sizes were shown between high levels of self-compassion and less mental health symptoms such as depression (MacBeth & Gumley, 2012). Additionally, self-compassion has been found to be a predictor of severity of depression, accounting for more unique variance compared to a single factor of mindfulness (Woodruff et al. 2013; Van Dam, Sheppard, Forsyth & Earleywine, 2011). Kuyken et al. (2010) also found reduced depressive symptoms at a 15 month follow up were mediated by change in self-compassion following the Mindfulness-Based Cognitive Therapy intervention (MBCT; Segal, Williams & Teasdale, 2002).

Self-compassion is thought to influence parenting behaviours. Neff (2003a) explained that a parent with higher levels of self-compassion will react with a nonjudgemental state of mind whilst showing concern and kindness for their child's wellbeing. Neff (2003a) suggested that children who receive more compassion will develop to have higher levels of self-compassion as adults.

Bögels, Lehtonen and Restifo (2010) suggested that parenting may be improved by self-compassion; parents with mental disorders who have greater difficulty accepting self-nourishing attention may particularly benefit. They suggested that developing self-compassion may cause a parent to be more "accepting and compassionate towards their children, especially when their children express negative emotions" (p. 112). Duncan, Coatsworth and Greenberg (2009) suggested that self-compassion in parenting facilitates a non self-blame approach and encourages less self-judgement of parenting activities.

Parental Sensitivity

The parent-child interaction forms the “basis for the child’s psychological growth and development”, it is thought to have long-term effects on the child’s physical, psychological and cognitive development (Shin, Park, Ryu & Seomun, 2008, p.304). Maternal sensitivity is a fundamental indication of the quality of the parent-child interaction and one of the most important aspects of a secure attachment relationship (Ainsworth, Blehar, Waters & Wall; cited in Shin et al., 2008).

Sensitivity is a dyadic process between mother and child but it is the responsibility of the parent to create the “mutual attunement” (Shin et al., 2008, p.307). Sensitivity involves the awareness and accurate interpretation of a child's signals whilst responding appropriately. Essentially the parent is able to make accurate inferences about their child's state from their behavioural cues (Fonagy, Steele, Steele, Higgitt & Target, 1994). A sensitive parental response would be adaptive, contingent and reciprocal (Shin et al, 2008). Thompson (1997) reported that a change in sensitivity might be expected over the developmental period and the “requirements of sensitive responding impose changing demands on the parent” depending on the age of the child (p. 596). Factors which are thought to facilitate sensitivity include social support, parent-child attachment and high self-esteem. Conversely, parental depression and anxiety are thought to increase the risk of insensitivity (Shin et al., 2008).

Parental depression has been shown to disrupt the parent-child relationship (Knoche, Givens & Sheridan, 2007). The interactions of parents with depression and their children are often less sensitive; behaviours include intrusiveness, disengagement and hostility. Driscoll and Easterbrooks (2007) found parents with depression showed unpredictable structuring and disengagement during parent-child interactions. Foster, Garber and Durlak (2008a) found parents with depression showed less positive interaction behaviours with their children and more negative interactions such a controlling behaviours and negative affect. Parental

sensitivity has also been found to mediate the relationship between depression and insecure attachment. Specifically, children of parents low in sensitivity were more likely to have insecure attachments (NICHD Early Child Care Research Network, 1997).

Depression research raises particular mental health concerns for parents and children. Parental depressive symptoms have been associated with child internalising and externalising disorders (Langrock, Compas, Keller, Merchant & Copeland, 2010; Tompson et al., 2010; Frye & Garber, 2005). The association with child developmental outcomes and parenting has been shown to vary with the duration and number of episodes of depression (Foster et al., 2008b). Evidence suggests depression is common during child rearing years, has a high rate of reoccurrence and the symptom severity increases with each episode (Cox, Murray & Chapman, 1993; Maj, Velto, Pirozzi, Lobracc & Magliano, 1992; Kessing, 2008).

Attributions of Child Behaviour

Parental attributions of child behaviour are thought to influence the parent-child relationship and child developmental outcomes (Chen, Johnston, Sheeber & Leve, 2009). Dix, Ruble, Grusec and Nixon (1986) explained that parents must "determine why particular child behaviours are occurring; infer the needs, motives and limitations in their children that may underlie those behaviours; and select parenting responses" (p. 879). It is thought that parental attributions enable inferences about child behaviour on a daily basis, particularly immediate assessment of causal factors concerning behaviour.

Abramson, Seligman, and Teasdale (1978) suggested that attributions can vary across three dimensions; internal/external, global/specific and stable/unstable (cited in Dadds, Mullins, McAllister & Atkinson, 2003). Dix et al. (1986) explained that if a parent perceives a situation is caused by internal factors, they will infer child intentionality and that personality dispositions caused the behaviour. Conversely, if the parent views that the behaviour was controlled by external factors then the behaviour is perceived as unintended

and is attributed to situational constraints. Dix et al. (1986) reported that child age is related to changes in causal attributions; parents assumed personality dispositions were the cause of the behaviour with increasing child development.

Dadds et al. (2003) explained that "research has identified two important determinants of parental attributions; valence and familiarity of the child behaviour" (p. 24). Valence is the parental assessment of the behaviour as either positive or negative. Dadds et al. (2003) explained that parents are more likely to engage in causal attributions when scenarios are ambiguous. Specifically, "in the absence of situational information, parents are more likely to interpret and respond to child behaviour based on pre-existing cognitions about the child" (p. 25). It is thought habitual patterns of interpreting and responding to behaviour occur following an established attribution.

Gretarsson and Gelfand (1988) found that parents attributing negative behaviours externally to the child tend to attribute positive behaviours internally (cited in Dadds, et al. 2003). Dadds et al. (2003) stated the reverse has been found in clinical populations; a tendency to attribute positive behaviours to external causes and negative behaviour to internal (in a sample of mothers at risk of child abusing). In this sample appropriate behaviour or prosocial acts were perceived as externally caused. They concluded this pattern related to negative parent-child relationships, particularly the tendency to attribute negative situations internally.

Research within attributions concerning parents with depression has focussed on child misbehaviour (Bolton et al., 2003; Snarr, Slep & Grande, 2009). White and Barrowclough (1998) reported that depressed mothers showed more spontaneous stable and internal attributions about their child's difficult behaviour. They suggested attributions are increasingly formed when situations are perceived as negative.

Bolton et al. (2003) found an increase in parental depressive symptoms was related to attributing responsibility internally to the child, in addition to self-blaming during descriptions of negative behaviour. They reported warmth was negatively related to attributions of child controllability in situations of misbehaviour, whereas hostility was positively related to personal attributions. Leung and Slep (2006) also found an over-reactive response in parents with depression was related to internal causality attributions of child misbehaviour. They reported that parent-centred causal attributions mediated the relationship between depression and laxness in the parenting response. Snarr et al. (2009) reported parental causal and child responsibility attributions predicted ineffective discipline, parental emotional difficulties and low parenting satisfaction.

In summary, self-compassion is a relatively new concept within parenting literature; it cultivates a loving kindness attitude to the self and others. It is thought to positively influence parenting practices and the parent-child relationship. A sensitive parental response is considered to be adaptive, contingent and reciprocal to the child. Parental sensitivity is thought to be enabled through an awareness and accurate interpretation of their child's behaviour. Attributions influence the interpretations of child behaviour and the parenting response. Both parental sensitivity and attributions have been found to be negatively associated with parental depression. The associations between self-compassion and parenting, specifically parental sensitivity and attributions, require further research.

Research Aims and Hypotheses

The primary research aims in this study were to assess how self-compassion is associated with parental attributions of their child's behaviour and parental sensitive responding in a group of parents with a history of recurrent depression. The initial research question aimed to explore whether there was a relationship between parental self-compassion and attributions for both positive and negative situations. The second research question aimed

to assess whether there was an association between self-compassion and parental sensitive responding.

It was hypothesised that parents high in self-compassion would attribute causality externally when negative valence is inferred. It was thought the reverse association would occur in conditions of positive valence; the behaviour would be predominately viewed as internally caused. This was in line with past research showing changes in valence were associated differently with internal and external causality. It was also hypothesised that parents with higher self-compassion scores would show an increased level of parental sensitive responding towards their child. This was based on the theoretical literature concerning the nature of self-compassion and its relation to parenting.

Method

The study was a correlational design using cross-sectional data. The aims were to explore associations between parental self-compassion, attributions of child behaviour and sensitivity. The aims were answered using baseline data collected in a feasibility randomised controlled trial (RCT) of MBCT for parents (MBCT-P) with recurrent depression based at the University of Exeter. This feasibility RCT was intended to provide the base for a definitive phase III trial. It was approved by the National Research Ethics Service and the University of Exeter School of Psychology Ethics Committee (Appendices A and B).

Participants

The participants were 38 parents (36 mothers and two fathers) who had experienced three or more previous major depressive episodes and had at least one child aged between two and six years old¹. Parents included in the study were in full or partial remission; this was assessed during the intake interview using the Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders - IV (SCID for DSM - IV; First, Spitzer, Gibbon & Williams, 1995; American Psychiatric Association, 2000). Depression severity at baseline rated by the Beck Depression Inventory II (BDI-II; Beck, Steer & Brown, 1996) showed scores ranging between 0 – 32 ($M = 11$, $SD = 9.17$). Exclusion criteria included current substance dependence, organic brain damage, psychosis, bipolar disorder, personality disorder, antisocial behaviour, persistent self harm, currently receiving another psychological therapy or having a child at vulnerable risk (see Appendix C). Recruitment

¹ As this was a new area of research the associations between self-compassion in relation to parent attributions or parent sensitivity were unknown, therefore it was not possible to complete a valid power calculation. Information from this exploratory trial will inform calculations for a sample size in phase III of the trial.

occurred in a staggered strategy in conjunction with the two scheduled MBCT-P groups, occurring within a two year period. The trial was advertised through General Practitioners, Child and Adolescent Mental Health Services, health visitors in educational settings, the local Mental Access and Well-being Service and local schools.

Study Design and Procedures

The initial phase of the larger RCT enabled piloting of the measures, including acceptability of assessments with parents and children. Participants completed baseline assessments after consenting to take part in the study. The intake interview included the SCID for DSM - IV which assessed for depression (including identification of remission status and number of episodes) and co-morbidity.

Participants consented at several stages prior to completing the baseline assessment. Individuals participated in a screening interview for which they consented (see Appendix D). If the individual was eligible they were invited to an intake assessment; if they met the trial criteria they completed the main study protocol consent form (see Appendix E). As all children were under the age of six, parental consent was obtained for their engagement (Abramovitch, Freedman, Thoden & Nikolich, 1991).

Measures

The measures consisted of two well established, psychometrically valid and reliable self reports to assess parental self-compassion and symptoms of depression. A semi-structured interview was audio recorded to assess attributions of their child's behaviour. Sensitivity was assessed by a semi-structured parent-child interaction task which was video recorded. Interviews and observations increased reliability and consistency, opposed to overreliance on self reports which can be subject to systematic biases (Aspland & Gardner, 2003). The utilised measures contained multiple tasks or scenarios. This facilitated reliable

and diverse understanding of parenting behaviours of interest to the study, including attributions of child behaviour and parental sensitivity (Aspland & Gardner, 2003).

Self-Compassion Scale. Self-compassion was measured by the Self-Compassion Scale (SCS; Neff, 2003b). The SCS is a 26-item questionnaire, rated on a one (almost never) to five (almost always) Likert scale (Appendix F). Neff (2003b) suggested three theoretical facets to self-compassion, each containing opposing subscales: self-kindness and self-judgement, common humanity and isolation and mindfulness and over-identification. The SCS produced six subscale scores which could be meaningfully interpreted. Each facet's opposing subscale required reversing to calculate an overall self-compassion score. Each subscale was summed and a total self-compassion score calculated (Neff, 2003b). Higher scores on self-kindness, common humanity and mindfulness generate higher total SCS scores, whereas the reverse is true for the opposing subscales (see Table 1 for sample items).

Neff (2003b) explained that confirmatory factor analysis (CFA) indicated there were six separate but correlated factors whilst the overall factor of self-compassion explained inter-correlations between them. They concluded that self-compassion arose from the combination of these subscales.

Neff et al. (2007a) explained that the SCS had good test-retest reliability ($r = .93$) and showed convergent and discriminant validity. They reported SCS scores showed strong positive correlations with psychological health aspects such as life-satisfaction, social connectedness and emotional intelligence, whilst showing negative correlations with depression, anxiety and thought suppression. Neff (2003b) explained that the SCS measured unique psychological constructs and was distinct from self-esteem.

Beck Depression Inventory - II. Depressive symptom severity was measured by the BDI-II, a 21 item questionnaire (each scored between 0 - 3) assessing severity of depression and structured around cognitive and affective symptoms. The BDI-II score indicates

depression severity: scores between zero and nine indicated minimal depression, 10 - 18 mild, 19 - 29 moderate and 30 - 63 severe. It is based on the major depressive criteria from the DSM-IV and has shown excellent test-retest reliability, high internal consistency and convergent validity (Arnau, Meagher, Norris & Bramson, 2001).

Coding of Attachment-Related Parenting. Parental sensitivity was assessed using the Coding of Attachment-Related Parenting (CARP; Matias, Scott & O'Connor, 2006). It is based on attachment theory and assesses the quality of parent-child interaction styles. The CARP codes six dimensions of parent-child interactions, the scale of interest to the study was parental sensitive responding. This is designed to assess the extent "the parent shows awareness of the child's needs and sensitivity to his or her signals, promotes the child's autonomy, adopts the child's psychological point of view and physically or verbally expresses warmth toward the child" (O'Connor, Matias, Futh, Tantam & Scott, 2012, p. 5). It is scored on a one (unresponsive/insensitive parent) to seven point (extremely responsive/sensitive parent) Likert scale (Appendix G). O'Connor et al. (2012) explained that the three coded tasks provide a sensitive responding score, these are summed to produce an overall score (higher scores indicate greater sensitive responding). O'Connor et al. (2012) explained the sensitive responding scale showed validity in one year stability of intra-individual differences within a control group ($r = .66$) and had significant correlations with measures assessing security of child attachment ($r = .32, p < .05$).

The CARP is comprised of three interaction tasks which vary in structure and demand. O'Connor et al. (2012) reported that as the tasks are diverse they elicit different parental behaviours, specifically the less structured tasks are likely to evidence changes in parental sensitivity. The three subtasks and the overall total were included in the analysis. The tasks were completed within the home, facilitating a closer representation of normal parent-child interaction. The three tasks were five minutes long and video recorded. The first

task was a free play session with no specific instructions. The second was a structured Lego task where the parent provided verbal assistance. The final task was a tidy up session (Appendix H).

Attribution Measure. Parental attributions concerning child behaviour were assessed by the Attributions Measure (S. Scott & M. Dadds, personal communication, 2009). This was a relatively new scale being used in RCTs at the National Academy of Parenting Research (NAPR) at the time of communication. This is a semi-structured, audio recorded interview with the parent including six ambiguous scenarios of child behaviour (Appendix I). Past research has shown attributions tend to be most active in ambiguous situations (Dadds et al., 2003). The scenarios are focused on situations designed to be positive, neutral and negative (see Table 1). The parent was instructed to imagine their child throughout each scenario, prompting the parent to imagine their parent-child relationship. This was followed by several questions designed to elicit information to code specific domains (Appendix I).

The Attribution Measure coding system was developed by NAPR. It provides a representation of discourse that is theoretically linked to causal attributions. The coding system provides scores for four domains; specifically of interest to this study was valence and attribution of causality. The valence is the parent's interpretation of the child's behaviour, i.e. the judgment of that behaviour. This was coded on a five point Likert scale, ranging from plus two (clearly positive) to minus two (clearly negative). Zero is a code of neutral judgement (Appendix J). The valence code was used to compute an overall score containing attributions of either positive or negative valency.

The attribution code represents the parent's ascribed cause of the child's behaviour, coded on a five point Likert scale. The highest code (plus two) represents a clearly internal attribution, the lowest code (minus two) represents a clearly external attribution, whereas zero indicates a mixed attribution. Internal attributions ascribe the behaviour to personal

Table 1

Items from the Self-Compassion, Parental Attributions and Parental Sensitivity Measures

Measure	Example item
Self-Compassion Scale	
Self-Kindness	I try to be understanding and patient towards those aspects of my personality I don't like.
Self-Judgment	When I see aspects of myself that I don't like, I get down on myself.
Common Humanity	When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.
Isolation	When I fail at something that's important to me I tend to feel alone in my failure.
Mindfulness	When something upsets me I try to keep my emotions in balance.
Over-Identification	When something upsets me I get carried away with my feelings.
Attribution Measure	
Positive scenario	Your child is playing with a computer game and asks his/her friend if they would like a turn.
Neutral scenario	You come into the room and find your child sitting behind the sofa.
Negative scenario	You are helping your child clean up and your child says "I hate you."
CARP Sensitivity Scale	
Unresponsive/Insensitive Parent.	Clear pervasiveness (i.e. presence for most of the time) of absence of responsive behaviours displayed by the parent as previously, or one modest example of responsiveness against a background of pervasive and intense non-responsiveness (specific examples were included).
Extremely Responsive/Sensitive Parent.	This parent must either display all the above criteria (described in the manual) or those that are displayed must be extreme manifestations of responsive behaviour. The various types of responsive behaviours are pervasive and completely unambiguous to the observer.

Note. Adapted from "The Development and Validation of a Scale to Measure Self-Compassion" by K. D. Neff, 2003, *Self and Identity*, 2, p. 231 - 232. Copyright 2003 by Taylor & Francis Inc and "Coding of Attachment-Related Parenting (CARP)," by C. Matias, S. Scott & T. G. O'Connor, 2006, unpublished manuscript, Institute of Psychiatry, King's College London, UK and "The Attributions Measure" by S. Scott & M. Dadds, 2009, personal communication.

dispositions, traits or abilities (global and stable over time) whereas external attributions ascribe the cause of the behaviour to situational demands and environmental constraints (situation specific and transient).

Inter-Rater Reliability

The coders achieved inter-rater reliability for the CARP and the Attributions Measure prior to coding the trial data. CARP coders achieved ICC = .90 and .82 respectively on the sensitivity scale and the Attribution Measure coder achieved ICC = .9 and .68 for the valence and attribution domain respectively. However, no further inter-rater reliability was achieved for the trial data. The validity of these measures is a pre-requisite for interpretation and application of research findings. Validity of coding schemes ensure the instruments are "relevant and representative of the targeted construct" (Haynes, Richard & Kubany, 1995, p. 239). Reliability ensures the coding scheme is sustainable and consistent in coding. Reliability indicates that categories within a coding scheme are independent of the coder's judgements and biases. It shows a shared understanding of data analysis and category meaning (Craggs & Wood, 2005).

The CARP's sensitivity scale was coded by two individuals following achievement of NAPR's reliability standard. They were trained by a PhD student responsible for the larger RCT (supervised by Willem Kuyken) who received training by NAPR. Weekly meetings were held between coders to maintain reliability. The coders were blind to participant scores in the remaining measures. O'Connor et al. (2012) reported on the sensitive responding scale's validity. They explained it showed stability of intraindividual differences across a year and significant correlations with security of the child's attachment narrative from a story stem procedure.

The Attribution Measure was coded by the first author, who received training from NAPR. The coder was not involved in baseline data collection and was blind to participant scores in the remaining measures. This measure has recently been developed by NAPR, therefore does not have published data on validity. However, the measure was developed by authors of published literature concerning parental attributions in clinical populations;

specifically negative and positive attributions in coercive parenting, parental attributions in therapeutic change and child health (Scott & Dadds, 2009; Dadds, Stein & Silver, 1995; Dadds et al., 2003).

All coders were assessed for inter-rater reliability prior to coding the trial data. Weir (2005) explained that reliability can be assessed by methods such as the Pearson's r and interclass correlations (ICC). They explained that ICC is a preferred level of measurement, it varies between 0 (no reliability) to 1.0 (perfect reliability). Sampat et al. (2006) stated that although there is no consensus, a valid interpretation of the ICC scale is that .40 indicates poor reliability, .40 - .75 fair to good and above .75 is excellent. The ICC was calculated using a two-way mixed model with a stringent standard of absolute agreement (Shrout & Fleiss, 1979). CARP coders achieved ICC = .90 and .82 respectively on the sensitivity scale. The first author achieved ICC = .9 for valence in the Attribution Measure and ICC = .68 for the attribution domain.

Attribution Measure Coding System Manual

Weston et al. (2001) explained that coding discourse reliably forms the basis of reporting valid results from research studies. The first author produced a manual to inform reliable coding of interview data. It was developed to ensure consistency in coding by a single coder over time (Bayerl, Lungen, Gut & Paul, 2003). The manual was then used to inform training on the measure for the wider RCT and ensure consistency between coders. Appendix K provides an abridged version of the manual.

The manual provides a structure of reliable coding to limit biases and interpretation which may have developed through analysis of interview data (Weston et al., 2001). It was developed prior to coding trial data and following the first author's achievement of NAPR's assessment of inter-rater reliability. It was developed through applying the theoretical basis of causal attributions (Dadds et al., 2003), knowledge through training and coding resources

from NAPR. The manual had minor developments during coding of interview data. An example of this was the variation of attribution codes relating to mood. Mood would be conceptualised as an internal temporary state (plus one), for example a "silly mood". However, the code would be altered if the parent emphasised that the behaviour was caused by a mood that is a stable, internal, global trait (plus two), for example "he's always very happy, he's a happy boy". The additional guidance enabled categories to be further defined in order to support the coder(s) to differentiate between categories and maintain reliability (Bayerl et al., 2003).

The first author trained a second individual to code remaining attribution interviews in the larger RCT. The training was provided following the first authors achievement of inter-rater reliability. Training involved coding meetings, with reference to the manual and feedback was given on coded videos. The second trained coder illustrated that reliability could be achieved with the attribution measure across two independent coders; the ICC scores for the second coder were .90 and .64 for the valence and attribution domains respectively.

Strategy for Calculating Attributions of Positive and Negative Valence

SPSS syntax was adapted from a version provided by NAPR to calculate the attributions of positive and negative valence. The syntax enabled a calculation of positive and negative attribution based on the code ascribed to the parent's description of the scenario (i.e. valence). The total attribution of negative valence was calculated by summing attribution codes of each scenario where the valence was rated negatively (coded as minus one or minus two). If the valence was rated positively or had a mixed code (zero, plus one or plus two), the attribution code would be disregarded from the calculation. For attributions of positive valence, the reverse calculation occurred.

Analysis Strategy

As the study research questions sought to establish associations between variables, correlation analysis was used to assess each research question. The statistical tables in the results section include the correlation analysis performed. Tables three, four and five have rows which represent the data for each correlation, the first row represents the Pearson's Correlation Coefficient, the second row represents the partial correlation and the third row represents the Kendall's tau.

Pearson's Correlation Coefficient, r , was used to provide a measure of the linear relationship between variables. The correlation coefficient is rated between minus one (perfectly negative correlation) and plus one (perfectly positive correlation). Partial correlations were completed to control for variables that were known from previous research to influence relationships. This was intended to provide a clearer measure of the unique variance attributable to the variable considered in each hypothesis (Field, 2009).

The analysis strategy also included the Kendall's tau, τ , a non parametric test for correlational designs. This was selected to provide an accurate estimation of significance, in particular when distributions were not normally distributed and were not of an interval level of measurement (Field, 2009). While Pearson's correlations are relatively robust to minor violations of assumptions of normality, non-parametric tests were used to ensure that any observed associations were robust with a more conservative analysis strategy. See Appendix L for further discussion on the analysis strategy.

Results

Data was analysed using SPSS Statistics 20. Prior to analysis the data cleaning protocol (Appendix M) was followed to ensure the integrity and quality of data in line with good clinical practice and data management guidelines (Van den Broeck, Cunningham, Eeckels & Herbst, 2005). All analysis consisted of data from baseline; the sample included 38 parents, the majority of which were female ($n = 36$) with children aged between two and six years old (Table 2).

Preliminary Analysis

Missing data analysis was completed on all measures used within the study. This process provided further understanding of the validity of research findings and the potential biases which may have existed in the data (Horton & Kleinman, 2007). Missing data analysis showed there was no missing data for the BDI-II or child age. Missing data appeared within the attribution measure total score for both negative and positive valences ($n = 1$). The CARP sensitive responding scale showed missing data in the free play and Lego tasks ($n = 3$) as well as the tidy up and total score ($n = 4$). The SCS subscales and total score also had missing data ($n = 5$).

Missing data can be controlled for with further statistical analysis. Pairwise deletion was selected as this process had the advantage of utilising all observed data in the analysis. The disadvantage of this approach was that results could have contained potential biases, therefore results had to be interpreted with caution (Acock, 2005).

Distribution of data. Homogeneity of variance and linearity was assessed by scatterplots (Field, 2009; Appendix N). Normality of distributions were assessed by histograms and box and whisker plots; these are frequently used in assessment of normality (Henderson, 2006; Appendix O).

Table 2

Characteristics of Participants

	Participants (<i>n</i> = 38)
Female <i>n</i> (%)	36 (95)
White <i>n</i> (%)	37 (97)
Age of Participants (in years)	
<i>M</i> (<i>SD</i>)	36.18 (5.11)
Range	27-48
Age of Child in Trial (in years)	
<i>M</i> (<i>SD</i>)	4.13 (1.29)
Range	2-6
Marital Status: <i>n</i> (%)	
Single	2(5)
Co-Habiting	3 (8)
Married	27 (71)
Divorced	4 (11)
Separated	2(5)
Level of Education ^a : <i>n</i> (%)	
Some School Qualification	3 (8)
College of Vocational Qualification	12 (32)
University Degree or Professional Qualification	22 (58)
Standard Occupational Classification ^b : <i>n</i> (%)	
Major Group 1	2 (5)
Major Group 2	6 (16)
Major Group 3	5 (13)
Major Group 4	2 (5)
Major Group 5	3 (8)
Major Group 6	6 (16)
Major Group 7	2 (5)
Full Time Parent	11 (29)
Student	1 (3)

Note. ^aLevel of education was missing for one participant. ^bSocial class ranged from Major Group 1 (managers and senior officials) to Major Group 7 (sales and customer service occupations). Adapted from "Standard Occupational Classification 2000 (Volume 1)", by the Office of National Statistics. Copyright 2000 by Her Majesty's Stationery Office.

Relationship Between Parental Attribution and Parental Sensitive Responding

It was hypothesised that associations between attributions and sensitive responding would replicate previous research (Dadds et al., 2003; Bolton et al., 2003). It was hypothesised that sensitive responding would increase as attributions of negative valence were ascribed to external causes relative to the child. It was also considered that levels of sensitive responding would increase if positive situations were attributed internally. Associations between these variables were analysed using correlation statistics. Based on past research, it was expected that child age and parental level of depression would influence attributions of child behaviour and sensitive responding. These variables were therefore controlled in a partial correlation.

Correlations between sensitive responding and attributions of positive and negative valence are shown in Table 3. The first row represents the Pearson's Correlation Coefficient zero-order correlations. The second row represents partial correlations controlling for parental depression and child age. The third row represents Kendall's tau, non parametric correlations. As expected, attributions of negative valence were significantly negatively correlated with parental sensitive responding (CARP free play, tidy up and total score) and the coefficients suggested a moderate association. Scatterplots indicated that internal negative attributions are associated with less sensitive responding. The non-parametric correlations indicated that these remained significant, but the coefficients suggested small associations. Attributions of positive valence had no significant association with sensitive responding. Overall, the CARP total (which met the parametric assumptions of measurement) showed moderate associations with attributions of negative valence, indicating sensitive responding increased with external attributions.

Table 3

Zero-Order, Partial and Non Parametric Correlations of Parental Sensitivity and Attributions of Child Behaviour

Variable	Attributions of Positive Valence	Attributions of Negative Valence
CARP		
Free play	-.186	-.355*
	-.091	-.479**
	-.151	-.288*
Lego	-.171	-.222
	-.102	-.285
	-.074	-.190
Tidy Up	-.188	-.312*
	-.106	-.411*
	-.138	-.254*
Total Sensitivity Score	-.210	-.345*
	-.118	-.468**
	-.149	-.253*

Note. CARP = Coding for Attachment Related Parenting. The first row represents the Pearson's Correlation Coefficient zero-order correlations. The second row represents partial correlations controlling for parental depression and child age. The third row represents Kendall's tau, non parametric correlations.

* $p < .05$. ** $p < .01$.

The zero order correlations suggested that child age had a significant and moderately negative correlation in the CARP free play task, ($r = -.435, p < .01$), Lego task ($r = -.314, p < .05$), tidy up ($r = -.416, p < .01$) and on the total score ($r = -.451, p < .01$) but showed no significant association with attributions. The BDI-II showed no significant associations with sensitive responding or attributions. The partial correlations showed that when controlling for child age and depression, attributions of negative valence remained significant.

The results confirmed the hypothesis that parental sensitivity increased when negative situations are perceived with external causality in relation to the child. Sensitive responding showed no significant associations with attributions of positive valence.

Relationship Between Self-Compassion and Parental Attributions of their Child's

Behaviour

It was hypothesised that internal attributions of positive valence would be associated with high self-compassion scores, whereas internal attributions of negative valence would be associated with lower self-compassion scores and vice versa for external attributions.

Similarly, it was expected that child age would influence attributions; specifically, younger children would be viewed with less internal causality. Based on previous research it was expected that parental depression would be associated with attributions; an increased level of depression would be associated with more internal attributions in negative situations.

Preliminary analysis indicated the total scores for attributions and the SCS had normally distributed data without outliers. Histograms and box and whisker plots indicated that SCS subscales had approximately normally distributed data, although the SCS self-kindness subscale had several outliers. The scatterplots indicated linear relationships, although homogeneity of variance could not be assumed for all subscales of the SCS.

A Pearson's correlation was completed, whilst also controlling for the child age and severity of depression in a partial correlation. The Kendal's tau was completed to ensure observed associations were robust (Arndt, Turvey & Andreasen, 1999).

Significant, small to large correlations were observed between the SCS total and several SCS subscales in association with attributions of positive or negative valence (Table 4). The direction of the correlation is related to the SCS subscale; for example significant negative correlations are observed in SCS self-kindness (negative valence), SCS common humanity (positive valence) and SCS mindfulness (positive and negative valence), whereas significant positive correlations occur for the opposing subscales in SCS isolation (positive and negative valence) and SCS over-identification (positive and negative valence).

Table 4

Zero-Order, Partial and Non Parametric Correlations among Parental Self-Compassion and Attributions of Child Behaviour

Variable	SCSsk	SCSsj	SCSch	SCSi	SCSm	SCSoi	SCSts
Attributions							
Positive Valence	-.110	.279	-.437**	.332*	-.357*	.550**	-.454**
	-.091	.239	-.408*	.314*	-.344*	.546**	-.433**
	-.098	.196	-.330**	.189	-.197	.433**	-.297*
Negative Valence	-.341*	.292	-.211	.461**	-.316*	.335*	-.418**
	-.315*	.253	-.157	.432**	-.297	.282	-.379*
	-.361**	.206	-.184	.380**	-.268*	.231*	-.334**

Note. SCS = Self-Compassion Scale (-sk = Self-Kindness subscale, -sj = Self-Judgement subscale, -ch = Common Humanity subscale, -i = Isolation subscale, -m = Mindfulness subscale, -oi = Over-Identification subscale, -ts = Total Score). The first row represents the Pearson’s Correlation Coefficient zero-order correlations. The second row represents partial correlations controlling for parental depression and child age. The third row represents Kendall’s tau, non parametric correlations. * $p < .05$. ** $p < .01$.

Scatterplots indicated that higher scores on these subscales are associated with external attributions, whereas the reverse is true for opposing subscales.

Contrary to the hypothesis, there was no distinction between the attributions of positive versus negative valence. The data showed that higher levels of self-compassion were related to higher levels of external attribution regardless of the valence of behaviour described by the parent. The total SCS score evidenced this with moderate negative associations at $p < .01$ for each valence. These associations remained constant in partial correlations when covariates of age and depression severity were controlled, apart from SCS mindfulness and SCS over-identification in negative valence.

Relationship Between Self-Compassion and Parental Sensitive Responding

It was hypothesised that parental sensitive responding would be associated with higher levels of self-compassion rated by the SCS. As stated, previous research had indicated

that child age and parental depression were associated with sensitive responding, therefore both were controlled within this analysis.

Pearson's correlations (zero order and partial) were completed. This enabled an understanding of the association whilst holding covariates thought to influence the variables constant. However, Kendall's tau was completed to ensure accurate correlation and significance levels, particularly given that the CARP subscales violate the level of measurement assumption.

As predicted, correlations showed alternating directions of associations with several SCS subscales (Table 5). Significant positive correlations were associated with SCS common humanity in the CARP free play. The scatterplots indicated higher scores were associated with higher levels of sensitive responding. Significant negative correlations were shown with several opposing subscales of the SCS. Particularly, the SCS self-judgement showed significant negative associations in CARP freeplay and Lego tasks. The scatterplots indicated higher scores in SCS self-judgement were associated with lower levels of sensitive responding. Overall, the CARP total scores showed significant, moderate negative correlations with the SCS self-judgement and SCS over-identification subscales. These associations remained moderate when controlling for child age and parental depression, however SCS over-identification lost significance.

In summary, the results partially supported the hypothesis that higher scores in self-compassion were associated with higher levels of sensitive responding, evidenced by several SCS subscales in the free play task. Additionally, the self-judgement subscale showed significant associations in the Lego task and total scores.

Table 5

Zero-Order, Partial and Non Parametric Correlations among Parental Self-Compassion and Parental Sensitivity

Variable	SCSsk	SCSsj	SCSch	SCSi	SCSm	SCSoi	SCSts
CARP							
Free play	-.052	-.383*	.313*	-.221	.151	-.326*	.287
	.011	-.300	.243	-.264	.154	-.278	.265
	.008	-.279*	.266*	-.208	.153	-.255*	.208
Lego	-.026	-.392*	.130	-.277	.246	-.289	.268
	.040	-.361*	.087	-.328*	.252	-.300	.282
	-.047	-.286*	.069	-.226	.159	-.171	.180
Tidy	-.010	-.269	.121	-.183	.157	-.204	.192
	.075	-.215	.071	-.237	.161	-.201	.201
	-.048	-.231	.075	-.192	.127	-.148	.153
Total	-.033	-.399*	.215	-.260	.212	-.313*	.285
	.052	-.346*	.154	-.329*	.226	-.308	.296
	-.068	-.284*	.142	-.210	.113	-.208	.172

Note. SCS = Self-Compassion Scale (-sk = Self-Kindness subscale, -sj = Self-Judgement subscale, -ch = Common Humanity subscale, -i = Isolation subscale, -m = Mindfulness subscale, -oi = Over-Identification subscale, -ts = Total Score). CARP = Coding for Attachment Related Parenting. The first row represents the Pearson's Correlation Coefficient zero-order correlations. The second row represents partial correlations controlling for parental depression and child age. The third row represents Kendall's tau, non parametric correlations.

* $p < .05$. ** $p < .01$.

Discussion

This study provides the first evidence of associations between self-compassion, attributions of child behaviour and sensitive responding in parents with recurrent depression. The findings show that higher levels of self-compassion are associated with higher levels of external attribution in either positive or negative situations. Greater levels of self-compassion are also related to increased levels of sensitive responding in some SCS subscales. Additionally, higher levels of external attributions are associated with higher levels of sensitive responding in negative situations. These results have clinical implications for self-compassion; particularly considering previous research on the influence of negative attributions and reduced sensitivity on parent-child relationships.

This study indicates an association between external causal attributions of child behaviour and higher levels of sensitivity, when the situation is perceived as negative. Literature concerning parental attributions in a depressed sample previously focused on negative child events (Callender, Olson, Choe & Sameroff, 2012; Bolton et al. 2003). Therefore, the hypothesis concerning attributions in positive situations was based on previous evidence in other clinical populations (Dadds et al. 2003). This study replicates previous findings concerning negative events; attribution of internal child causality is associated with less parental sensitivity. There are no significant associations when situations are viewed positively. This finding may be an indication that attributions are salient in situations parents perceive as negative. This corresponds with previous research suggesting parents are likely to attribute causal information to negative child behaviour to gain control (White & Barrowclough, 1998).

One explanation for parental sensitivity increasing with external attributions is that when parents focus on external factors, it increases awareness of the situational demands influencing their child's behaviour, enabling them to sensitively respond. A sensitive parent

is able to predict and structure environments for their child (Shin et al., 2008). It is also possible perception of external factors increase awareness of situational demands common to human experience, as opposed to focusing on inward causality. This is in line with self-compassion literature suggesting awareness of common humanity is associated with social connectedness (Neff, 2003a). Stratton (2003) also explained that child-blaming was associated with stable, internal and personal attributions. Attributing blame to external factors may increase the parent's ability to feel less negatively towards the child, therefore increasing their ability to respond more sensitively. Dix (1991) theorised that "negative appraisals of the child relate to negative parental emotions, which increase the self-focus of parenting goals, thereby interfering with parents' ability to respond sensitively to children's needs" (cited in Leerkes & Siepak, 2006, p. 12).

Self-Compassion and Attributions of Child Behaviour

Self-compassion shows associations with parental attributions of child behaviour in both positive and negative situations. As expected, higher self-compassion scores are associated with external attributions in negative situations across SCS self-kindness, SCS isolation, SCS mindfulness and SCS over-identification. An intriguing aspect of the present finding indicates that higher self-compassion scores (SCS common humanity, SCS isolation, SCS mindfulness, SCS over-identification subscales and SCS total) are also associated with external attributions of positive behaviour. The associations remain constant even when controlling for parental depression and child age (except for SCS mindfulness and SCS over-identification in negative valence); both these variables were shown to influence attributions in previous research (Dix et al., 1986; Bolton et al. 2003).

In summary, the SCS total score and several subscales suggest that parents with higher levels of self-compassion are more likely to perceive and attribute the cause of child behaviour to external factors, such as situational influences, demands or constraints. This

suggests self-compassion is an approach that does not differentiate between positive and negative life events. Rather, it is a unifying approach towards the self and others. A fundamental aspect of self-compassion is the ability to process situations without biased perceptions; instead to approach them with mindfulness, common humanity and self-kindness. It is "an alternative conceptualization of a healthy attitude toward oneself" (Neff, 2003a).

It is possible isolation is related to internalising attributions due to the thought process that guides this subscale. Isolation develops when considering personal inadequacies or difficult life events are unique to the individual (Neff, 2003a). Perhaps if individuals view difficulties as only occurring to themselves, they are more likely to attribute events to internal factors, such as personality traits. Isolation has a sense of self-blaming, often associated with internal attributions (Stratton, 2003).

The opposite subscale to isolation is common humanity, which involves understanding that "all humans are imperfect, fail and make mistakes. It connects one's own flawed condition to the shared human condition so that greater perspective is taken towards personal shortcomings and difficulties" (Neff, 2009, p. 212). To understand common humanity the individual must have a sense of shared experience; the same is required to recognise external causes of behaviour. For example, external attributions relate to a wider perspective of behaviour and consideration of transient environmental causes (Dix & Grusec, 1983).

Mindfulness in the SCS relates to a balanced state of awareness that "shifts one's attention away from elaborative cognitive processing especially those thoughts creating stories about the self toward the nonjudgmental acceptance of present-moment experience" (Neff & Vonk, 2009, p. 26). Mindfulness may support the parent's awareness of present-

moment situational factors without biased perceptions, shifting from pre-existing cognitions and relying less on preformed ideas to explain their child's behaviour (Dadds et al., 2003).

Over-identification with thoughts and emotions is the opposite to mindfulness. This "magnifies feelings of separateness and isolation, as the sense of self is amplified and the awareness that all humans experience suffering and disappointment is obscured" (Neff, 2003a, p. 89). Neff (2003a) explained that over-identification may lead to excessive judgement and self-criticism, it is possible this approach is extended to conceptualising child behaviour; causing a tendency for internal attributions whether the behaviour is positive or negative.

Neff (2003a) explained that "self-kindness toward oneself softens this self-consciousness, allowing for more feelings of interconnection" (p. 90). It is possible that with self-kindness, parents view factors which impact on both themselves and the child. Self-kindness may be particularly important when considering external attributions in negative events as they may perceive their own influence as a cause of the child's behaviour. This corresponds to previous research concluding those high in self-compassion were more able to accept their role in negative life events without high negative affect (Leary, Tate, Adams, Allen & Hancock, 2007). This is particularly important for people experiencing depression as they show increased levels of rumination (Raes, 2010).

Self-Compassion and Parental Sensitivity

Self-compassion shows an association with parental sensitive responding as expected, specifically concerning SCS self-judgement (as shown in the CARP Lego, free play and total scores). This association remains (except in free play) when controlling for depression and child age, which are thought to influence sensitive responding. Differences were seen between CARP tasks as expected; consistent with previous research the less structured activity was particularly associated with higher levels of sensitive responding (O'Connor et

al., 2012). In summary, results partially support the hypothesis that higher levels of parental sensitivity are associated with an increased level of self-compassion, specifically lower self-judgement.

The association between self-judgement and sensitivity could be explained by the concept that less self-judgement encourages a similar thought processes towards others. Neff (2003a) explains that

Less judgment of oneself also allows for less judgment of others, as comparisons between oneself and others are not needed to enhance or defend self-esteem. Compassion is not extended to oneself because one is superior or more deserving than others, rather, it is done precisely because the individual recognizes his or her interconnectedness and equality with others (p. 87).

A parent with less self-judgement may feel more connected to their child and better able to respond sensitively. There may be less judgement of the child's behaviour, creating a sense of mindful acceptance towards their interaction (Neff, 2003a). It is thought that a non self-judgmental attitude reduces self-criticism and self-blame whilst increasing self understanding (Neff, 2003b). This may support a sense of parental self-efficacy and wider understanding of the interaction (Duncan et al., 2009), whereas self-judgement may lead to a sense of isolation and separateness (Neff, 2003a).

Strengths and Limitations

Caution should be applied to the results of this study due to the relatively small sample size, which could limit the possibility of finding valid results (Field, 2009). It was not possible to complete a valid power calculation for the primary research aims, however the current study could inform calculations for statistical power in future studies. Additionally, this study was a correlational design therefore it restricts the conclusions of the findings; specifically it is not possible to conclude causal relationships between variables.

A further limitation is the lack of inter-rater reliability monitoring in the trial data. The accuracy of coding data can reduce during the process due to coding drift (Yoder & Symons, 2010). Therefore, inter-rater reliability assessment should be conducted throughout the coding process in order to retrain and recode data if necessary (Yoder & Symons, 2010). Additionally, continuous monitoring facilitates feedback to the coders and exploration for reasons of unreliable data (Margolin et al. 1998). Ultimately, the assessment of inter-rater reliability increases the reliability of the data and interpretations of the findings (Lombard, Snyder-Duch & Bracken, 2002). Therefore, inter-rater reliability should be monitored throughout the coding process in addition to establishing reliability post initial training on the coding system.

The results should also be interpreted with caution due to potential biases which may exist in the findings due to missing data. The participant characteristics also indicate that these results are biased toward a predominately female sample. A large proportion of the sample are married and over half of the participants have a university degree, which could bias the results further. It is also possible that uncontrolled variables not included in the analysis may have affected the reported relationships, even though the study attempted to limit alternative explanations by controlling for relevant variables.

A further limitation is the lack of adjustment for multiple comparisons. The multiple tests could increase the type I error rate (incorrectly rejecting the null hypothesis) which can result in incorrect interpretations from the data (Westfall, Tobias & Wolfinger, 2011). Multiple testing increases the chance that a significant effect occurs due to chance, known as the familywise error rate. Multiple comparison adjustments control for type I errors and provide further certainty that significant results are accurate and reproducible (Westfall, Tobias & Wolfinger, 2011). Adjustments often involve increasing the *p*-value to ensure the familywise error rate remains at 0.05 (Rothman, 1990; Feise, 2002). Perneger

(1998) explains that adjustments, such as Bonferroni method increase the chance of type II errors. However, the Holm procedure is considered to be an improvement to the Bonferroni method and has more statistical power (Bender & Lange, 2001). Ultimately, a focus on higher control over type I errors increases the chance that resources will be dedicated to further research based on true effects (Feise, 2002).

Parent-child observations and interviews are relatively complex and time consuming. However, this has enabled gold standard assessment of the parent-child relationship in specific areas of interest. The measure of sensitivity provides an assessment of a core construct in the parent-child relationship, opposed to focussing on isolated parenting styles. Overreliance on parent self report is a particularly relevant issue for parents with depression; evidence has indicated that depressed parents tend to have a negatively biased interpretation of their own parenting practices (Chi and Hinshaw, 2002).

Clinical Implications

Overall, this study reports that self-compassion is associated with higher parental sensitivity and externalising attributions, which in themselves are associated with higher levels of sensitivity. Parental sensitivity has been shown to be a determinant in positive child developmental outcomes. Parents with depressive symptoms have been associated with less sensitive parent-child interactions and children of parents with depression are associated with internalising and externalising problems. Depression has also been shown to have a high rate of reoccurrence and is common in child rearing years (Maj et al., 1992; Cox et al., 1993). Although further research is needed; specifically exploring the effect of self-compassion on parenting, this research raises the potential benefits of an effective intervention which simultaneously reduces the rate of relapse and increases self-compassion in parents.

Mindfulness-Based Cognitive Therapy has shown to significantly reduce that rate of depressive relapse in people who have experienced three or more depressive episodes (Piet &

Hougaard, 2011). Neff et al. (2007a) explained that mindfulness-based interventions have shown to increase self-compassion as they "focus on accepting the self and one's difficult emotions with a nonjudgmental and compassionate attitude" (p. 151). Of particular interest to this study is the recent development of a treatment manual concerning MBCT for parents with a history of recurrent depression based at University of Exeter (Mann et al., personal communication, 2013). This intervention has adapted MBCT to focus on developing mindfulness and compassion toward parents and their children.

The overall project was designed as a feasibility project with the intention to inform a larger RCT. This study provides an initial indication of the associations between self-compassion and parenting. Future studies could assess whether there is any change in parental sensitivity and parental attributions following an intervention such as MBCT-P. Particularly, whether self-compassion mediates an increase in parental sensitivity and positive attributions of child behaviour.

Appendix A

National Research Ethics Service Approval



National Research Ethics Service

South West 3 REC

Whitefriars
Level 3, Block B
Lewin's Mead
Bristol BS1 2NT

Email: uhb-ir-southwest3@nhs.net

Telephone: 0117 342 1335

Facsimile: 0117 342 0445

27 January 2011

Miss Joanna Mann
Pen insula College of Medicine
Veysey Building
Salmon Pool Lane
Exeter EX2 4SG

Dear Miss Mann

Study Title: A Randomised Controlled Trial of Mindfulness-Based Cognitive Therapy (MBCT) for Parents Compared to Care as Usual
REC reference number: 10/H0106/81

Thank you for your letter of 19 December 2010, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information was considered in correspondence by a sub-committee of the REC. A list of the sub-committee members is attached.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

The Committee has not yet been notified of the outcome of any site-specific assessment (SSA) for the non-NHS research site(s) taking part in this study. The favourable opinion does not therefore apply to any non-NHS site at present. I will write to you again as soon as one Research Ethics Committee has notified the outcome of a SSA. In the meantime no study procedures should be initiated at non-NHS sites.

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

This Research Ethics Committee is an advisory committee to South West Strategic Health Authority
The National Research Ethics Service (NRES) represents the NRES Directorate within
the National Patient Safety Agency and Research Ethics Committees in England

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

For NHS research sites only, management permission for research ("R&D approval") should be obtained from the relevant care organisation(s) in accordance with NHS research governance arrangements. Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at <http://www.rdforum.nhs.uk>.

Where the only involvement of the NHS organisation is as a Participant Identification Centre (PIC), management permission for research is not required but the R&D office should be notified of the study and agree to the organisation's involvement. Guidance on procedures for PICs is available in IRAS. Further advice should be sought from the R&D office where necessary.

Sponsors are not required to notify the Committee of approvals from host organisations.

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	Version	Date
✓ Interview Schedules/Topic Guides	1. End of group interview	25 October 2010
Interview Schedules/Topic Guides	1. Attributions Interview - scenarios	25 October 2010
Interview Schedules/Topic Guides	1. Interview (AD-SUS)	22 October 2010
Questionnaire: Becks Depression Inventory II		
Evidence of Insurance or Indemnity	Ins. Cert.	27 July 2010
Referees or other scientific critique report	Reviews from Prof. Bleakley and K Matlock	
✓ Advertisement	1	18 August 2010
✓ Baseline appointment	1	22 October 2010
Questionnaire: SCS/COS		
✓ Trial allocation - MBCP-P	1	13 October 2010
Questionnaire: Subjective Units of parenting skills		
REC application	3.0	27 October 2010
CV for W Krykén		
✓ Letter to different teacher/nursery teacher/key worker	1	25 October 2010
✓ Ltr to GP - not eligible for trial	1	25 October 2010
✓ CV for Claire Shuttleworth		
✓ Reply Slip	1	25 October 2010
✓ Follow up ltr to teacher/keyworker/nursery teacher	1	22 October 2010
Subjective units of child's behaviour		
✓ Letter of Invitation from CI	1	25 October 2010
✓ Interest in trial	1	22 October 2010
✓ Letter to GP	1. Participation in trial	08 October 2010
✓ Trial allocation - care as usual	1	13 October 2010
Investigator CV	J Mann	
Response to Request for Further Information	Letter	19 December 2010

Participant Information Sheet	1.1 full version	13 December 2010
Protocol	1	22 October 2010
Letter of invitation to participant	1. Ltr of Invitation from GP	20 October 2010
Letter of invitation to participant	1. Teacher/Key worker/nursery teacher	25 October 2010
Letter of Invitation to participant	1.1	06 December 2010
GP/Consultant Information Sheets	1. Letter to GP. Risk	13 October 2010
Covering Letter		25 October 2010
Summary/Synopsis	1. Flow chart	22 October 2010
Letter from Sponsor		27 October 2010
Participant Consent Form	1.1 Part 1 (Screening)	17 December 2010
Questionnaire: Parental Stress Index short form		
Questionnaire: Eyberg child Behaviour Inventory		
Questionnaire: Your Health and Well-being		
Questionnaire: Five Facet mindfulness Q.		
Questionnaire: Strengths & Difficulties Q. 3-4yr		
Questionnaire: Strengths & Difficulties Q. 4-16yr		
Questionnaire: Subjective Units of well being		
Questionnaire: Co-parenting scale		
Questionnaire: Quality of Life		
Questionnaire: Aide to history taking	1.2	19 February 2010
Questionnaire: Practice Questionnaire		
Questionnaire: Telephone Screen	1	04 October 2010
Participant Information Sheet	1.1 Summary version	13 December 2010
Participant Consent Form	1.1	17 December 2010

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Now that you have completed the application process please visit the National Research Ethics Service website > After Review

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

The attached document "After ethical review – guidance for researchers" gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Progress and safety reports
- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

We would also like to inform you that we consult regularly with stakeholders to improve our service. If you would like to join our Reference Group please email referencegroup@nres.npsa.nhs.uk.

10/H0108/81 Please quote this number on all correspondence

With the Committee's best wishes for the success of this project

Yours sincerely

Dr Pamela Cairns
Chair

Enclosures: 'After ethical review – guidance for researchers'

Copy to: Dr Michael Wykes
m.c.wykes@ex.ac.uk

Ms Pam Baxter
Pam.baxter@nhs.net

South West 3 REC

Attendance at Sub-Committee of the REC meeting on 27 January 2011

Committee Members:

Name	Profession	Present	Notes
Dr Pamela Cairns	Consultant Neonatologist	Yes	
Mrs Angela Clarke	(Ex-social worker)	Yes	

Appendix B

University of Exeter School of Psychology Ethics Committee Approval



SCHOOL of PSYCHOLOGY
ETHICS COMMITTEE

Washington Singer Laboratories
Perry Road
Exeter
EX4 4QG

Telephone +44(0)1392264626
Fax +44(0)1392264623
Email Marilyn.evans@exeter.ac.uk

To: Joanna Mann
From: Cris Burgess
CC: Prof W Kuyken
Re: Application 2010/177 to Ethics Committee
Mindfulness-based cognitive therapy for parents with recurrent depression: compared to care as usual
Date: 18 October 2013

The School of Psychology Ethics Committee met on 17/02/10 and your NHS Local Research Ethics Committee application and approval were reviewed. In line with our procedures, your project is now de facto approved.

The agreement of the Committee is subject to your compliance with the British Psychological Society Code of Conduct and the University of Exeter procedures for data protection (<http://www.ex.ac.uk/admin/academic/datapro/>). In any correspondence with the Ethics Committee about this application, please quote the reference number above.

I wish you every success with your research.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Cris Burgess', with a horizontal line underneath.

Cris Burgess

Chair of School Ethics Committee

Appendix C

The Inclusion and Exclusion Criteria for the Study

Table 6

Inclusion and Exclusion Criteria

Inclusion Criteria	Description
In full or partial remission from depression	MBCT is designed for clients who are not currently experiencing depression. It is a relapse prevention program for people who are currently in full or partial remission.
Age 18 years plus	
Have experienced 3 or more previous major depressive episodes	There is evidence that MBCT is an effective intervention for those who have experienced 3 or more episodes of depression (Kuyken et al., 2008).
Are a parent (mother or father of one or more children ages between 2-6)	There is evidence that children ages between 2 – 6 can be effected by parental depression. It was also thought that parents of younger children be facing similar issues in terms of parenting.
Exclusion Criteria	Description
Current substance dependence	This would make it difficult for the parent to engage in therapy. While mindfulness interventions are used with people with substance dependence problems, this intervention is bespoke to the needs of this group in that they need to be able to bring awareness to thoughts and feelings without resorting to substances to avoid unpleasant experience.
Organic brain damage	This would make it hard for the client to engage in therapy.

(table continues)

Exclusion Criteria	Description
Current or past psychosis, this includes bipolar disorder	MBCT for parents targets particular mechanisms thought to underpin recurrent depression and these are likely different from mechanism that underpin bipolar disorder, Also, if a parent has bipolar disorder it's would be likely to affect them to a degree which would make it difficult to engage in the group.
Anti-social behaviour or persistent self harm	Any anti-social behavior may put other parents in the group at risk and if a parent engages in self-harm they may be less likely to benefit from the MBCT.
Already receiving psychological therapy	If a parent is already receiving therapy then this will likely affect the degree to which they benefit from MBCT. MBCT requires a significant investment of time and energy that would be difficult to find alongside another therapy.
Significant longstanding interpersonal difficulties (personality disorder) that require specialist or long term psychological treatment (not included in GP information).	These difficulties would make it more difficult for a parent to engage in the therapy and would likely adversely affect group functioning.
A parent of a child known to be at vulnerable risk	There are other services which would be more appropriate for such parents. Also the format of MBCT does not enable therapists to adequately manage this kind of risk.

Appendix D

Screening Interview Consent Form and Corresponding Information Sheet

17/12/10 Consent Part 1 (Screening)

Version 1.3



Study REC Reference Number: 10/h0106/81
 ISRCTN9806674

SCREENING CONSENT FORM

Title of Project: Mindfulness-based Cognitive Therapy for Parents compared to Usual Care

Name of Researcher: Joanna Mann, PhD student

1.	I confirm that I have read and understand the information sheet dated 13/12/2010 (Version 1.1) for the above study and have had the opportunity to ask questions.	
2.	I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
3.	I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
4.	I agree for the screening interview to be audio-taped.	
5.	I understand that if I am not eligible to take part after this screening interview all of the information which I provide will be confidentially destroyed.	
6.	I understand that the fact that I took part in this screening interview will be stored anonymously on file and may be used in the final analysis of data to confirm how many participants were screened.	
7.	I agree to complete the screening interview.	

Name of Patient	Date	Signature
Researcher	Date	Signature

1 for patient; 1 for researcher

Appendix E

Main Study Protocol Consent Form and Corresponding Information Sheet

17/12/10

Version 1.3



CONSENT FORM

Study REC Reference Number: 10/h0106/81
 ISRCTN9806674

Title of Project: Mindfulness based Cognitive Therapy compared to Care as Usual
Researcher: Joanna Mann, PhD student

Please initial box

1.	I confirm that I have read, understood and completed the 'screening consent form' (version 1.3 dated 17.12.10) for the above study and have had the opportunity to ask questions.	
2.	I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected.	
3.	I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from regulatory authorities or from the NHS Trust, where it is relevant to my taking part in this research. I give permission for these individuals to have access to my records.	
4.	I agree to take part in the above study.	
6.	I agree to my GP being notified of my participation.	
7.	I give consent for my child to take part in the parent-child observation.	
8.	I agree for my interviews to be audio-taped for research purposes.	
9.	I agree for the parent-child interaction to be video-taped for research purposes.	
10.	I understand that my child's teacher/nursery nurse/key worker or other appropriate professional will be sent a questionnaire at three time points during the study which is about my child's general behaviour at school.	
11.	I would like my name and contact details to be kept on a secure and confidential database so that I can be contacted about taking part in other studies being carried out within the Mood Disorders Centre.	

12.	I understand that the Mood Disorders Centre sometimes use data collected from research studies to develop future research, or for teaching purposes. I understand that data used in this way is stored securely in a locked facility at the University of Exeter and will always be handled confidentially and not used for any other purpose. I agree to my study data being used in the following ways, please initial relevant boxes:	
		Please initial box that applies
13.	Audio recordings for the development of future research studies.	
14.	Audio recordings for teaching purposes.	
15.	Video recordings of my treatment and the parent-child session for the development of future research studies.	
16.	Video recordings of my treatment and the parent-child observation for teaching purposes.	

Name of Patient

Date

Signature

Researcher

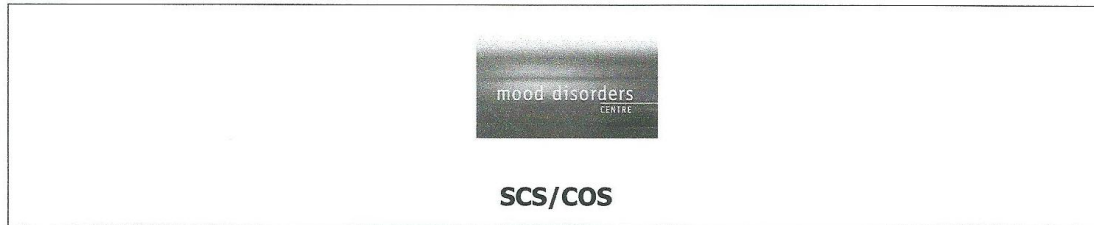
Date

Signature

1 for patient; 1 for researcher

Appendix F

Self-Compassion Scale Questionnaire



HOW I TYPICALLY ACT TOWARDS MYSELF AND OTHER PEOPLE IN DIFFICULT TIMES

Please read each statement carefully before answering. Using the following scale, indicate how often you behave in the stated manner by putting a cross in the appropriate box to signify **your own opinion** of **how you have typically acted** or felt towards yourself or towards other people during difficult times **during the past two weeks**. Please put ONE cross for each row. Don't agonise over individual answers, give the first response to each line that comes to mind:

	Almost Never 1	2	Neutral 3	4	Almost Always 5
1. I'm disapproving and judgmental about my own flaws and inadequacies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. When I'm feeling down I tend to obsess and fixate on everything that's wrong.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When things are going badly for me, I see the difficulties as part of life that everyone goes through.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. When I think about my inadequacies, it tends to make me feel more separate and cut off from the rest of the world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I try to be loving towards myself when I'm feeling emotional pain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. When I fail at something important to me I become consumed by feelings of inadequacy.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. When I'm down, I remind myself that there are lots of other people in the world feeling like I am.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. When times are really difficult, I tend to be tough on myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. When something upsets me I try to keep my emotions in balance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I'm intolerant and impatient towards those aspects of my personality I don't like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. When I'm going through a very hard time, I give myself the caring and tenderness I need.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. When I'm feeling down, I tend to feel like most other people are probably happier than I am.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. When something painful happens I try to take a balanced view of the situation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I try to see my failings as part of the human condition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. When I see aspects of myself that I don't like, I get down on myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. When I fail at something important to me I try to keep things in perspective.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. When I'm really struggling, I tend to feel like other people must be having an easier time of it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I'm kind to myself when I'm experiencing suffering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. When something upsets me I get carried away with my feelings.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Almost Never 1	2	Neutral 3	4	Almost Always 5
21. I can be a bit cold-hearted towards myself when I'm experiencing suffering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. When I'm feeling down I try to approach my feelings with curiosity and openness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I'm tolerant of my own flaws and inadequacies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. When something painful happens I tend to blow the incident out of proportion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. When I fail at something that's important to me, I tend to feel alone in my failure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I try to be understanding and patient towards those aspects of my personality I don't like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I try to be loving towards other people when they are feeling emotional pain.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. When other people are going through a very hard time, I give them the caring and tenderness they need.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. I'm kind to other people when they are experiencing suffering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I'm disapproving and judgmental about other people's flaws and inadequacies.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. I can be a bit cold-hearted towards other people when they are experiencing suffering.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. When I see aspects of other people that I don't like, I feel critical towards them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. I'm intolerant and impatient towards those aspects of other people's personality that I don't like.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix G

The Coding System for the Coding of Attachment-Related Parenting

Adapted from “Coding of Attachment-Related Parenting (CARP),” by C. Matias, S. Scott & T.

G. O'Connor, 2006, unpublished manuscript, Institute of Psychiatry, King's College London, UK.

1 – *Unresponsive/Insensitive Parent.*

Note: There has to be: a) clear pervasiveness (i.e. presence for most of the time) of absence of responsive behaviours displayed by the parent as defined above; or b) one modest example of responsiveness against a background of pervasive and intense non-responsiveness. Specific examples are shown below:

- a) Parent does not respond to the child's verbal or non-verbal seeking behaviours. Example: child picks up several pieces of Lego, looking at the parent frequently as if trying to make sense of what to do with the several pieces he has picked up and the parent does not make a responsive comment or does not offer responsive instrumental help attuned to the child's needs (e.g. in this case, there is lack of paternal/maternal responsive help so that child can understand what to do with the toys).
- b) Disengaged parent. Example: during the play, parent is silent most of the time, is passive towards the play not taking the initiative to interact with the child and, if child does not “invite” the parent to play with her/him, the parent will accept this type of “arrangement” keeping himself/herself distanced and dismissed from what the child is doing. On the other hand, the parent can be very talkative but, nevertheless is still unresponsive to child.
- c) Absence of Child Mindedness. Example: In a situation where the child shows obvious signs of frustration or boredom with regards to the task in hand, his/her parent does not comment on this emotional state.
- d) No Facilitation. Example: The parent does not encourage the child to perform an activity if it's obvious to the observer that the child is able to do it alone. Also, if the child presents the parent with some ideas as to how to move the play along, the parent will not provide support to the child's ideas.
- e) No warmth. The parent's affectionate style toward the child is completely neutral. Example: the child presents the parent with a “new” playdough toy that he/she built by his/her own, smiling at the parent at the same time and he/she ignores such warm/enthusiastic behaviour by the child.

2 – *Minimally Responsive/Sensitive Parent.*

Note: The degree of pervasiveness and the degree of intensity (e.g. clear/unambiguous signs of responsiveness) indicates predominantly non-responsive behaviours toward the child; a ‘2’ differs from a ‘1’ in showing at least two modest examples of responsive behaviours amidst a general pattern of non-responsive behaviours. Example: even if all the above elements constitutive of this dimension of “Responsiveness/Sensitivity” are not present during the entire interaction, this is a parent that was responsively engaged (weak/modest example) at least twice at some point during the play.

Matias, C (2006)

3 – *Fairly Responsive/Sensitive Parent.*

Note: This parent will provide some scattered evidence of responsive behaviours but these won't constitute strong/obvious signs of a responsive attitude. Overall, he/she is more non-responsive than responsive; or he/she shows two strong examples of sensitive responsiveness (e.g. warmth) amidst a strong pattern of insensitive responsiveness.

4 – *Somewhat Responsive/Sensitive Parent.*

Note: The intensity/frequency in which responsive behaviours are displayed is balanced by the intensity/frequency in which non-responsive behaviours are displayed. Thus, several examples of responsive behaviours will be balanced with several examples of non-responsive behaviours. The overall impression would be that this is a parent that is partly responsive and partly non-responsive; neither style dominates. There is unpredictability and inconsistency in parental responsiveness; or, clear examples of responsive behaviours are offset by clear examples of non-responsive behaviours. Example: A parent that, albeit showing several signs of warmth toward his/her child, provides several behavioural cues as to how disengaged he/she is regarding his/her child's activity.

5 – *Good Responsive/Sensitive Parent.*

Note: There is an overall pattern in which responsive behaviours are greater/more prominent than non-responsive behaviours. Thus, the general style is responsive. The examples of responsive behaviours are clear examples and unambiguous. These, however, are offset by modest or infrequent examples of non-responsive behaviours. Example: generally, parent provides child with assistance, facilitates his/her actions and is warm but, even if in fewer instances, he/she also seems disengaged and not child-focused.

6 – *Very Good Responsive/Sensitive Parent.*

Note: There has to be a consistent pattern where episodes of responsive behaviour are displayed. This is a parent that consistently shows signs of responsiveness as defined above. However, although consistently exhibiting signs of responsiveness, there may be at least one example where responsive behaviour might be expected but is not seen; or, there will be clearer examples of responsive behaviour, but mild evidence of non-responsive behaviour. Example: Parent consistently provides: a) assistance to child's verbal or non-verbal seeking behaviour, b) engagement, c) facilitation and d) warmth.

7 – *Extremely Responsive/Sensitive Parent.*

Note: This parent must either display all the above criteria or those that are displayed must be extreme manifestations of responsive behaviour. The various types of responsive behaviours are pervasive and completely unambiguous to the observer.

Appendix H

The Child Observation Procedure

Free Play

- 1) I check with mum/dad if it is ok to use Playdough. I say: “I have some toys for you to play with mum / dad.”
- 2) I then get out the Playdough mat and pots etc (or the tea set if mum / dad would prefer that).
- 3) Set up the camera. Make sure you can see mum/dad and child well and see their hands etc – so nothing is being blocked.
- 4) I say “I am just going to leave you to play with mum/dad for 5 minutes, I will back in a bit”.
- 5) Begin timer. Return in 5 minutes.
- 6) Turn camera off (pause button).
- 7) I say something like “oh wow, look at what you have made!”. I then say “I have something for you to make with mum now”. If it is ok with the child I then say “could we just move the Playdough to the side, leave it out but just move it out of the way for a bit”. (Can put pots on Playdough to keep it soft).
- 8) N.B if they want to carry on playing with the Playdough for a bit I leave that up to mum/dad and say it is fine for them to (time dependent).

Lego Task

- 1) Turn camera on.
- 2) I get out the Lego.
- 3) I explain that I have a picture of a Lego man and would like them to try to make it with their mum/dad.

- 4) I say “There is one rule to this game, which is that mum/dad can’t touch the bricks. They can talk to you to help you but they can’t touch the bricks. You will also see that we are missing two of the colours of bricks, you can choose two colours to replace them with.”
- 5) I say “I will leave you to it and I will be back in a bit to see how you are getting on”.
- 6) Set the timer.

Tidy Up

- 1) Return – turn camera off (pause button).
- 2) I say “wow look at what you have made!” “Thank you for trying to make it. Now it is up to you – you can either finish it off or leave it as it is (I have turned the camera off).
- 3) If happy to leave it as it is I say “the last thing is for you to tidy up together. I will leave you to tidy up”.
- 4) Turn camera on – leave them to finish the tidy up.

Appendix I

The Attributions Measure Semi-Structured Interview

25/10/10

Version 1.1



ATTRIBUTIONS INTERVIEW - SCENARIOS

ID:

Date:

Research worker name:

I'd like to give you some examples of some things that might happen in a home, you might recognise these from last time we interviewed you. I would like you to imagine it is *(child's name)* doing these things. What would you think if *your child* behaved like this, and how would you respond?

1. Your child is playing with a computer game and asks his/her friend if they would like a turn.
2. You drop a bag of shopping as you come through the door. Your child comes over and starts picking up things and putting them back in the bag.
3. Your child is in the kitchen and you hear a plate smash.
4. You come into the room and find your child sitting behind the sofa.
5. Your child is playing a game with a friend and grabs the controls for the game from them.

6. You are helping your child clean up and your child says “I hate you.”

The following applies for each scenario:

Probe for the following (only ask each if information not given through the other probes!)

- What do you think is happening?
- Why is your child acting like this?
- How would it make you feel?
- What would you do?

Appendix J

The Coding System for the Attributions Measure

SCENARIO	VALENCE <i>How would you describe with behaviour?</i> 2 Clearly Positive 1 Somewhat Positive 0 Neutral, Unclear, Mixed -1 Somewhat Negative -2 Clearly Negative	ATTRIBUTION <i>Why is he/she acting like that?</i> 2 Clearly Internal 1 Somewhat Internal 0 Neutral, Unclear, Mixed -1 Somewhat External -2 Clearly External	PARENT'S FEELING <i>How does that make you feel?</i> 2 Clearly Positive 1 Somewhat Positive 0 Neutral, Unclear, Mixed -1 Somewhat Negative -2 Clearly Negative	RESPONSE <i>What would you do?</i> 2 Clear praise, reward, affection 1 Mostly positive parent response 0 Neutral, Unclear, Mixed -1 Mostly negative parent response -2 Clearly External
ID:		TIME POINT:		
1				
2				
3				
4				
5				
6				
6				

Appendix K

An Abridged Version of the Comprehensive Coding System Manual for the Attribution

Measure



A Comprehensive Coding System Manual for the Attribution

Measure as part of a Doctorate in Clinical Psychology Major

Research Project

Written by

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Trainee Clinical Psychologist

College of Life and Environmental Sciences, University of Exeter

Note: Adapted from documents received on coding the attribution from The

National Academy of Parenting Research

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Specific Coding for Feeling_____	p. 25*
The Feeling Coding_____	p. 26*
Specific Coding for Response_____	p. 28*
The Response Coding_____	p. 29*
Appendix A: Coding sheet_____	p. 31*
Appendix B: Further Coding Examples_____	p. 32*
Appendix C: The Attributions Interview_____	p. 59*

Note. Page numbers in this contents page reflect the page numbers in the Coding System Manual for the Attribution Measure; they do not relate to the major research project appendices. Quoted examples taken from parent interviews conducted by NAPR and as part of a wider RCT for MBCT-P for parents with depression. Not all examples have been included due to restricted word limit.

* Denotes sections removed for the abridged version.

Considerations for Coding the Attribution Measure

Coding the Attribution Measure from the parent interview can present several issues which require careful consideration to enable effective and reliable coding. The typical issues which cause potential difficulties and require consideration prior to coding are described. Guidelines to respond in to each area are presented in order to ensure reliable coding.

This manual was intended to be used to ensure reliable coding; it is intended to be used in conjunction with training provided by a gold standard coder. It is considered that the coder will already have a basic understanding of the coding scheme.

More Than One Answer

If the parent provides more than one description of the behaviour it may be difficult to code the remaining scenario if there is always reference to the two different descriptions.

Try to initially establish whether the parent is naturally tending towards one description of the behaviour. This could be established by considering an overview to the parent's response. Areas to consider include whether there is:

- An instant answer
- A clear emphasis on one description of behaviour over the other
- Whether one answer is 'half-heartedly' tagged onto their answer
- Whether there is an immediate and emphasised response to a follow up question such as "which one is more likely?"
- One answer the parent clearly considers and elaborates on.
- Look for a specific description of the behaviour

If you can identify a clear motivation towards one 'true' description of the behaviour, code the remaining scenario in reference to that description. An answer which is clearly mixed should be coded as such even if the interviewer has requested a decision such as "which one is more likely?".

The description of the scenario is linked to the remaining coding, i.e. “I think she is playing” should be followed by attributions and feelings and response for considering the situation as “playing”. If the parent switches the description of the behaviour half way through, consider the above for mixed answers (i.e. which is their true answer for that scenario).

Mixed Answers

The ‘mixed’ code of each domain has different criteria, therefore answers should be coded with reference to the specific section of the Attribution Measure. Appropriate situations when the domain should be coded as mixed follows:

- The parent gives multiple descriptions of the behaviour consisting of mixed codes, neither are stronger than the other.
- The parent provides multiple attributions for the description of the behaviour consisting of mixed codes, neither being stronger than the other.
- The parent provides more than one feeling within the same description of the behaviour.

Selecting the Information to Code Each Domain

Codes for each domain may be answered in response to a prompt not designed for that domain. The interviewer may also return to answer a domain that has been omitted. The initial step is to carefully consider the meaning of each domain and the corresponding information provided by the parent. A clear and brief description of each domain to reflect on during this process follows:

- Valence: Describing what the child is doing
- Attribution: The cause of the behaviour
- Feeling: The emotion/feeling within the parent
- Response: The parents response following child behaviour

Coding the Parent's Words

Code only the parent's words: do not use the interviewer's summary feedback statement to the parent. This is not necessarily a true representation of the parent's thoughts. The only exception to this is when the interviewer is repeating what is said word for word because the parent's voice was low in volume.

Catches for Each Domain in the Attributions Measure

Interviews can generate some difficulties which restrict or alter typical coding of a domain. Typical situations when an interview may deviate from the structure are considered here with guidelines on how to respond to each situation.

Coding the Valence

Unable to imagine scenario. When a parent says “that would not happen” it limits what can be coded. The parent must have given answers with it in mind that the scenario has happened.

Direct description of behaviour. Sometimes a description of the behaviour is not directly given, instead the parent might glance over ‘what is happening’ straight into a feeling. If a valence answer is not given but becomes apparent from the feeling, code the valence appropriately.

Coding Attributions

Locating the attribution in the interview. The following are aspects to consider when coding the attribution domain:

- Code the attribution from its question with the whole interview in mind.
- Listen for the cause of behaviour, sometimes parents will continue to describe the situation under the attribution question and then give an attribution later in their answer.
- Code the attribution from information the parent has given within the attribution question. A parent may repeat the attribution from information provided in the valence section; it is acceptable to code this as the attribution.
- Even if the parent has given an attribution in the valence, they will often repeat or elaborate on an attribution when asked the question directly. Code from the attribution section.

- Rare: If a parent has elaborated on a cause of the behaviour within the valence and does not provide a full answer following the attribution question, code considering the attribution given in the valence question.
- Rare: If an attribution does not occur within the attribution question consider whether the attribution has occurred elsewhere in the interview.
- If a mild attribution is strongly emphasised it could upgrade it. Consider the whole interview.
- Mixed answers in attribution: Consider the whole answer and whether the answers are all external, all internal or mixed.

Accidents. A parent may describe the valence as an accident. When the parent is asked the attribution question they might refer to the accident. However, there are aspects which should be considered when coding the response “accident” when coding the attribution section:

- Accidents are coded as a -2 if the parent attributes behaviour only to this, for example “it’s an accident, it could happen to anyone” would be considered external to the child.
- The parent may say the accident happened because the child was “being clumsy” or similar. Here the parent is attributing the cause of the accident to a temporary, internal trait and therefore it should be coded as +1. All information should be taken into account.
- Consider whether there are multiple reasons provided in the attribution which are internal and external. For example, “they are being careless and dropped it, or completely accidentally” would contain both internal (being careless) and external causes (accident) therefore would be coded as mixed.

Moods. Moods are coded as temporary, internal states. However, be careful to note when reference to the mood is not the parent’s attribution; for example, if the mood is used to further describe the child's behaviour and is not a causal attribution of the behaviour.

Mood can be referred to by the parent as a causal attribution. However, within the context of the entire sentence a mood can be coded across any domain, For example:

- Describing the mood as a stable, internal, global trait would be +2, e.g. “he’s always very happy” or “he’s a happy boy”.
- Describing a mood that is temporary without additional causes would be +1, e.g. “he’s in a silly mood”.
- An unclear attribution is coded as 0, e.g. “he’s angry, upset about something”.
- Internal trait caused by something external is coded as -1, e.g. “she’s angry because the other boy will not share.”
- Reference to mood caused by something clearly external would be -2, e.g. “there’s a fire and she is terrified”.

Specific Coding for Valence

Valence of child behaviour. The way behaviour is labelled, interpreted and described by the parent. Judgement in the explanation of this behaviour.

Further explanation. Even if the parent says “it’s not normal for her to be helpful” the valence would be coded as “helpful” as this is the judgement of the behaviour, regardless of whether they think it fits their child. Sometimes similar descriptions of behaviour can be coded differently depending on wording or tone; see the examples below.

To consider. If a word is reiterated in a category that normally receives a +1 or -1 it may get upgraded to +2 or -2 if the parent is stressing something even though the word(s) are quite mild.

The Valence Coding

The five point Likert scale is described below for each code. Typical examples of parent responses are provided as guidance for reliable coding. This is intended as a prompt and no substitute for listening closely to the parent's answers.

+ 2 Clearly positive

Examples:

- "Sharing" (inc. "he doesn't share")
 - "Very good"
 - "Helpful" (inc. "wants to be", "very", "acknowledged I needed help", "helpful mood", "not normal for her to be helpful").
-

+1 Somewhat positive

Examples:

- "Playing"
 - "Part of playing the game"
-

0 No judgment in explaining the behaviour

Describes something else other than behaviour e.g. child feeling

Unclear e.g. denying the situation would happen

Some descriptions said is isolation are fixed as this category e.g. accident

Mixed: several suggestions

Examples:

- "Accident" (inc. "trying to reach", "dropped a plate")
- "Wouldn't happen"
- "Feeling sad"

- “Jumping out to say boo”
 - “Doesn’t want to be cleaning up” (said in a neutral way)
 - “Wants to see how friend does”
-

-1 Somewhat negative description of behaviour.

Examples:

- “Done something wrong”
 - “Not sharing”
 - “Bit lazy”
 - “That’s not nice”
 - “Frightened of something”
-

-2 Clearly negative, may be indicated by strong adjectives.

Examples:

- “Snatching”
- “Dominant”
- “Aggressive”
- “Impulsive”
- “I didn’t let him do what he wanted” (it later becomes clear that she thinks it is clearly negative, for example expressing she would feel “gutted”)

Specific Coding for Attribution

Attribution of the Child's Behaviour

How the parent explains their child's behaviour in the scenario; the cause of the behaviour, what the behaviour is dependent on for it to occur.

Attributing the behaviour with internal or external causality can become unclear in utterances which include a detailed and extended explanation. Keep in mind clear and simple definitions of internal versus external attributions:

- Internal attributions ascribe the causes of behaviour to personal dispositions, traits, abilities, and feelings. These are commonly global and stable over time.
- External attributions ascribe the causes of behaviour to situational demands and environmental constraints. These are commonly situation specific and transient.

The Attribution Coding

The five point Likert scale is described below for each code. Typical examples of parent responses are provided as guidance and is no substitute for listening closely to the parent's own words.

+ 2 These include clear examples of global, stable traits and personal dispositions which strongly indicate that something internal to the child is causing the behaviour.

Examples:

- “Basically quite a sharing person”

This description of the child locates this behaviour as a facet of her personality, thus it is clearly internal.

- “He’s competitive”

The attribution is given as a personality trait and therefore coded as clearly internal.

- “Wants a go, ADHD, reacts without thinking”

This is clearly internal with repeated internal attributions and one strongly internal – ADHD.

- “Wants a go, being impatient, doesn’t have much patience, can’t say what he wants”

This starts as somewhat internal and finishes with two trait-like, global and stable descriptions; therefore it is coded as clearly internal.

+1 Attributions that are somewhat internal to the child but are less definitive or stable than statements indicating traits and personalities

Further definitions:

- A temporary state
- Internal but not set personality trait
- Situational

- Mood driven

Note: To ‘want’ or ‘like’ something that is the result of a personality trait is coded as +1; for example, “likes to play” could be linked to the trait ‘playful’. As a trait has not been explicitly mentioned it is only somewhat internal. Generally, likes and wants are internally driven desires of the child and are thought of as internal attributions.

Examples:

- “Can be helpful”.

This is description of an internal feature that is temporary and weaker than saying directly the child is helpful. Thus it is coded as somewhat internal.

- “Accident, sometimes can be clumsy”.

This is a personality, i.e. internal, attribution however it is not stable and global therefore it is coded as somewhat internal.

- “He’s in a good mood”.

This is an internal attribution (mood), however it is temporary and not a personal characteristic, therefore a somewhat internal attribution.

- “Likes to please people”.

‘Like’ is somewhat internal attribution.

- “Wants to help, likes to”.

This is internal but not strong enough to be a global, stable trait, thus it is somewhat internal.

- “Controlling, wanting own way”.

This is internal but not made explicitly a personality trait thus it is somewhat internal.

- “Likes to take charge, bit impatient”.

These are internal attributions however they are unstable and not offered as set personality traits, thus it is coded as somewhat internal.

- “She likes playing behind sofa”.

This is somewhat internal because it is describing features of the child but they are not fixed personality traits.

- “She loves it”.

Liking or loving is somewhat internal. It is not fixed enough to be clearly internal.

0 Attributions that are mixture, neutral or unclear or common child behaviour

Further definitions:

- Not attributing the behaviour
- Some typical descriptions said in isolation are located in this category, e.g. referring to the behaviour as “normal child behaviour”
- Unclear attribution – it does not relate to an attribution of child behaviour

Examples:

- “Doing something cheeky”.

This is an unclear attribution – it does not specify whether the attribution is internal or external.

- “Looking for a way to vent”.

It is unclear whether this is due to a personality trait or some other internal/external factor, thus it is coded as unclear.

- “Done something he didn’t want to face”.

This is an unclear attribution – it does not specify whether the attribution is internal or external.

- “He’s angry, upset about something”.

This is an unclear attribution – it does not specify whether the attribution is internal or external.

- “Playing or hiding”.

This is an unclear attribution – it does not specify whether the attribution is internal or external.

- “Hiding, wants you to find him, part of a game” or “Just kids”.

Playing is part of normal childhood behaviour and therefore coded as neutral.

- “Feeling in need of something, can’t be bothered, I’m making him clear up”.

This attribution includes some aspects that are internal to the child – “feeling in need”, “can’t be bothered” – but also includes the parent “making him”, which is an external attribution. Therefore this is coded as mixed.

- “She thinks it’s good for her to help and I say this”.

This is mixed with both mother (external) and child (internal) given as attributions.

- “Taught her that’s the right thing to do, she’s good at being helpful”.

This is mixed, the parent has taught her (external) and child is good at being helpful (internal, trait).

-1 Attributions that are somewhat external to the child relating to a specific situation or the surrounding environment code.

Further definitions:

- Somewhat external
- Implication of accident

Note: If what is wanted or liked by the child is an external, tangible object, it is then coded as -1. This is because it is thought that the want/like/desire is driven by the external object and so this is coded as such. They are thought to represent an external motivation for the behaviour. If this external motivation in the environment was not present then the behaviour would not take place.

Examples:

- “He wants me to know he’s upset about something”, “he doesn’t want his character to get killed”.

These are related to external attributions (a video game and a focus towards the mother respectively) but are weakened by *wanting*, which is more internal, thus it is coded as somewhat external.

- “I didn’t let him do what he wanted”.

This is attributing the behaviour to mother but with some role of the child (i.e. “what he wanted”), so it is somewhat external.

- “Only because he doesn’t want to do what I’m asking him to do”.

This is attributing the behaviour to the parent but with some role of the child (i.e. “doesn’t want to”), so it is somewhat external.

- “Reacting against what I’m telling her to do”, “Cross at fact I’m making him tidy up, doesn’t want to do it”.

This is attributing the behaviour to the parent but with some role of the child (i.e. “reacting against”), so it is somewhat external.

- “She checked if I bought something for her”.

This is attributing the behaviour to mother (I bought her something) but with some role of the child (“she checked”) so it is somewhat external.

- “He wants to let them have a go and enjoy it too”.

This is attributing the behaviour to external causes (“wanting them to have a go to enjoy it”) but with some role of the child (“he wants to let them”), so it is somewhat external.

-2 Attributions that are clearly external to the child relating to a specific situation or the surrounding environment

Further definitions:

- Driven by something external
- Attributing behaviour cause by an external factor e.g. mother wanted him to do it

Examples:

- “There’s a spider on the floor, she’s terrified”.

This is clearly external – the spider is the cause of the behaviour.

- “Something good I’ve taught him”.

This is completely external as it is the parent who has taught him this behaviour.

- “He will, with prompting, because he knows I need help, I trained him”.

This attribution re-iterates the external causes for the behaviour: prompting “I need help, I trained him”. Thus it is coded as clearly external.

- “Resenting the fact I’m making him do something or something happened at school”.

Both causes for the behaviour are attributed externally, thus it is coded as clearly external.

- “Accident”. An accident is coded as an external attribution.

- “Bored of it, that’s how he enjoys playing it, how you play the game”.

This behaviour is attributed to a feature of the game thus it is clearly external.

- “I probably made her clean up, no. I would have had to really upset her and put her in that position, if I haven’t let her do something”.

This attribution re-iterates the external causes for the behaviour. Thus it is coded as clearly external.

- “I’ve done something to upset her”.

This places the cause of the behaviour with the mother therefore it is clearly external.

- “Been asking her to help me, nice if you help mummy or from just seeing me, likely cos I have asked her”.

This attribution re-iterates the external causes for the behaviour. Thus it is coded as clearly external.

Appendix L

The Evidence Base for Statistical Tests Used in the Study

Pearson's Correlation Coefficient

Pearson's Correlation Coefficient, r , is a measure of a linear relationship between two variables. The standardised covariance (correlation coefficient) provides the strength and direction (between -1 and +1) of a relationship. The correlation coefficient is an indication of effect size. Cohen (1988) suggested the following guidelines for the size of an effect: $\pm.1$ represents a small effect, $\pm.3$ a medium effect and $\pm.5$ a large effect (cited in Field, 2009).

The parametric test has an assumption that the measurement of data has homogeneity of variance, independence and at least interval level of measurement (Field, 2009). Pearson's r is sensitive to outliers in data and can bias the results. The significance of the correlation coefficient is valid when the data is normally distributed (Field, 2009). Pearson's r is considered to be an "extremely robust measure in respect to violation of assumption" particularly concerning ordinal and non normally distributed data (Norman, 2010, p. 630). Data analysis was also completed with consideration to significance levels of r , which are influenced by the sample size. Smaller sample sizes require the correlation to have large values to reach significance (Sedgwick, 2012).

A partial correlation can be conducted to control for the effect of an additional variable in order to find the size of unique variance (Field, 2009). Therefore, variables that are known to influence the interaction will be held constant, providing clearer a measure of unique variance (Field, 2009).

Kendall's Tau

Kendall's tau, τ , is a non parametric correlation which provides accurate estimations of significance, particularly in smaller sample sizes (Field, 2009). It is reported to have adequate statistical power (reducing the chance of type II errors), better protection from type

I errors when the data contains outliers, has non constant variance and highly skewed distributions (Arndt et al., 1999). The Kendall's tau has been shown to be more conservative and is less powerful than Pearson's r but seems to provide more stable and replicable results when particular assumptions are violated (Arndt et al., 1999).

Appendix M

Data Cleaning Protocol



This document lays out the protocol for ensuring data integrity and completeness within the MBCT-P pilot groups and exploratory RCT. This protocol also sets out the process for generating summary scores on each measure in order for the main trial analyses to take place.

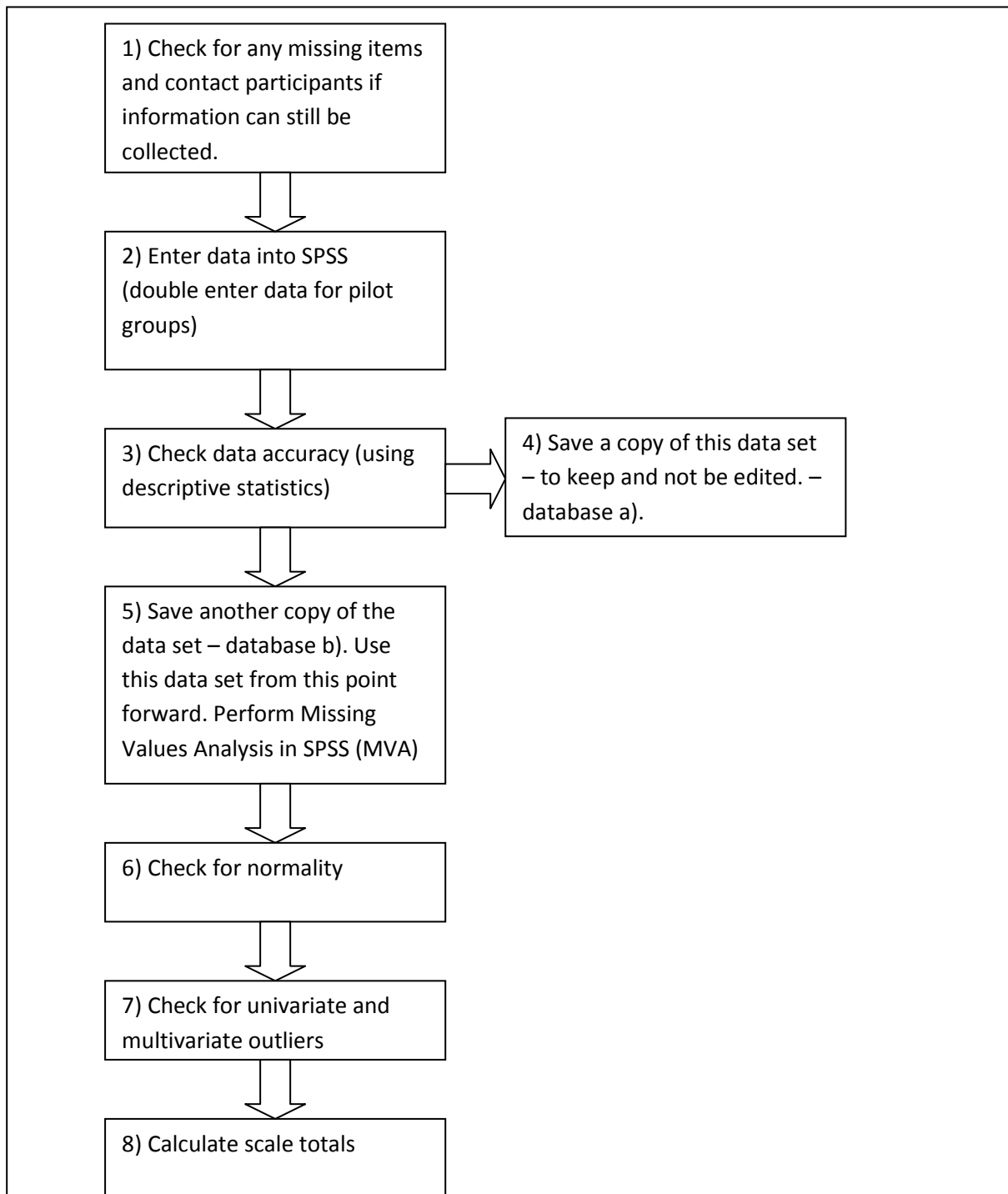


Figure 1. Flow chart for the data cleaning protocol. This follows the method suggested by B. G. Tabachnick, and L. S. Fidell, 2001, Using Multivariate Statistics (4th ed.) Copyright 2001 by Pearson.

Checking Data

All data which is received from participants in person or through the post needs to be checked for missing items. Any missing items need to be recorded in the front of the anonymised file (file checklist), or on the central 'missing items' list stored on the N drive. Where it is still feasible to retrieve the data participants should be phoned (or asked in person) for the missing data. Missing data will be left as 'system missing' in SPSS (a blank data field). Data which is not applicable will be entered as '99'.

Data Entry

All data needs to be entered into SPSS - double data entry will be used for the pilot groups and the trial data.

Double Data Entry

Compare databases using Excel double data entry. Leave any missing items as a '.' in SPSS. SPSS will then recognise them as missing 'system missing' values and not as data. Items which are not applicable will be left as '99'.

Copy data across from SPSS into 'sheet 1' and 'sheet 2' of an excel workbook using the same headings. Create a third sheet again with the same headings and enter the following into cell A2: =IF(EXACT(SHEET1!A2,SHEET2!A2),0,SHEET1!A2&"/"&SHEET2!A2

Items which match in sheet 1 and 2 will show up as '0' in cells and any others will show the two different entries.

Check each of the entries that doesn't match and go back to the data to enter the correct value into both excel spreadsheets and compare them again – (until they both agree).

Check that all system missing values match on both databases, in order to tell if a value is actually missing rather than not having been entered.

If using excel - move the data back into SPSS (if applicable - can copy and paste entire dataset back).

From this point onwards any changes made to the data set need to be noted in the 'Data Log' with the date and version of the database saved. Re-save each database with a new date each time it is altered. The changes noted need to be specific- i.e. which participant ID was changed, what was changed and why.

Checking data accuracy

It is important to check the accuracy of the data, check this for each scale item. Check if there are any out of range values. (minimum, maximum, mean, standard deviations). Reverse any items which need reversing for each scale. To do this will need to made new variables within SPSS, keep the old ones as well.

Missing Values

It is important to know the pattern and amount of missing data. Use SPSS MVA (missing values analysis) to calculate the distribution of missing data in a dataset.

Checking for Normality of Data

Check for skewness and kurtosis. Specify 'histogram normal' to see a normal distribution over a frequency histogram. Create box and whisker plots to see the distribution of the data. It is important to look at the median and the interquartile range of the data.

Outliers

If we think that a data point is an outlier report this when writing the results section.

Table 7
Calculating Scale Totals

Measure	How to calculate scale total	How to calculate scale total with missing data
Beck Depression Inventory-II	Sum of individual items No reversed items	If 10% or less of the data is missing (2 or less items) then impute the mean of the other values into the missing items. Do not calculate if more than 2 items missing.
Self-Compassion Scale	Sum of items. Self-Kindness Items: 5, 12, 19, 23, 26 Self-Judgment Items: 1, 8, 11, 16, 21 (all reversed). Common Humanity Items: 3, 7, 10, 15 Isolation Items: 4, 13, 18, 25 (all reversed). Mindfulness Items: 9, 14, 17, 22 Over-identified Items: 2, 6, 20, 24 (all reversed). Reverse items: 1,2,4,6,8,11,13,16,18,20,21,24,25, 30, 31, 32, 33 For missing items: To calculate a mean total score, reverse the negative sub-scale scores (if not already reversed): self-judgment, isolation and over-identification and then compute a total mean. Sub-scale scores: Calculated by calculating the sum of sub-scale scores (do not reverse for subscale scores). Input the relevant missing values if applicable. Sum total: Sum of all sub-scales (including the reverse items)	If 10% or less of the data is missing (3 items) from the total score then impute the mean of the other values, into the missing items. Do not calculate if more than 3 items missing.

(table continues)

Measure	How to calculate scale total	How to calculate scale total with missing data
Coding of Attachment Related Parenting	Sensitive responding: Missing Count	Sensitive responding total:
Attribution Measure	Sensitive responding: Total	Do not calculate if any scenario is missing a code
	Attribution measure missing and total count for:	Attribution measure totals:
	Valence	Calculate domains separately. No overall total.
	Attribution	
	Feeling	Do not calculate a domain if any scenario is missing a code.
	Responding	

Appendix N

Scatterplots

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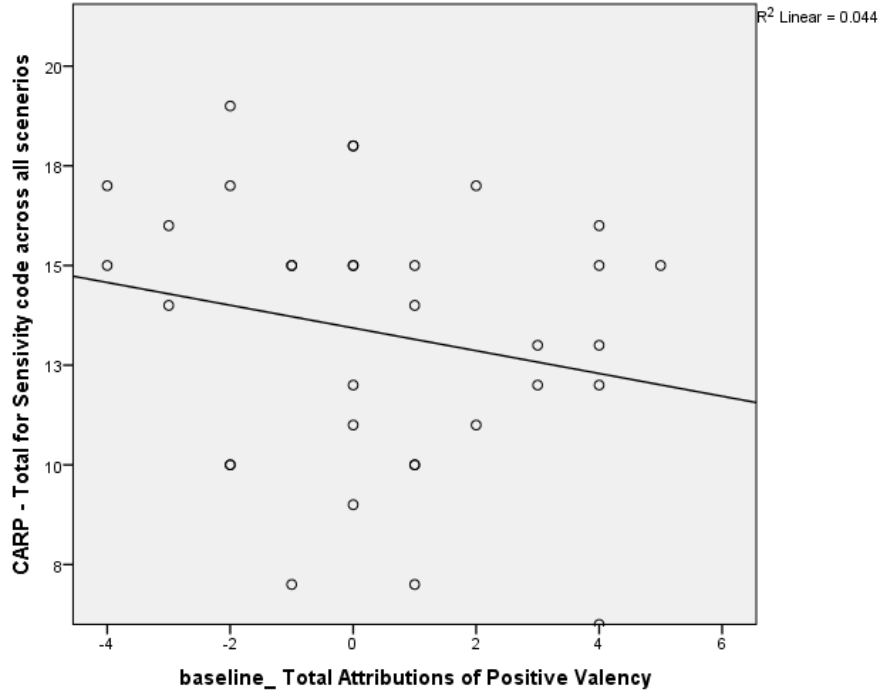
Attribution of Total Positive and Negative Valence and Sensitivity_____p.114

Attribution of Total Positive and Negative Valence and Self-Compassion_____p.118

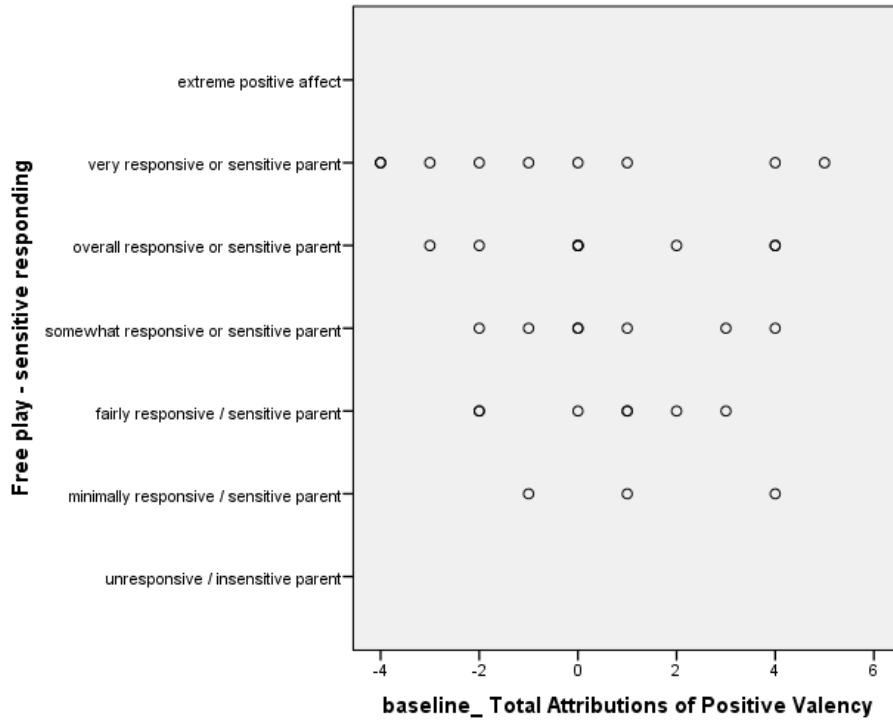
Parent Sensitivity and Self-Compassion_____p. 125

Scatterplots for Attribution of Total Positive and Negative Valence and Sensitivity

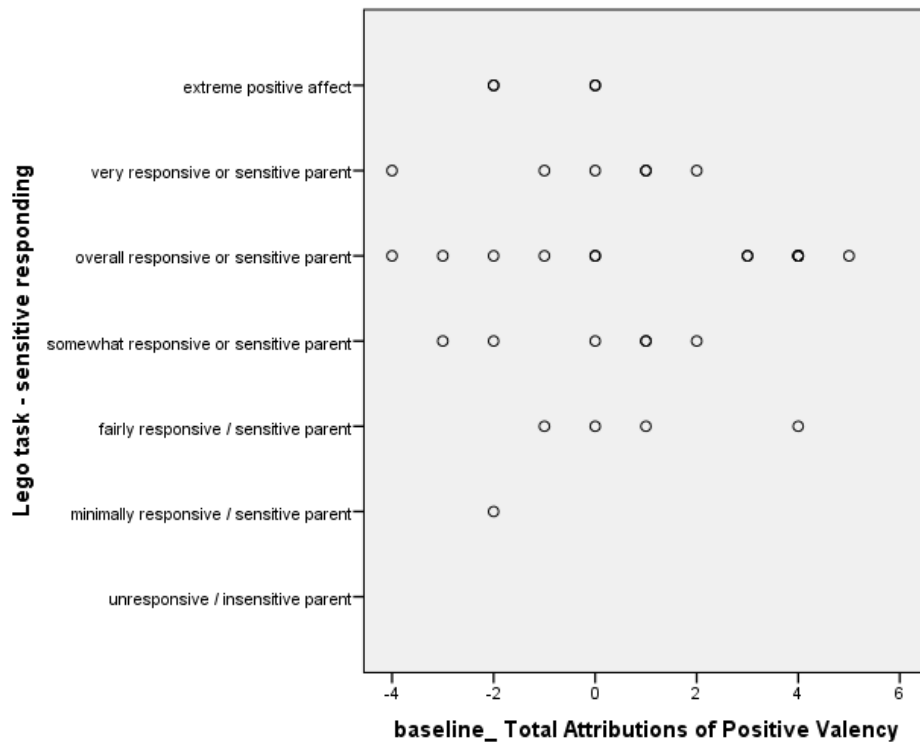
A Scatterplot of Attributions of Positive Valence and Total Sensitivity at Baseline



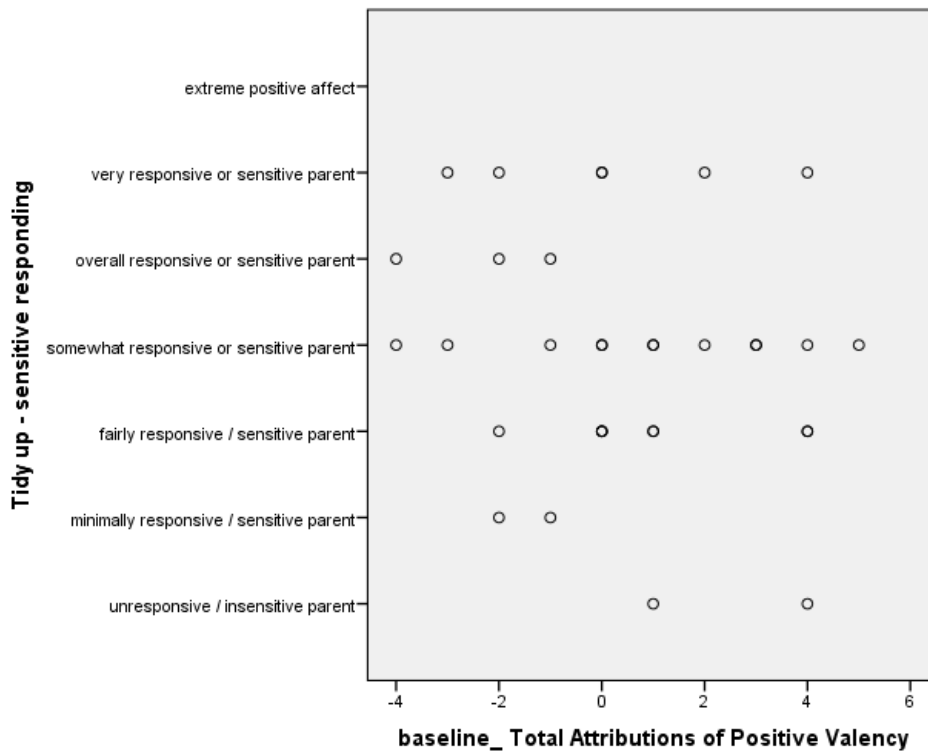
A Scatterplot of Attributions of Positive Valence and Free Play at Baseline



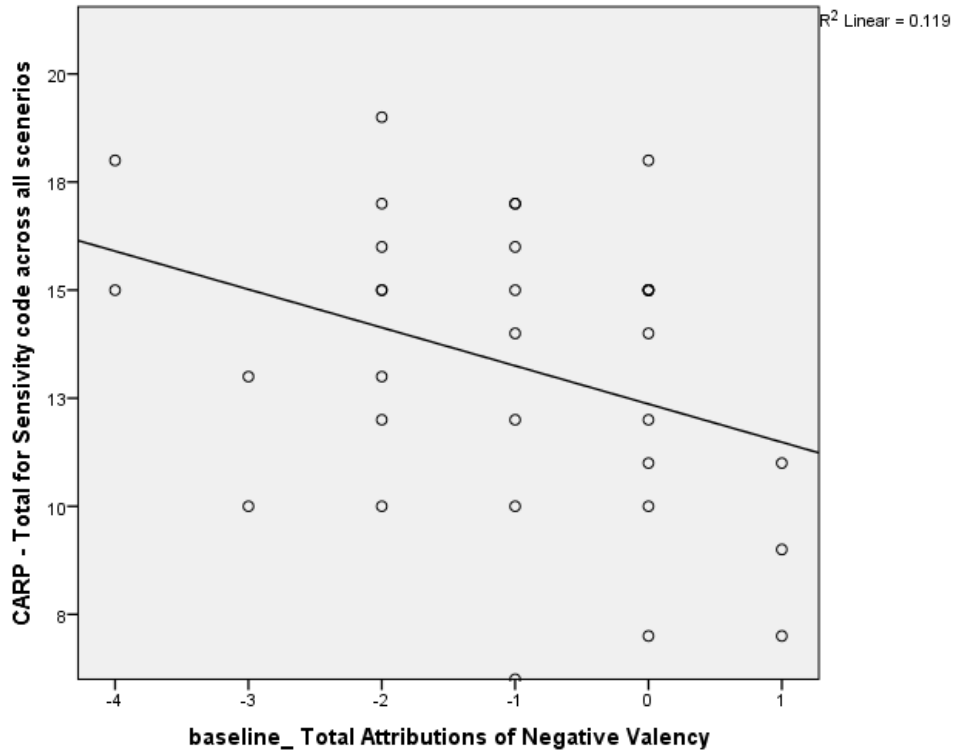
A Scatterplot of Attributions of Positive Valence and the Lego Task at Baseline



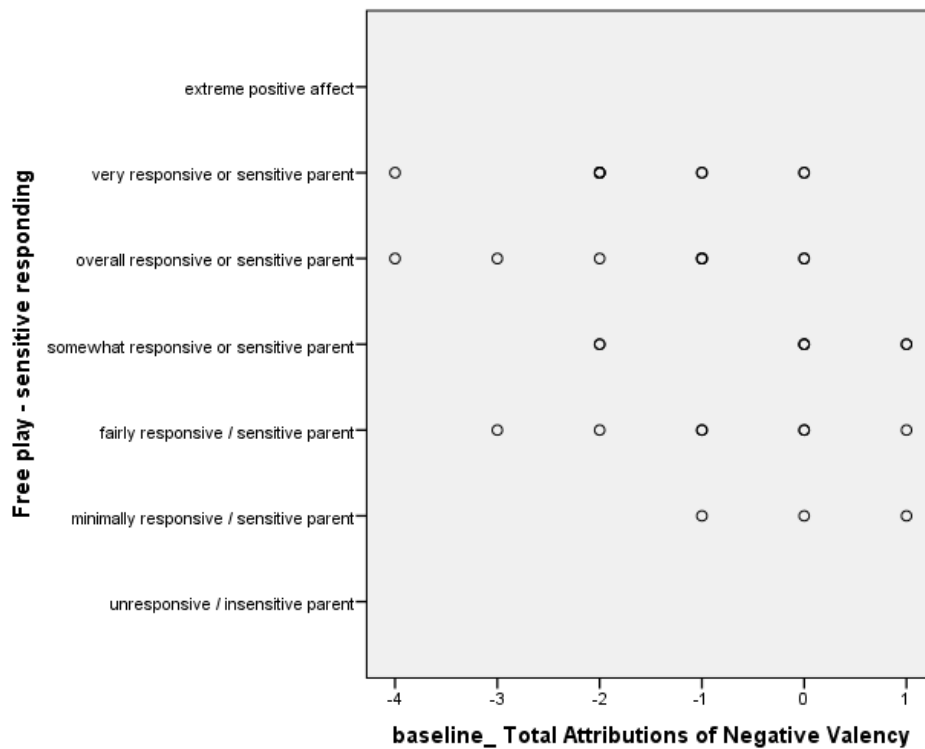
A Scatterplot of Attributions of Positive Valence and the Tidy Up Task at Baseline



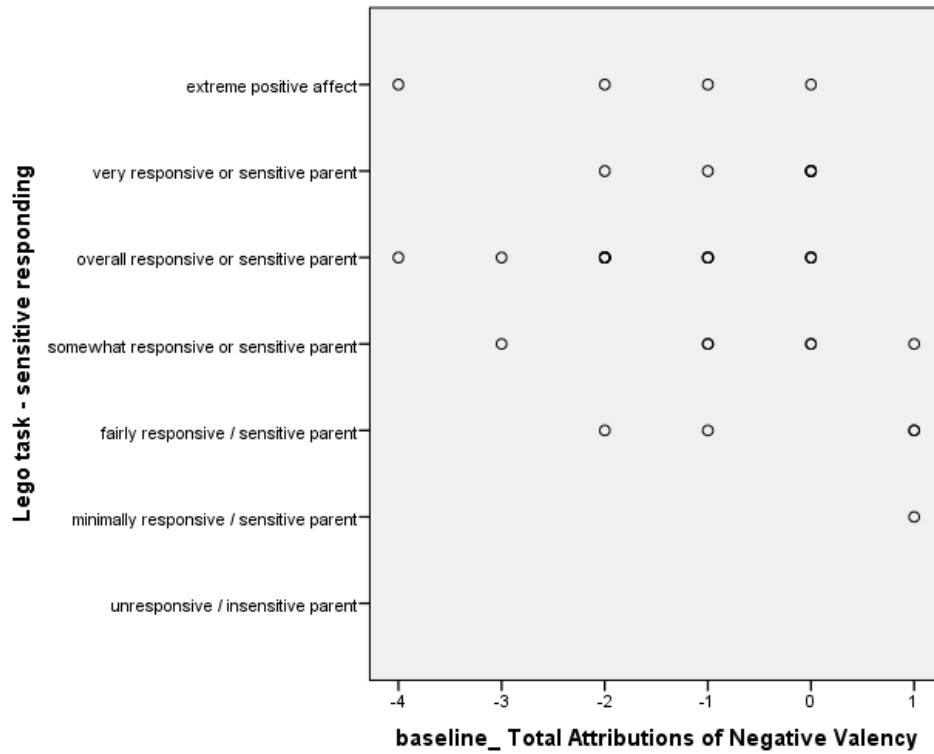
A Scatterplot of Attributions of Negative Valence and Total Sensitivity at Baseline



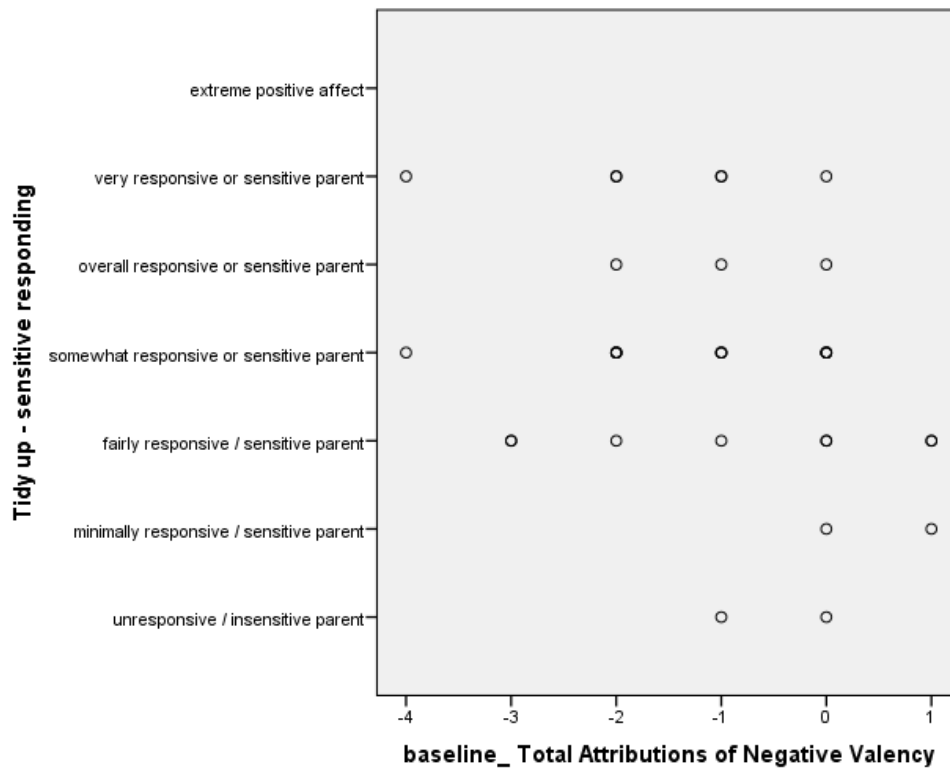
A Scatterplot of Attributions of Negative Valence and Free Play at Baseline



A Scatterplot of Attributions of Negative Valence and the Lego Task at Baseline

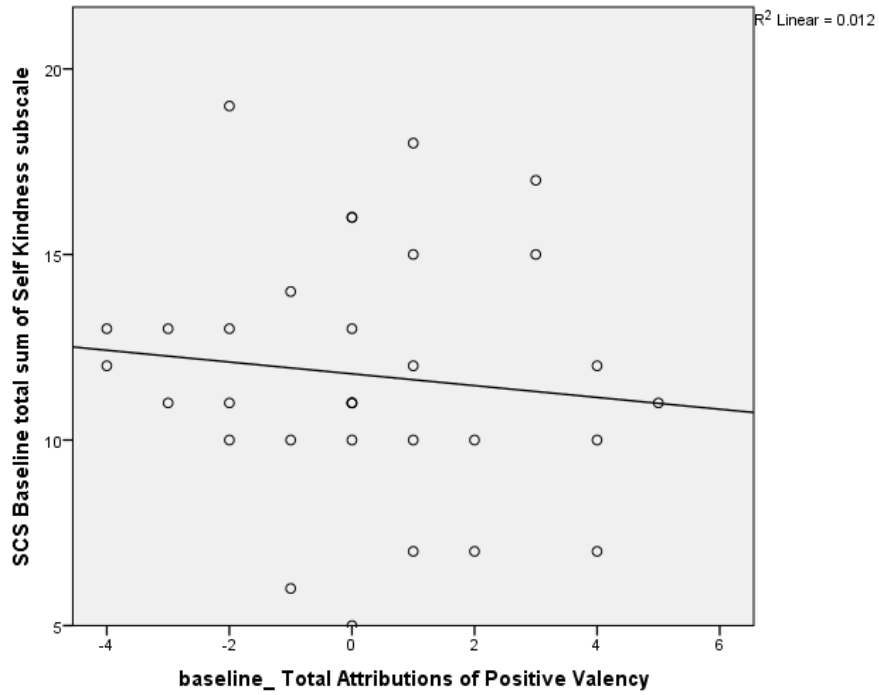


A Scatterplot of Attributions of Negative Valence and the Tidy Up Task at Baseline

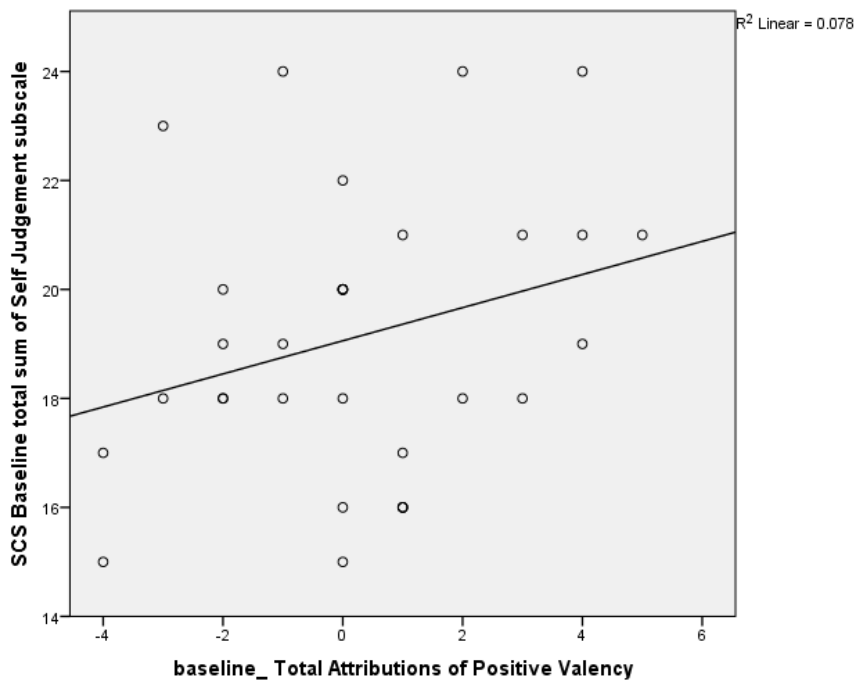


Scatterplots for Attribution of Total Positive and Negative Valence and Self-Compassion

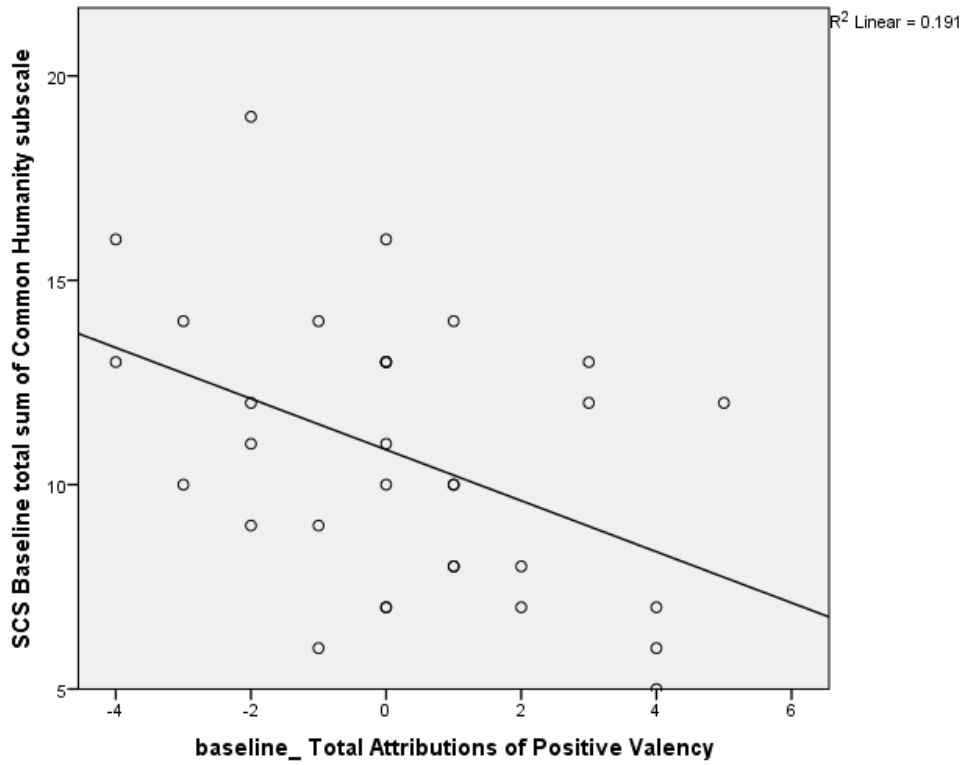
A Scatterplot of Attributions of Positive Valence and Self-Kindness at Baseline



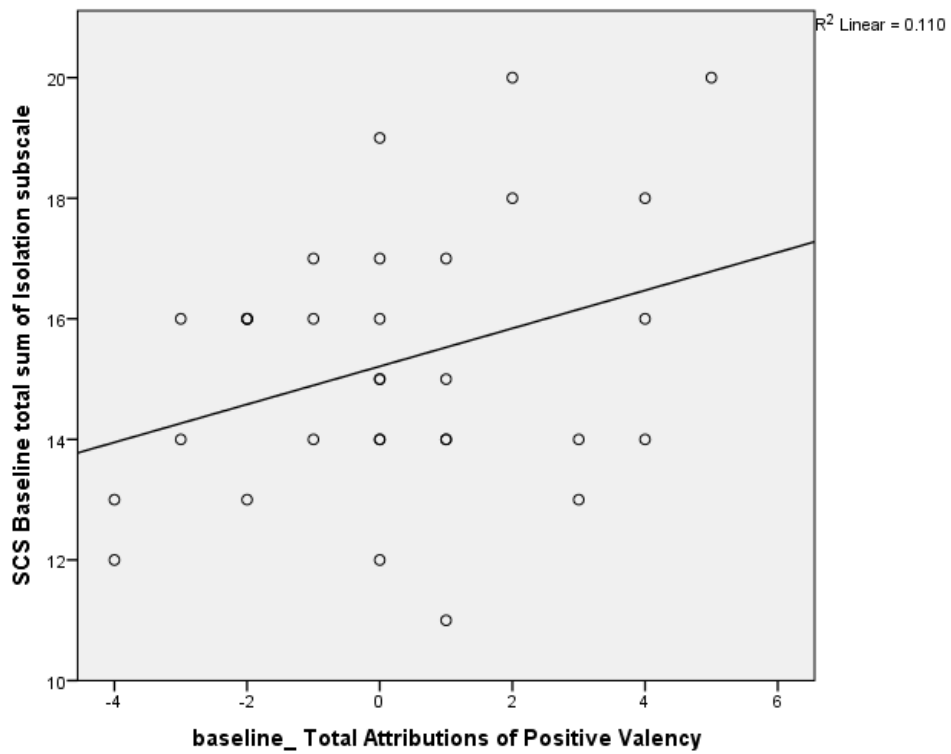
A Scatterplot of Attributions of Positive Valence and Self-Judgement at Baseline



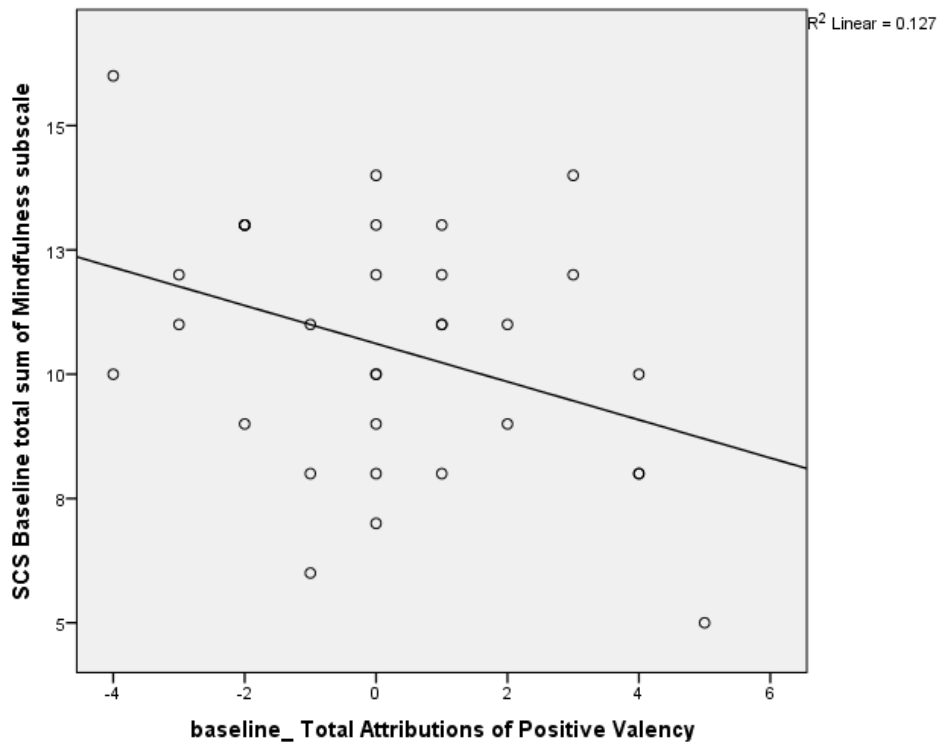
A Scatterplot of Attributions of Positive Valence and Common Humanity at Baseline



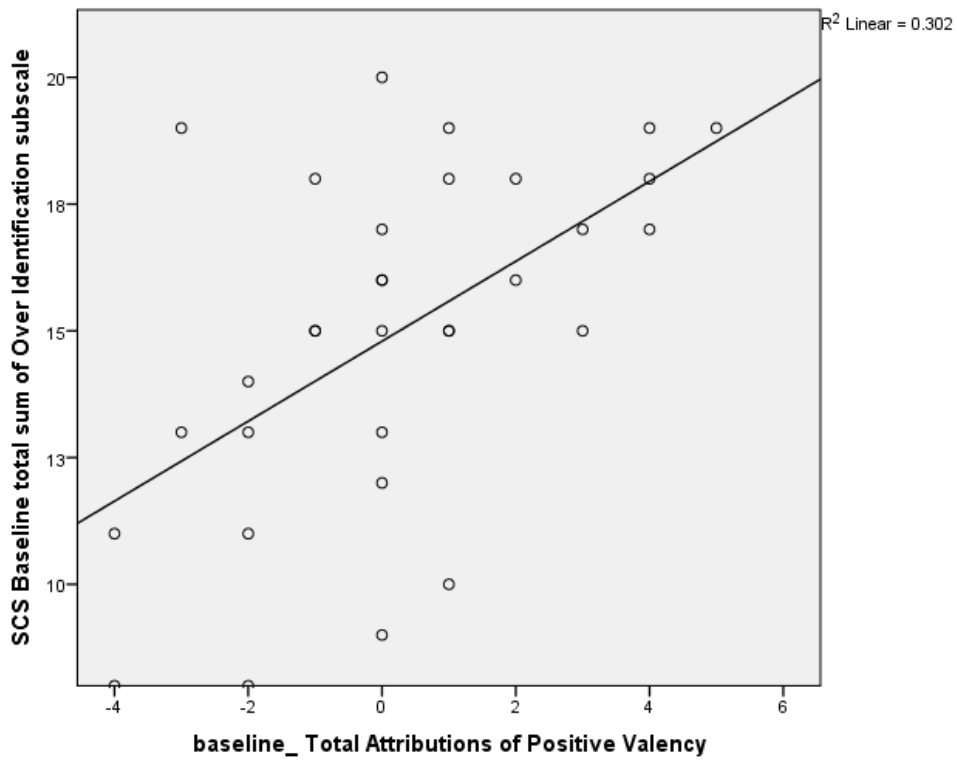
A Scatterplot of Attributions of Positive Valence and Isolation at Baseline



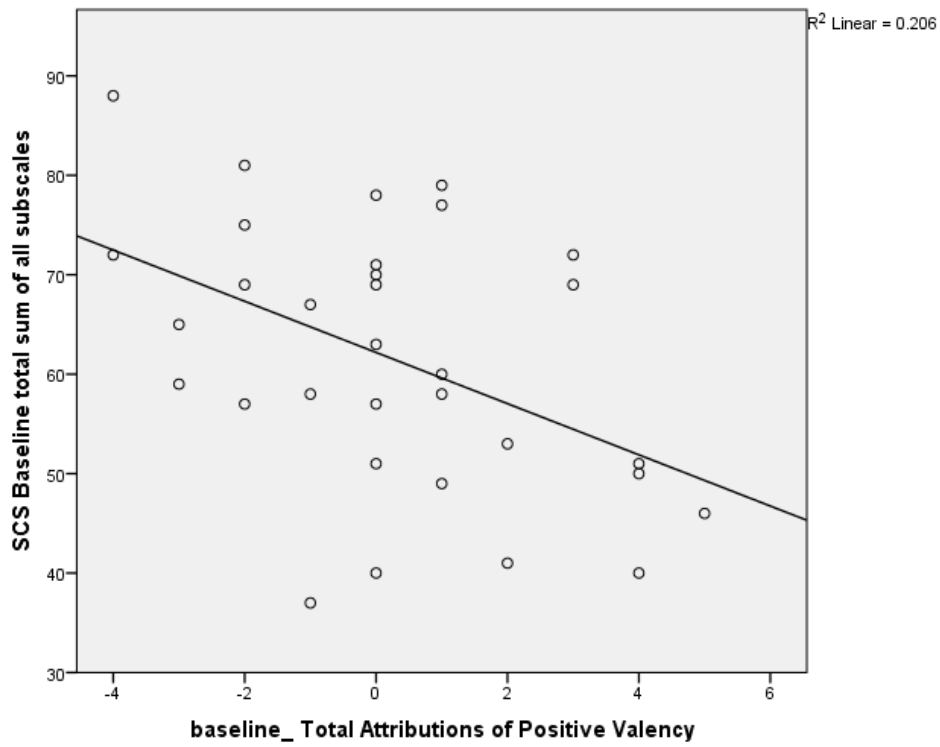
A Scatterplot of Attributions of Positive Valence and Mindfulness at Baseline



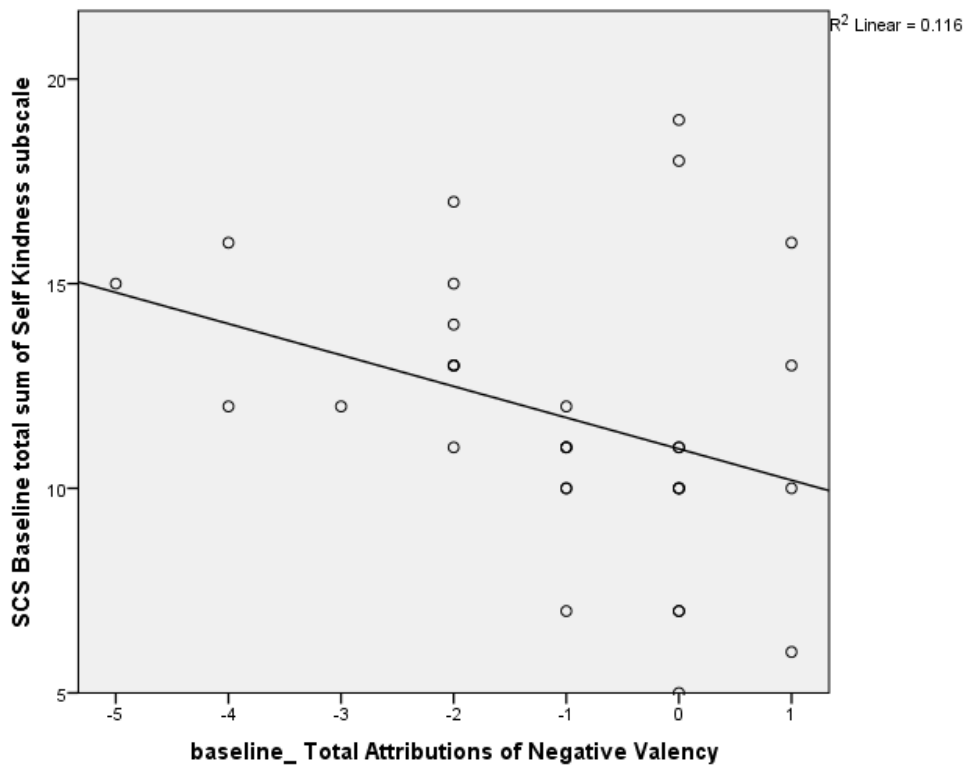
A Scatterplot of Attributions of Positive Valence and Over-Identification at Baseline



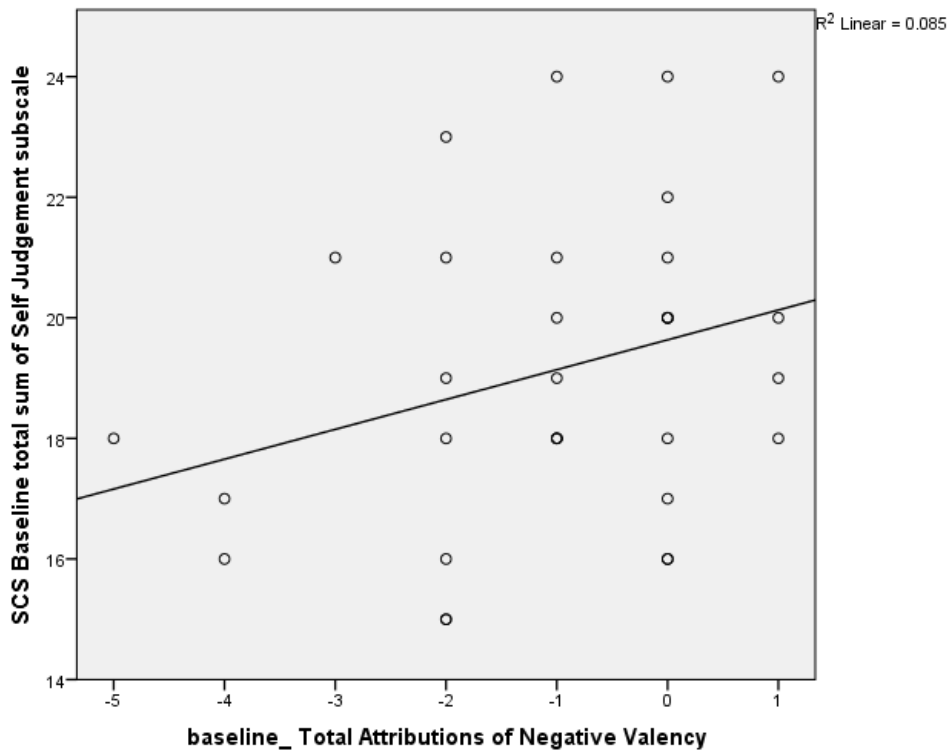
A Scatterplot of Attributions of Positive Valence and Total Self-Compassion at Baseline



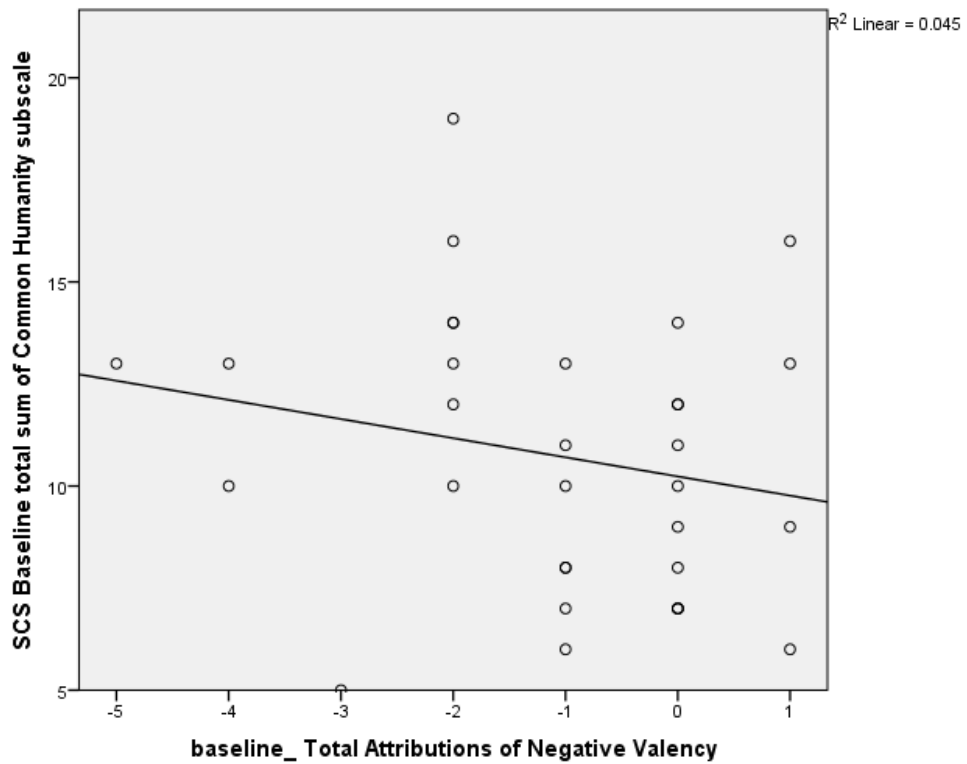
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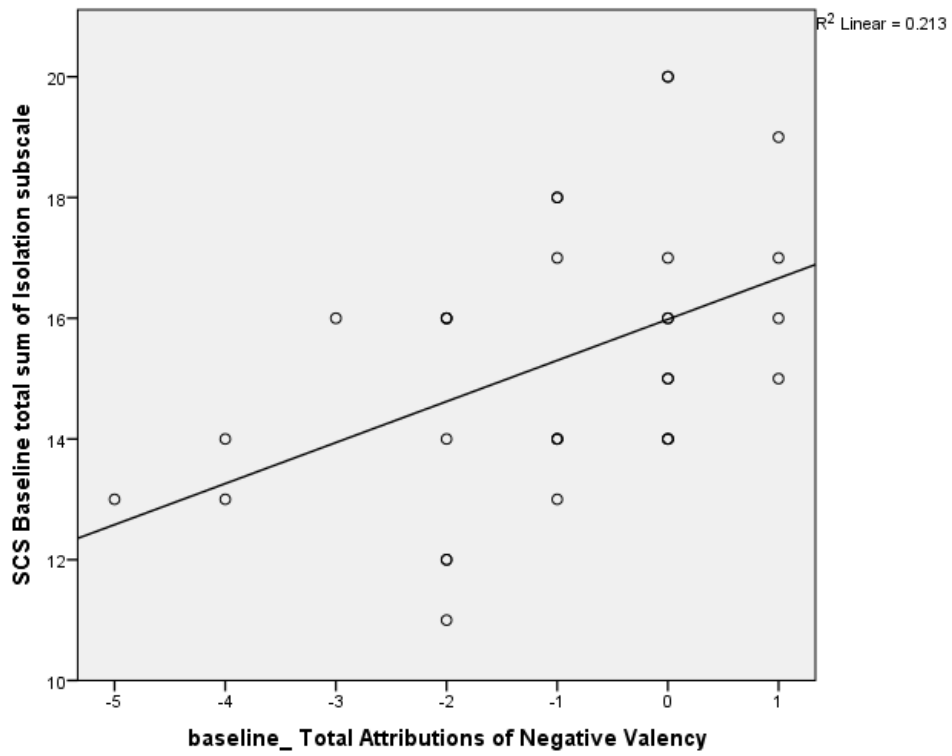
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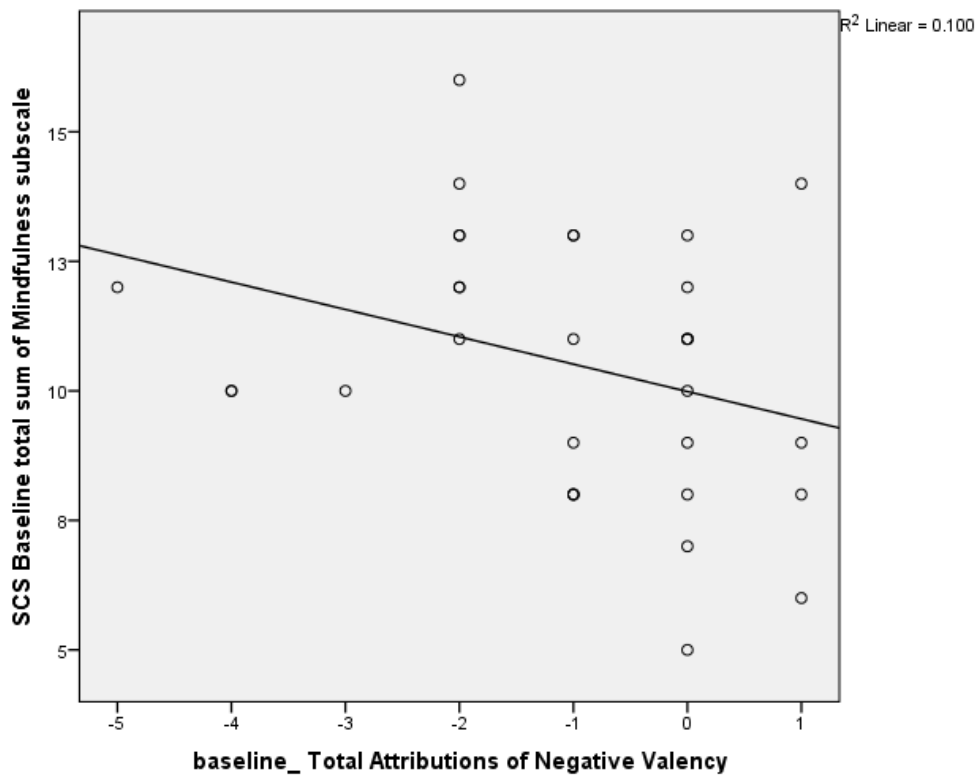
A Scatterplot of Attributions of Negative Valence and Common Humanity at Baseline



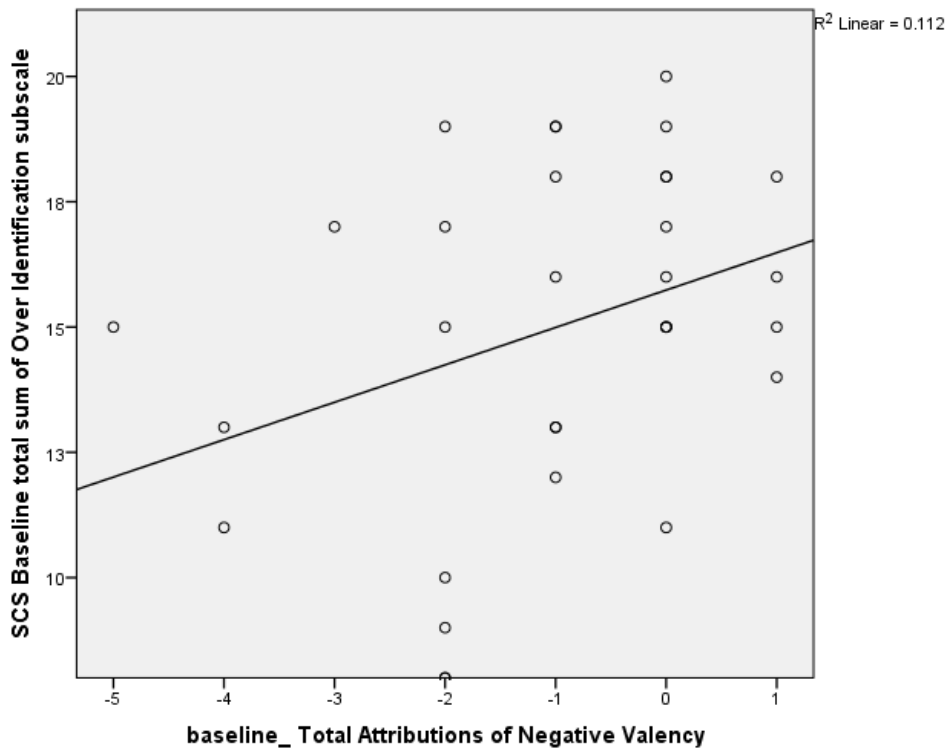
A Scatterplot of Attributions of Negative Valence and Isolation at Baseline



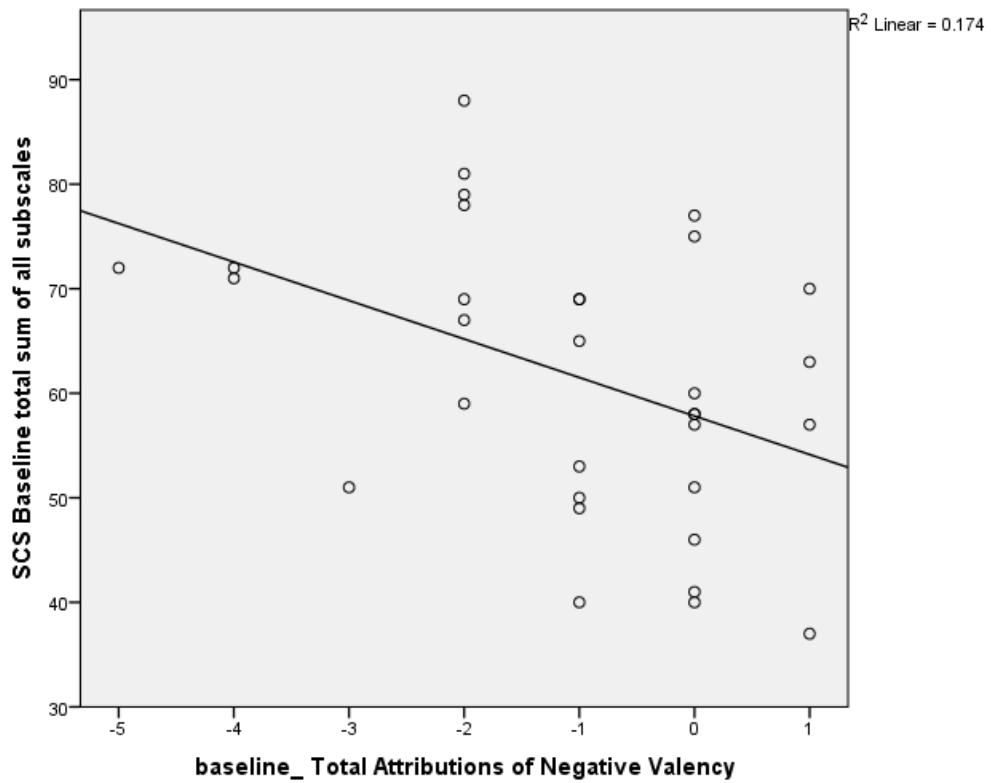
A Scatterplot of Attributions of Negative Valence and Mindfulness at Baseline



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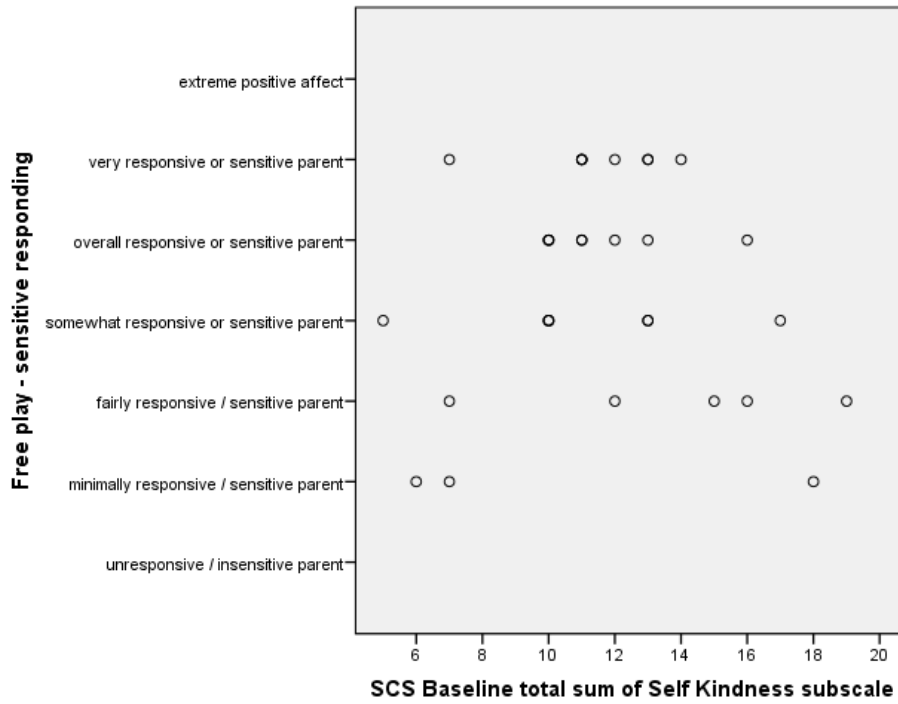


A Scatterplot of Attributions of Negative Valence and Total Self-Compassion at Baseline

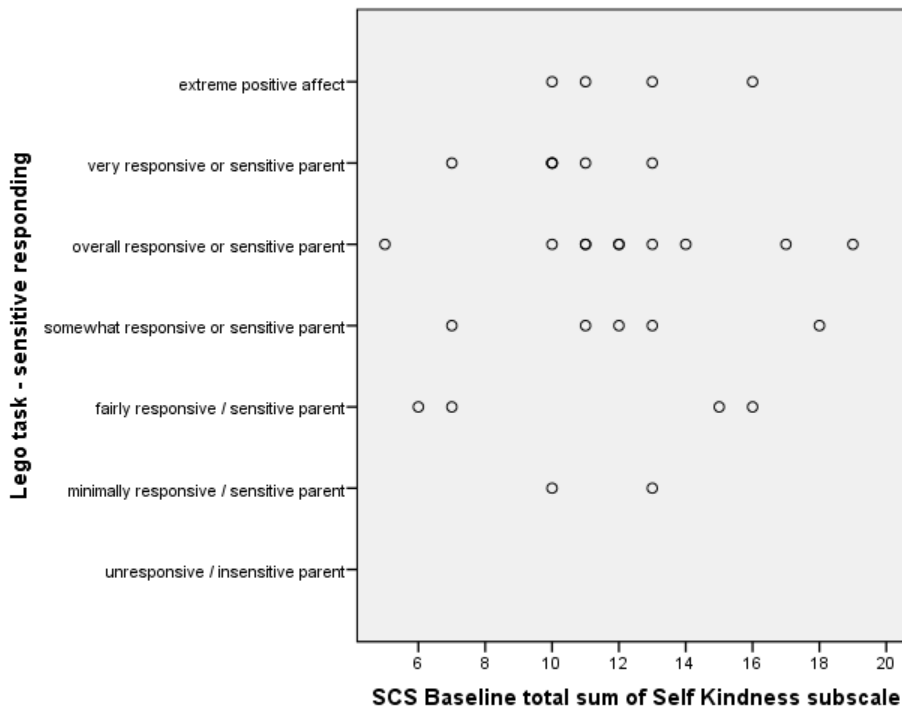


Scatterplots for Parent Sensitivity and Self-Compassion

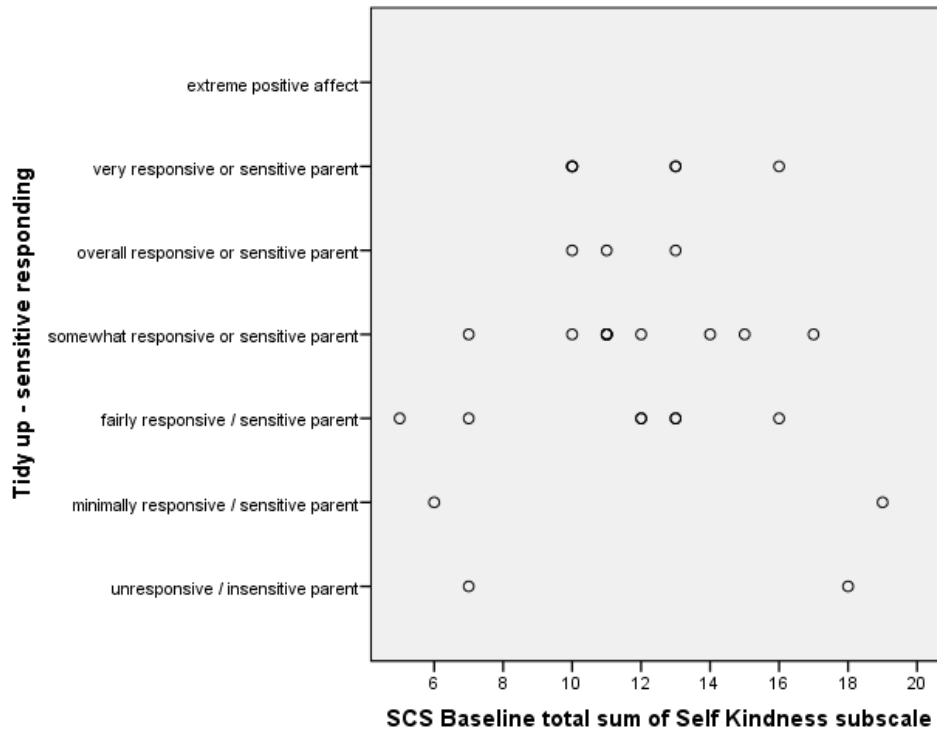
A Scatterplot of Parent Sensitivity during Free Play and Self-Kindness at Baseline



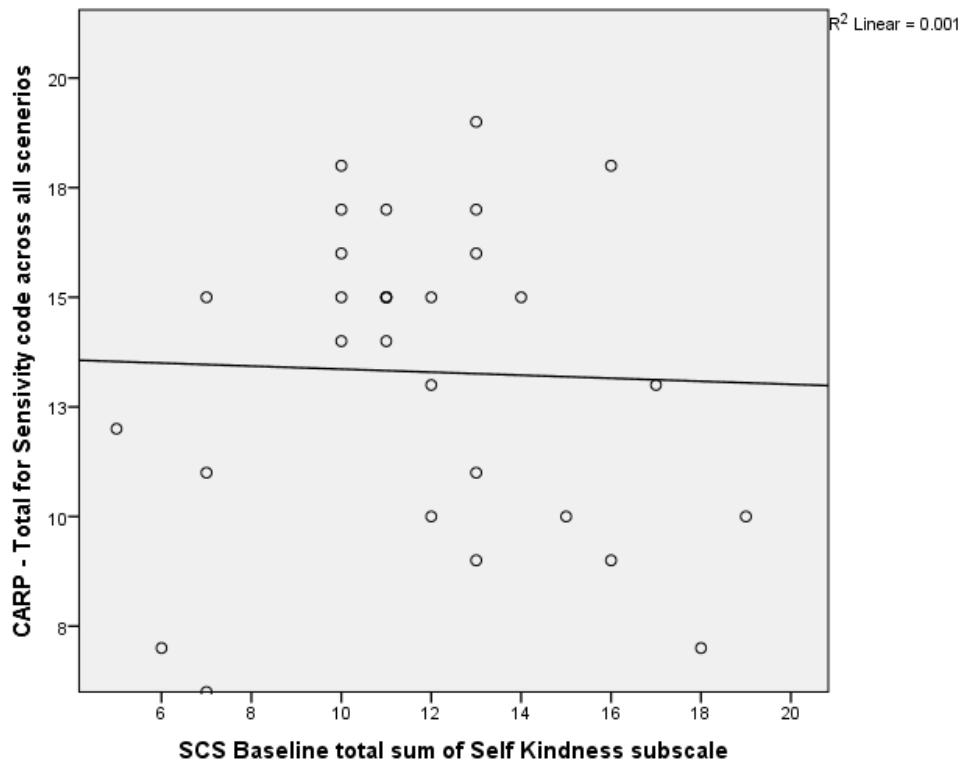
A Scatterplot of Parent Sensitivity during the Lego task and Self-Kindness at Baseline



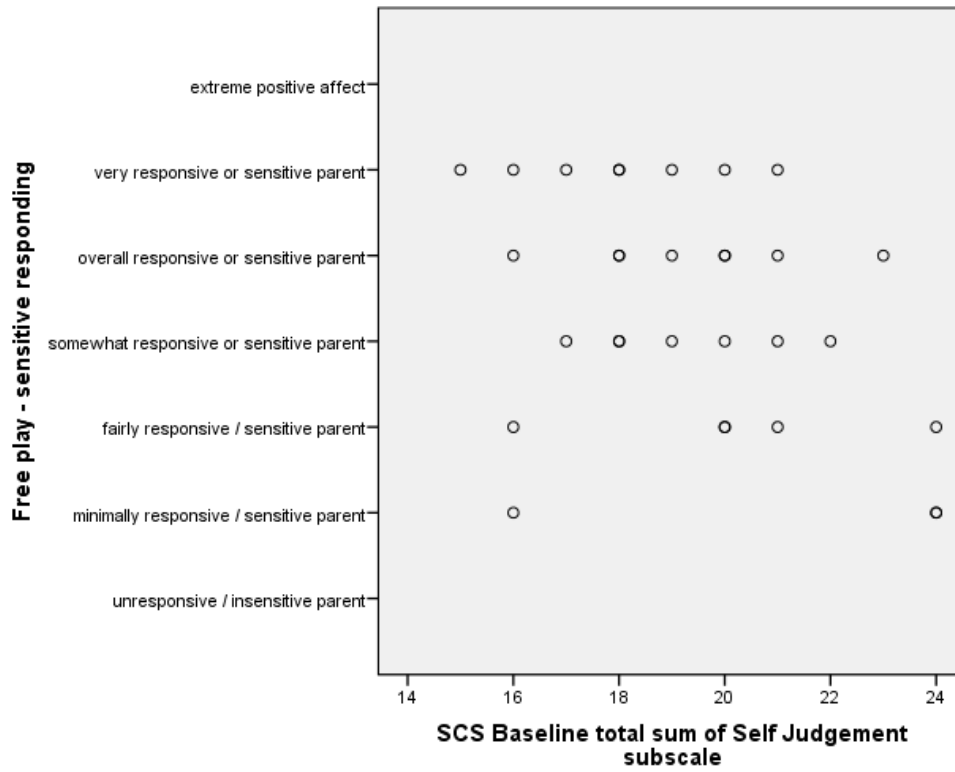
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Self-Kindness at Baseline



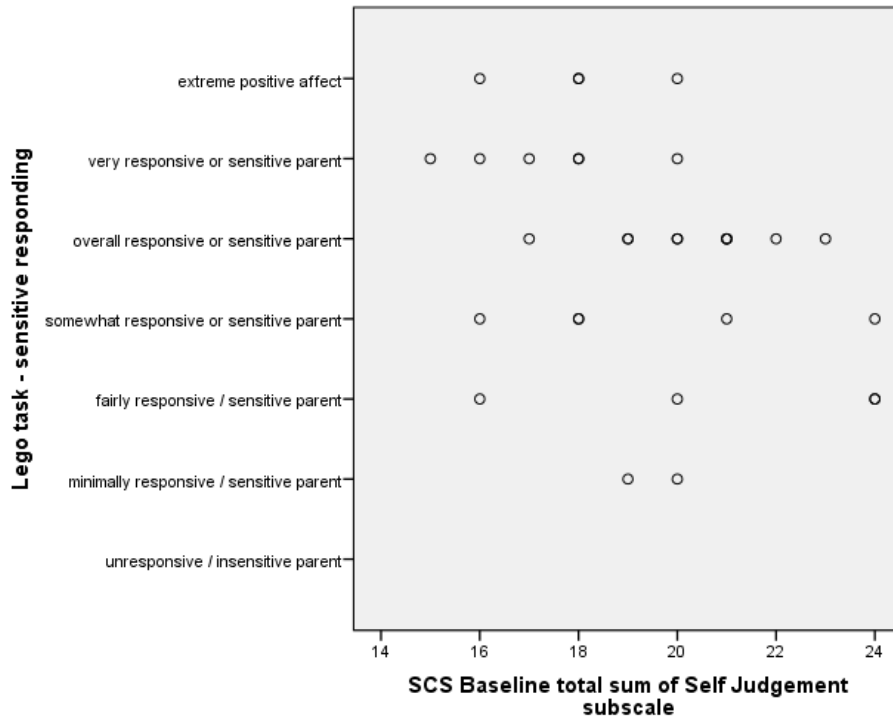
A Scatterplot of Parent Sensitivity Total Score and Self-Kindness at Baseline



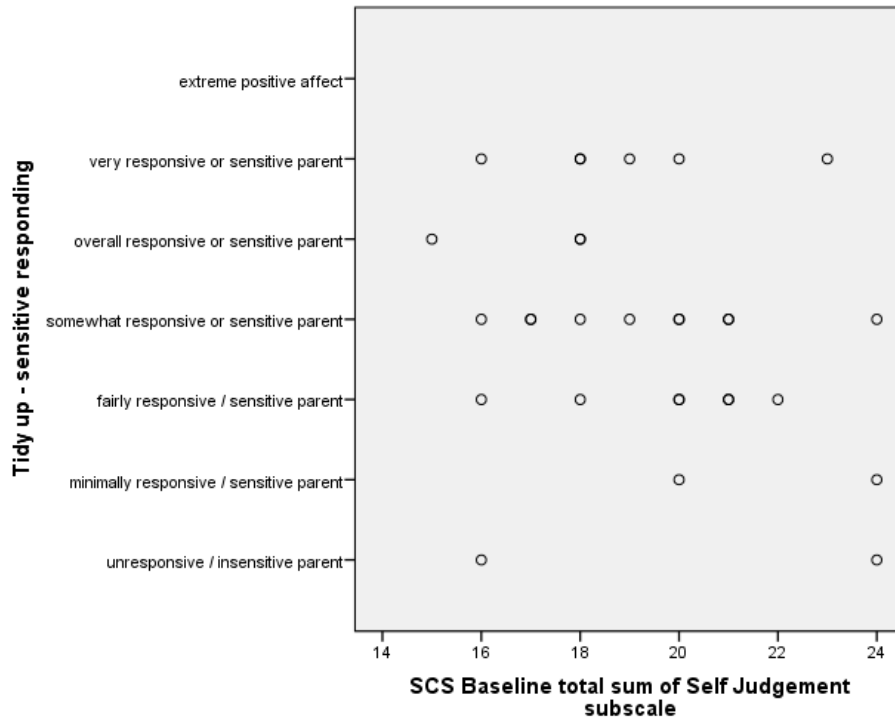
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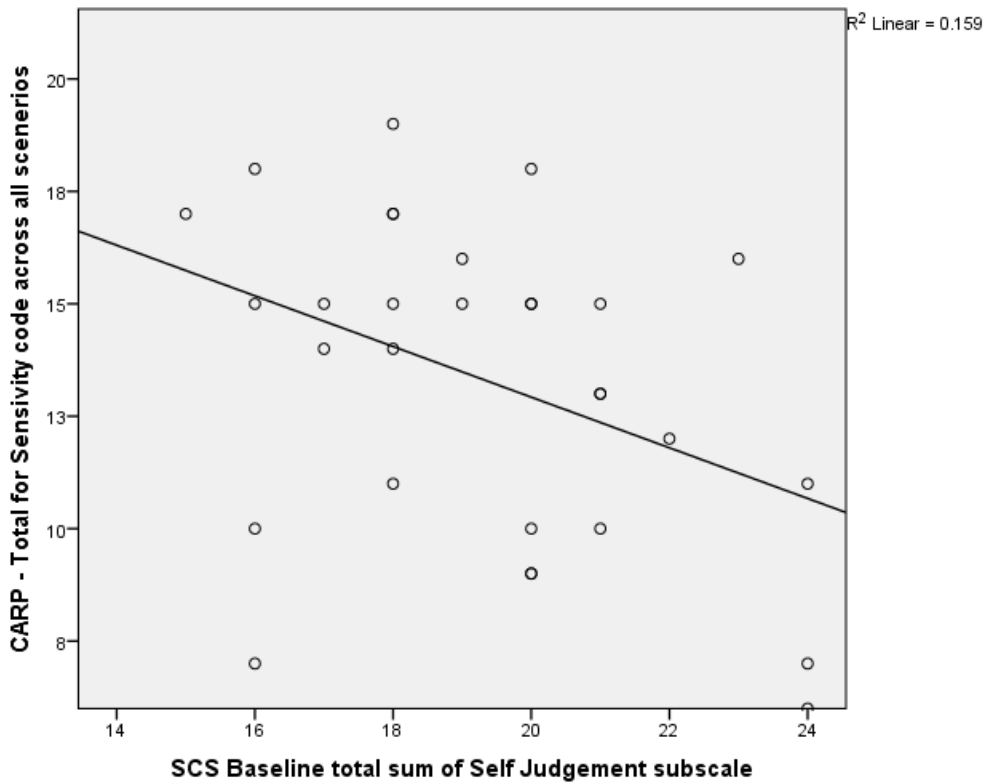
A Scatterplot of Parent Sensitivity during the Lego task and Self-Judgement at Baseline



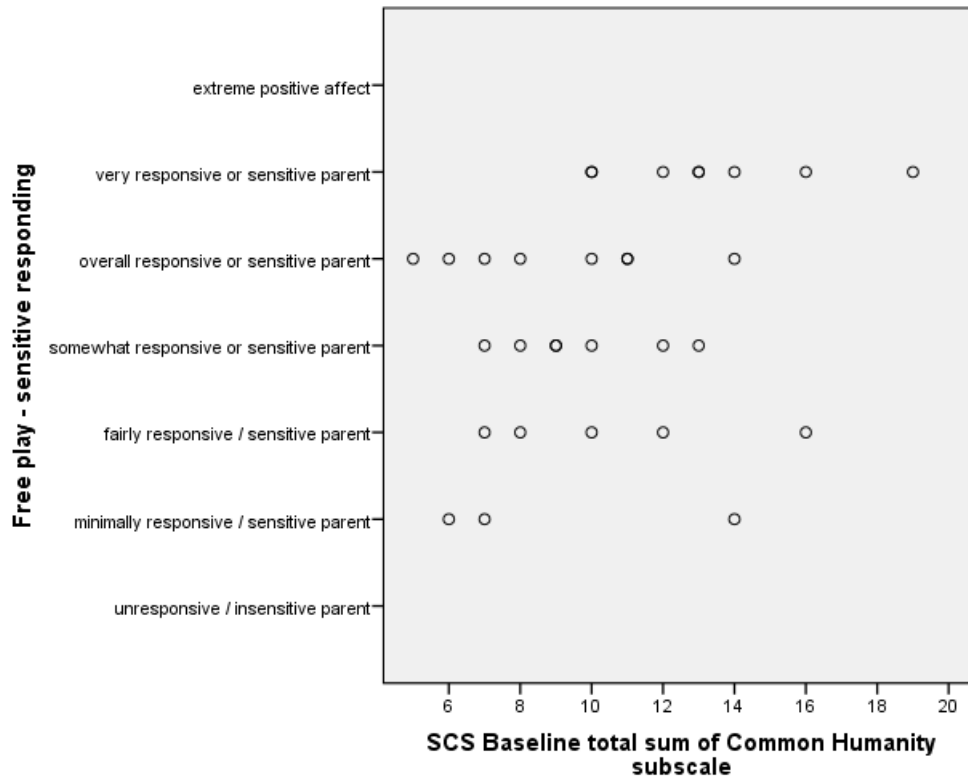
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Self-Judgement at Baseline



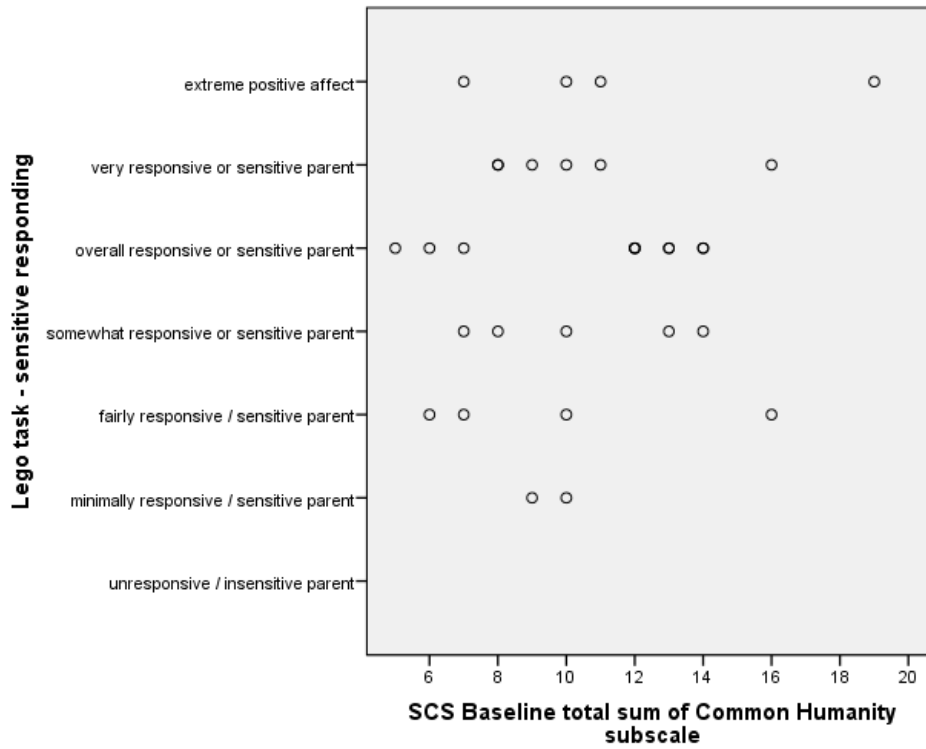
A Scatterplot of Parent Sensitivity Total Score and Self-Judgement at Baseline



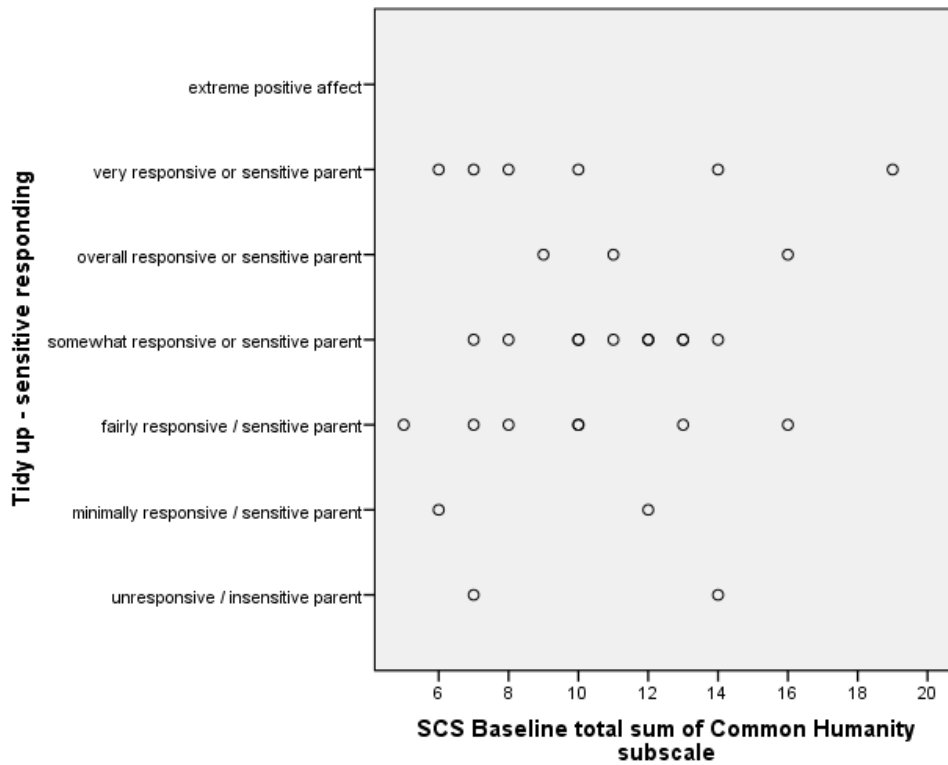
A Scatterplot of Parent Sensitivity during Free Play and Common Humanity at Baseline



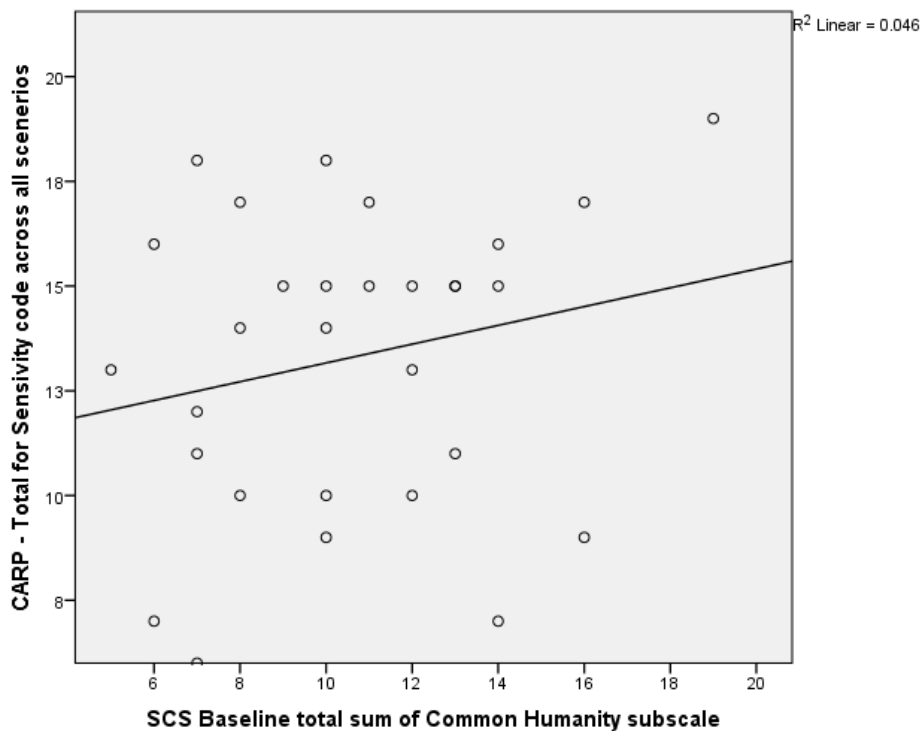
A Scatterplot of Parent Sensitivity during the Lego task and Common Humanity at Baseline



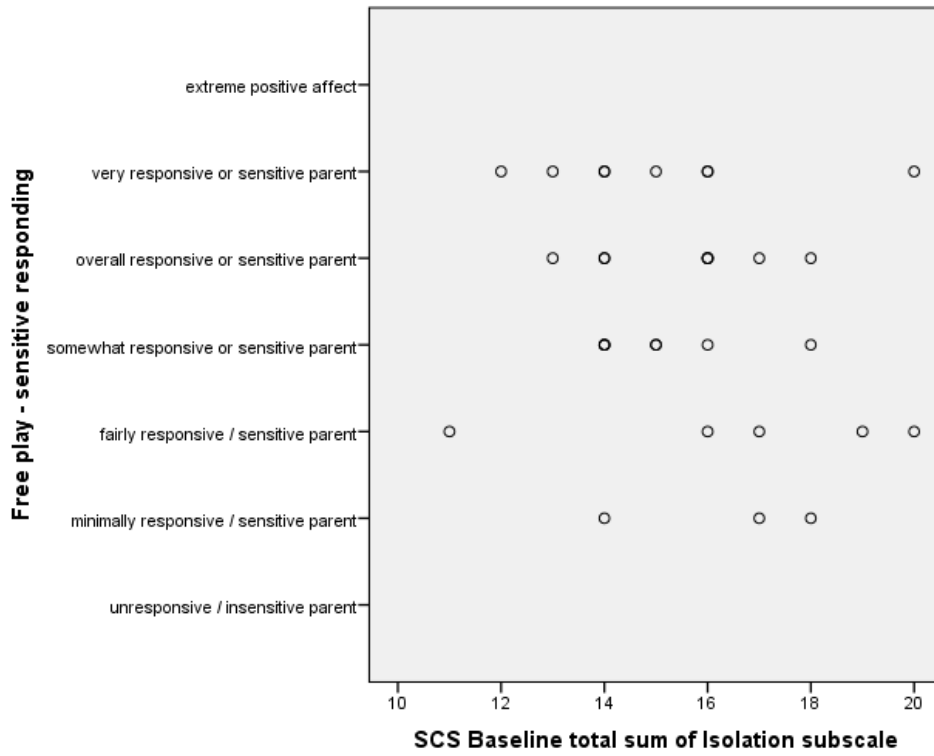
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Common Humanity at Baseline



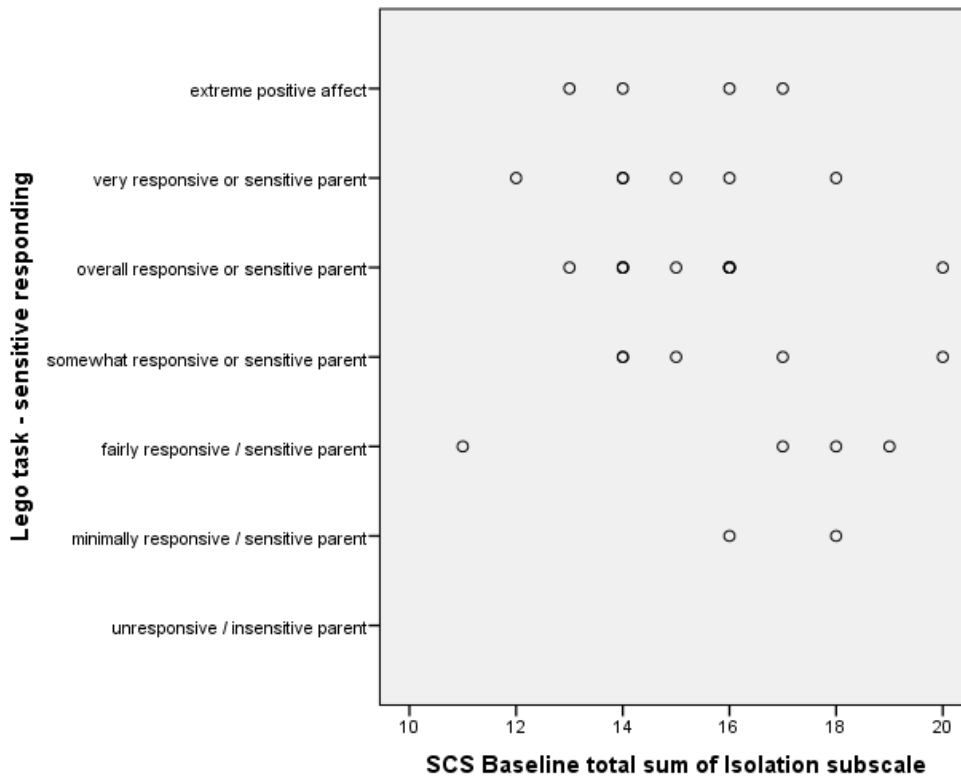
A Scatterplot of Parent Sensitivity Total Score and Common Humanity at Baseline



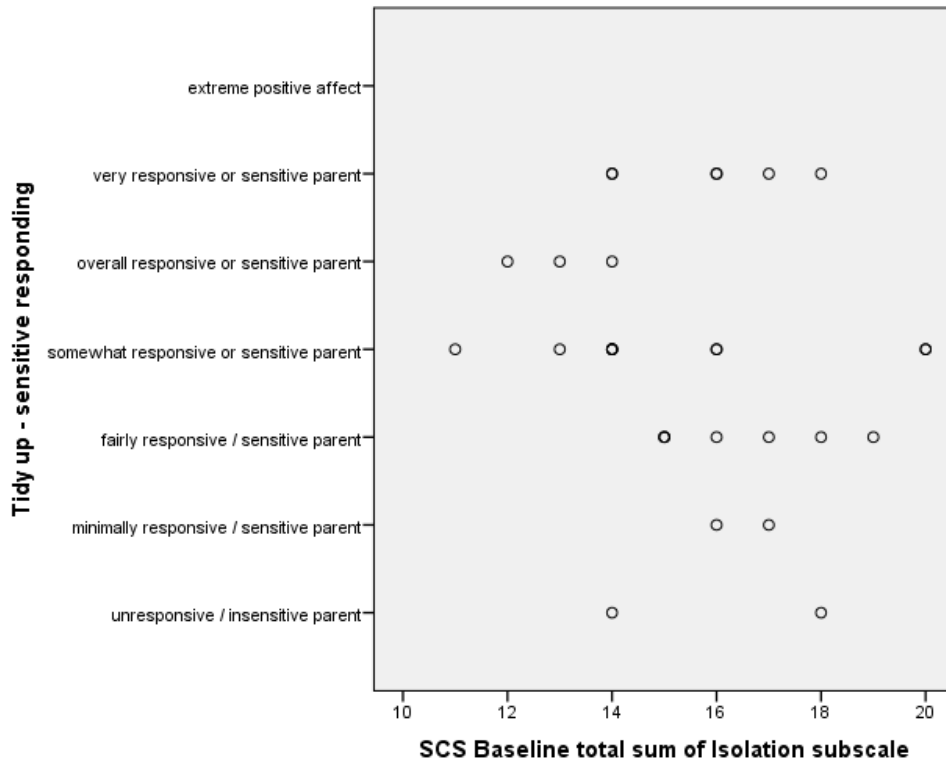
A Scatterplot of Parent Sensitivity during Free Play and Isolation at Baseline



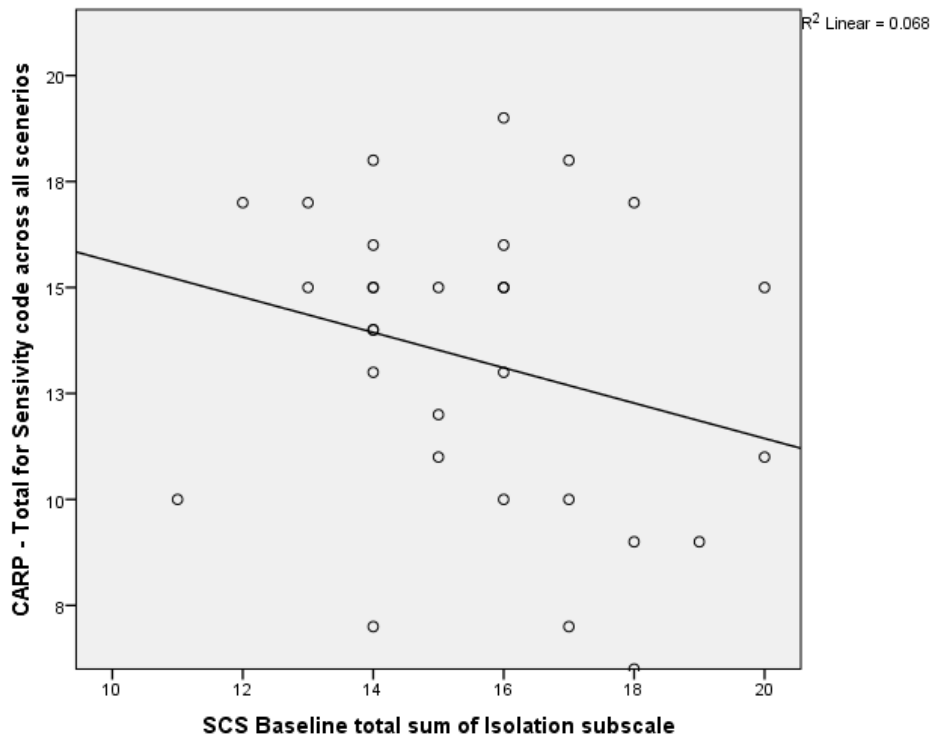
A Scatterplot of Parent Sensitivity during the Lego task and Isolation at Baseline



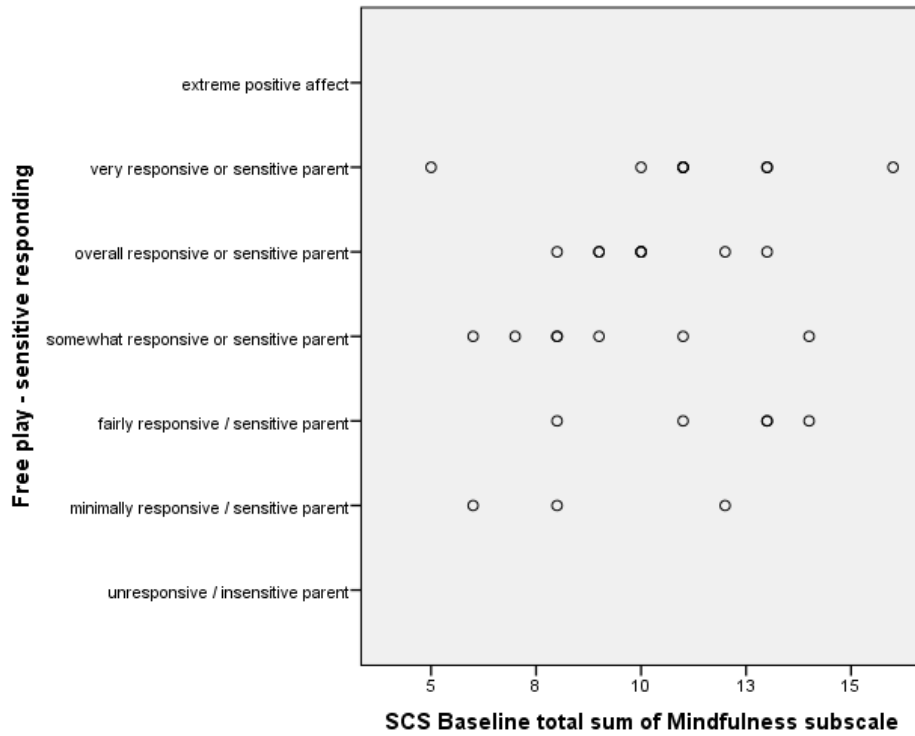
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Isolation at Baseline



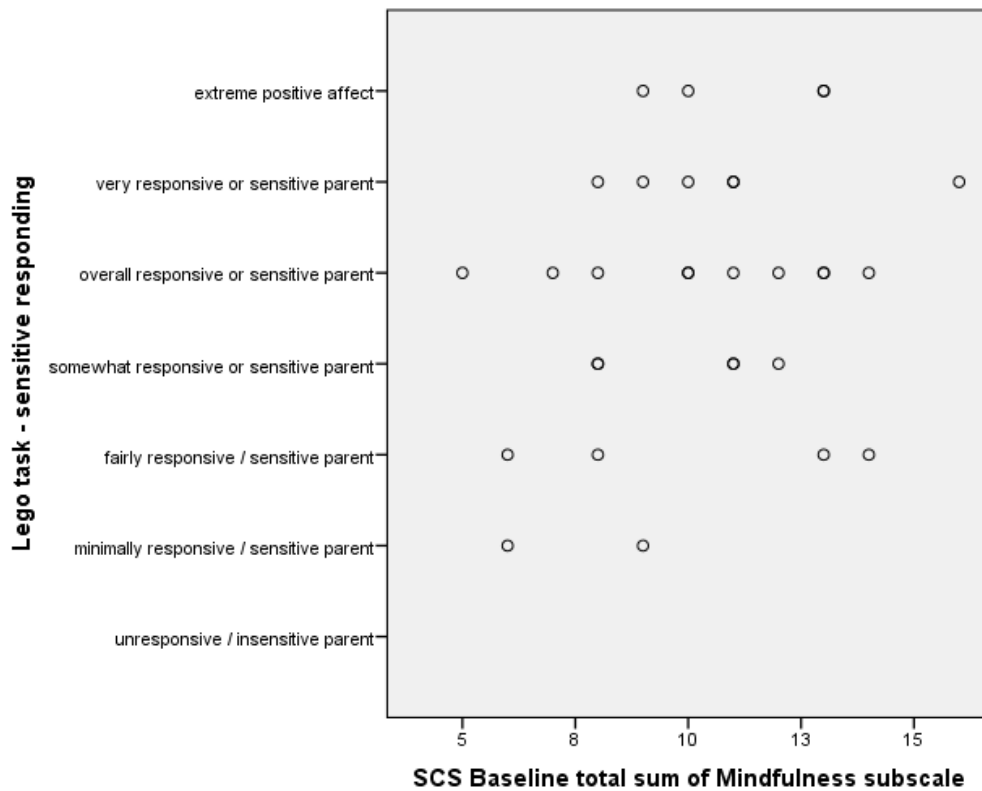
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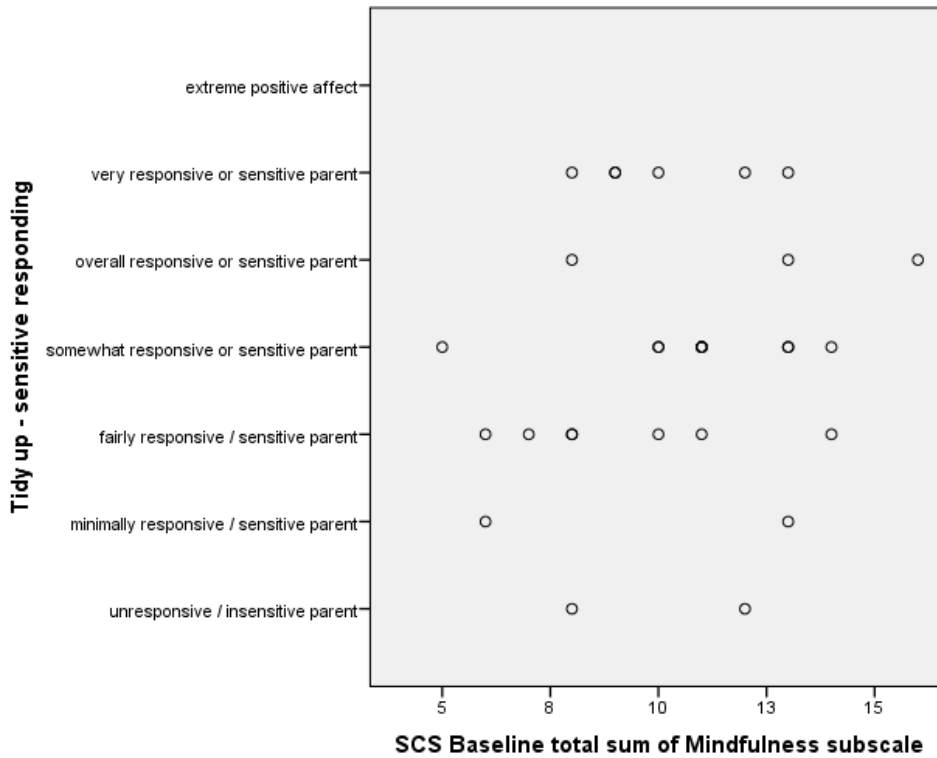
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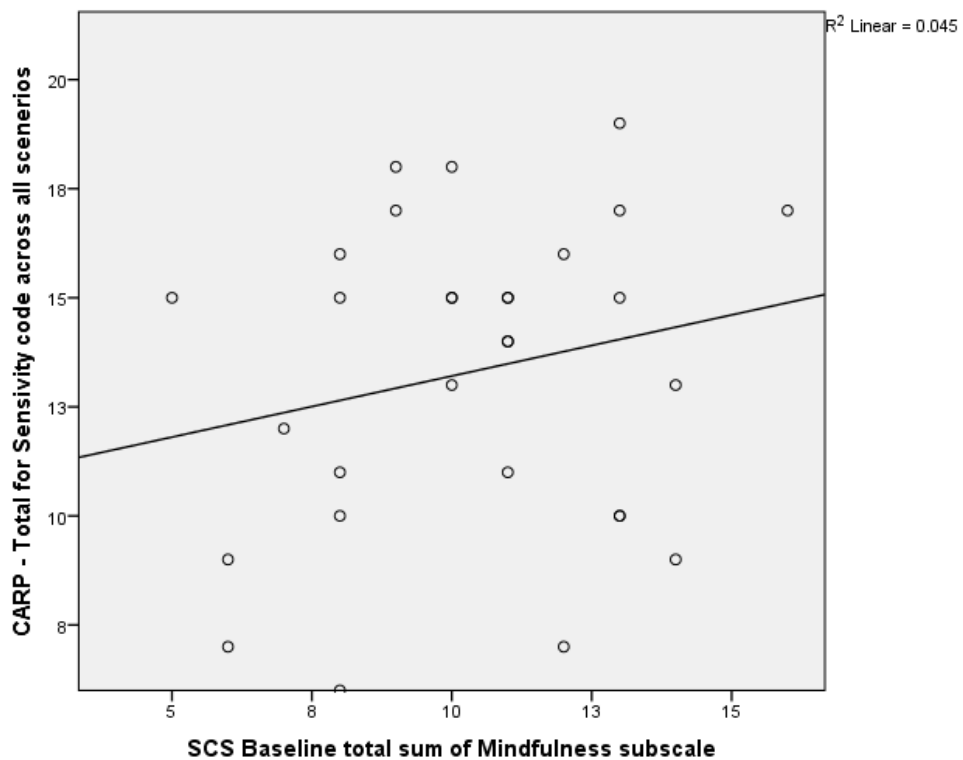
A Scatterplot of Parent Sensitivity during the Lego task and Mindfulness at Baseline



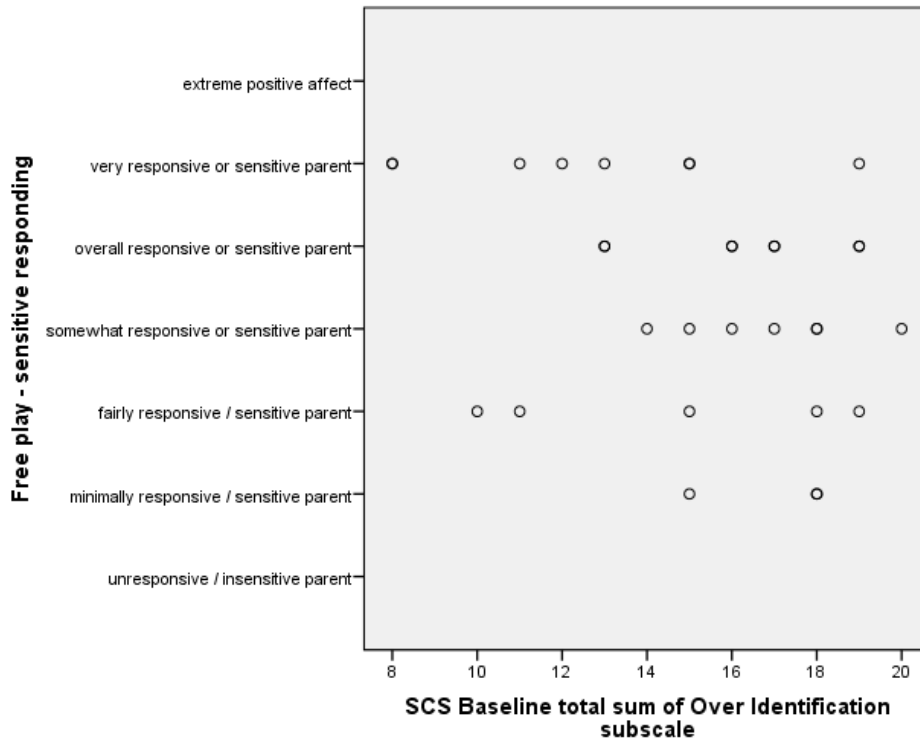
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Mindfulness at Baseline



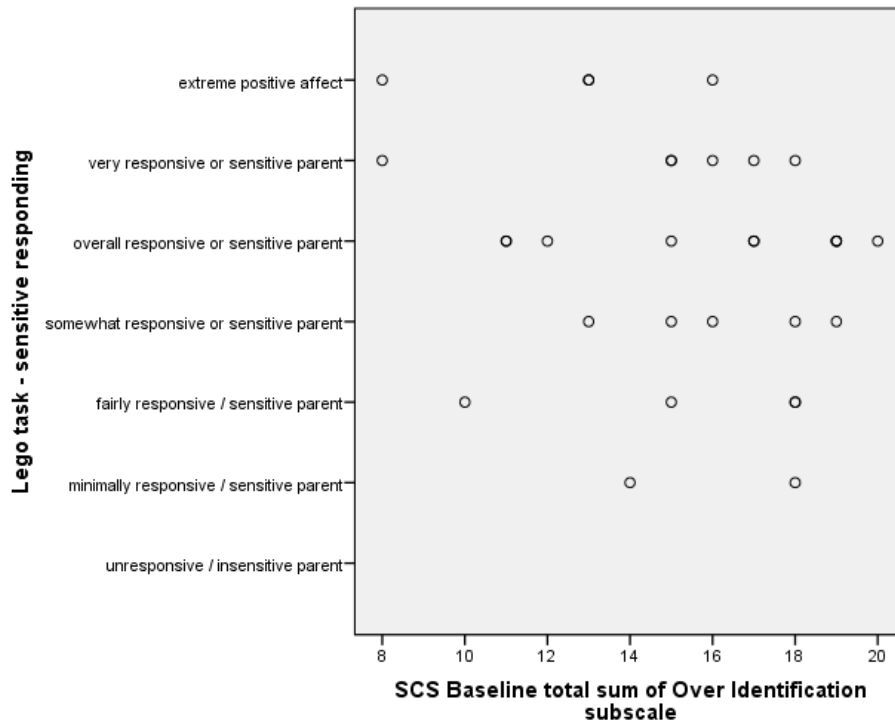
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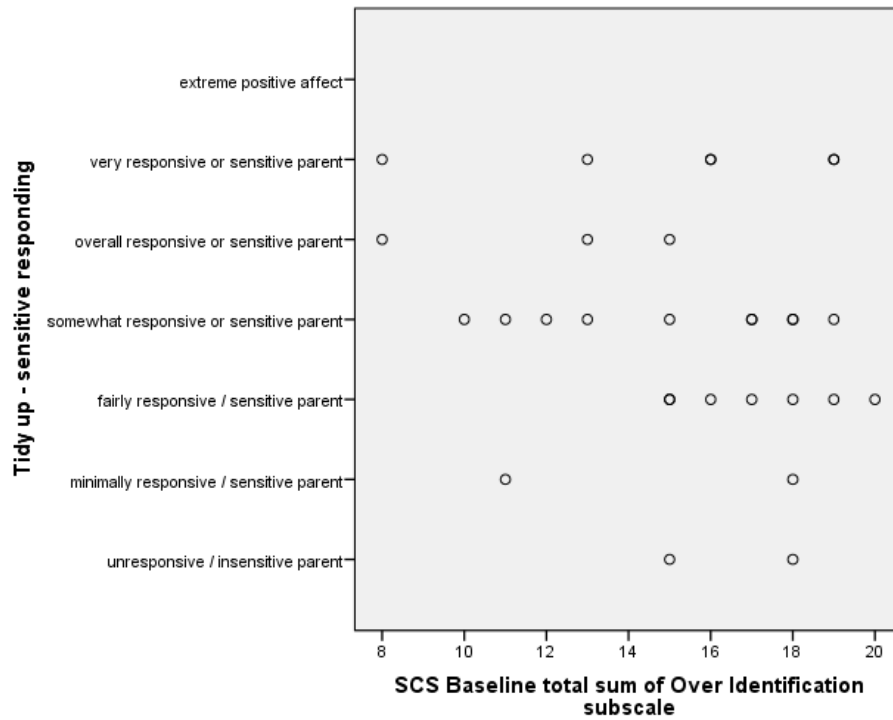
A Scatterplot of Parent Sensitivity during Free Play and Over-Identification at Baseline



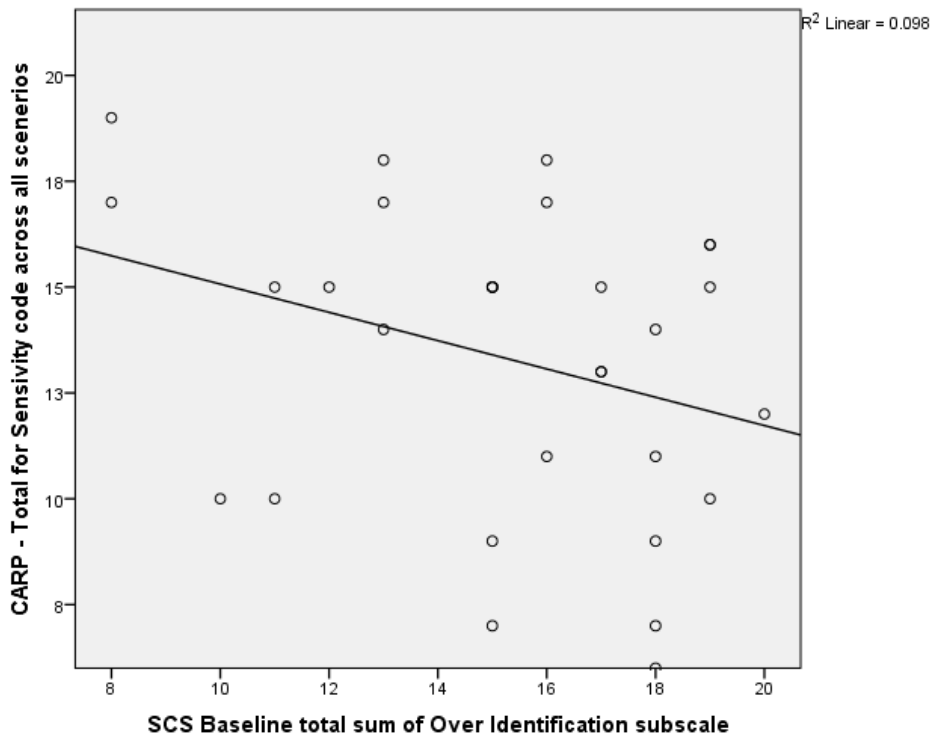
A Scatterplot of Parent Sensitivity during the Lego task and Over -dentification at Baseline



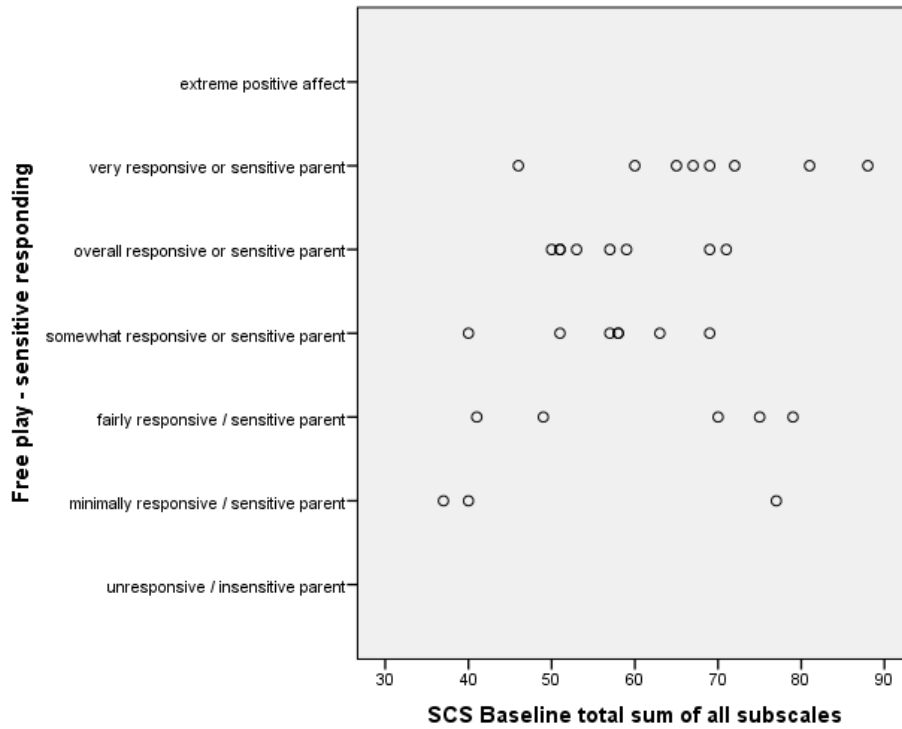
A Scatterplot of Parent Sensitivity during the Tidy Up Task and Over-Identification at Baseline



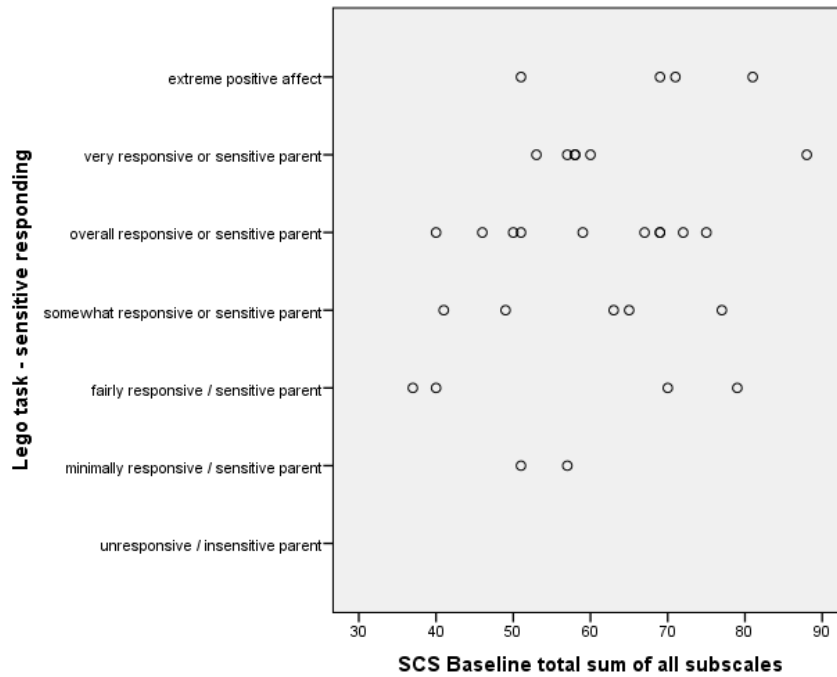
A Scatterplot of Parent Sensitivity Total Score and Over-Identification at Baseline



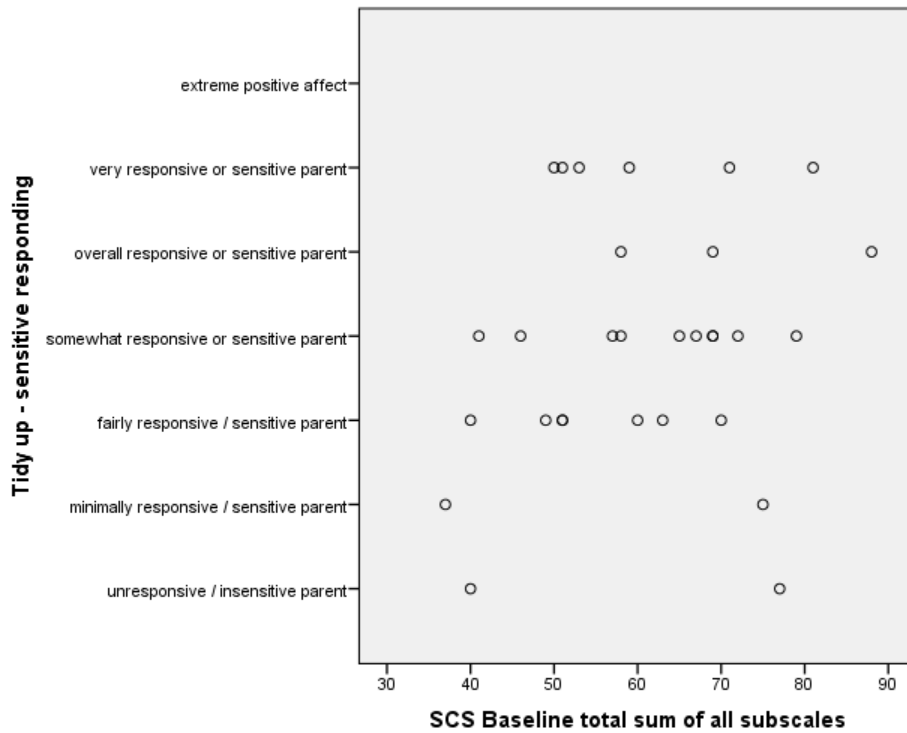
A Scatterplot of Parent Sensitivity during Free Play and Total Self-Compassion at Baseline



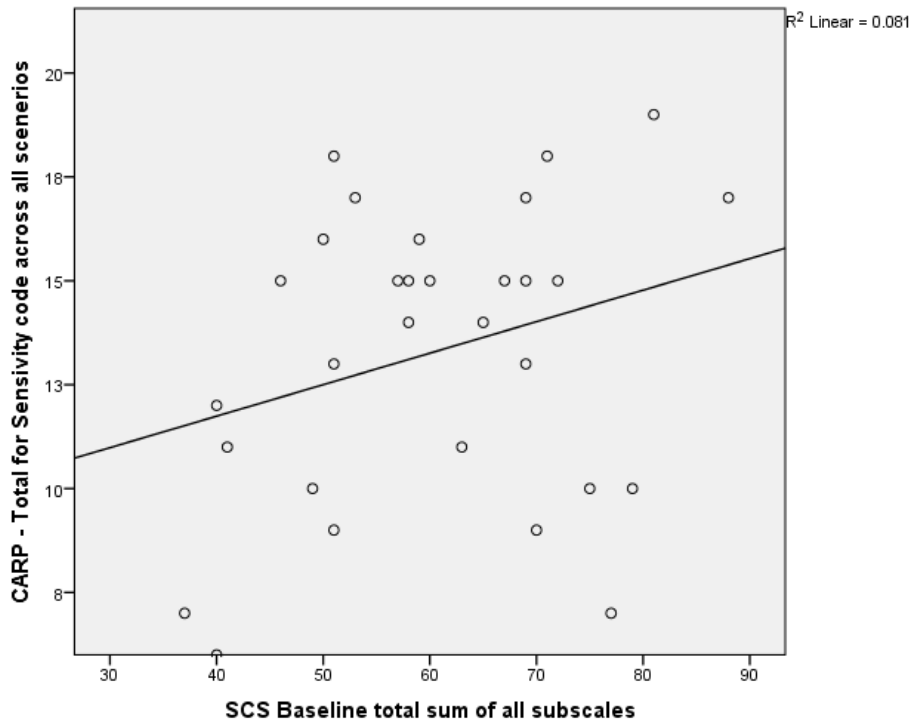
A Scatterplot of Parent Sensitivity during the Lego task and Total Self-Compassion at Baseline



A Scatterplot of Parent Sensitivity during the Tidy Up Task and Total Self-Compassion at Baseline



A Scatterplot of Parent Sensitivity Total Score and Total Self-Compassion at Baseline



Appendix O

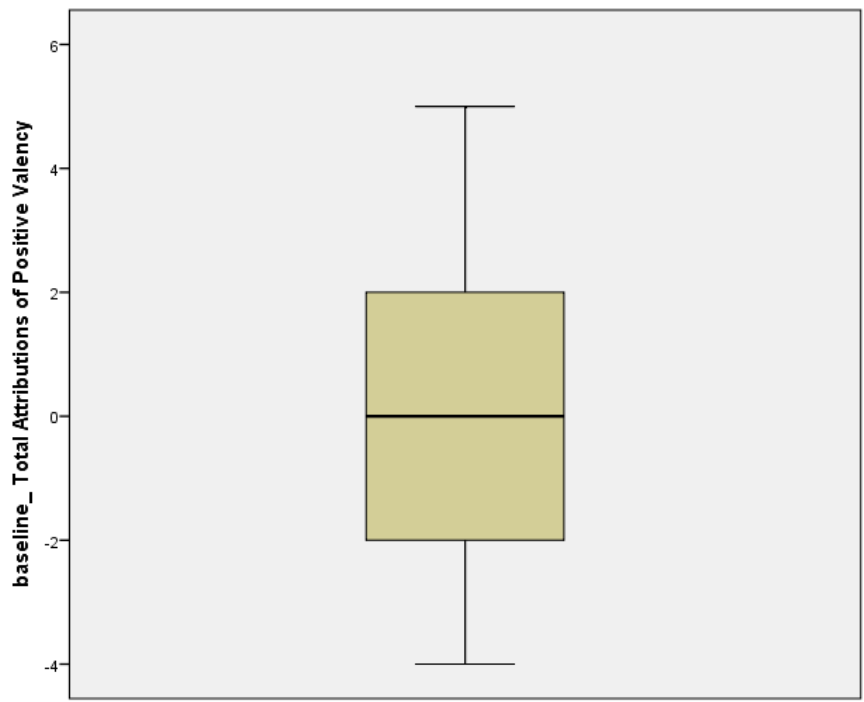
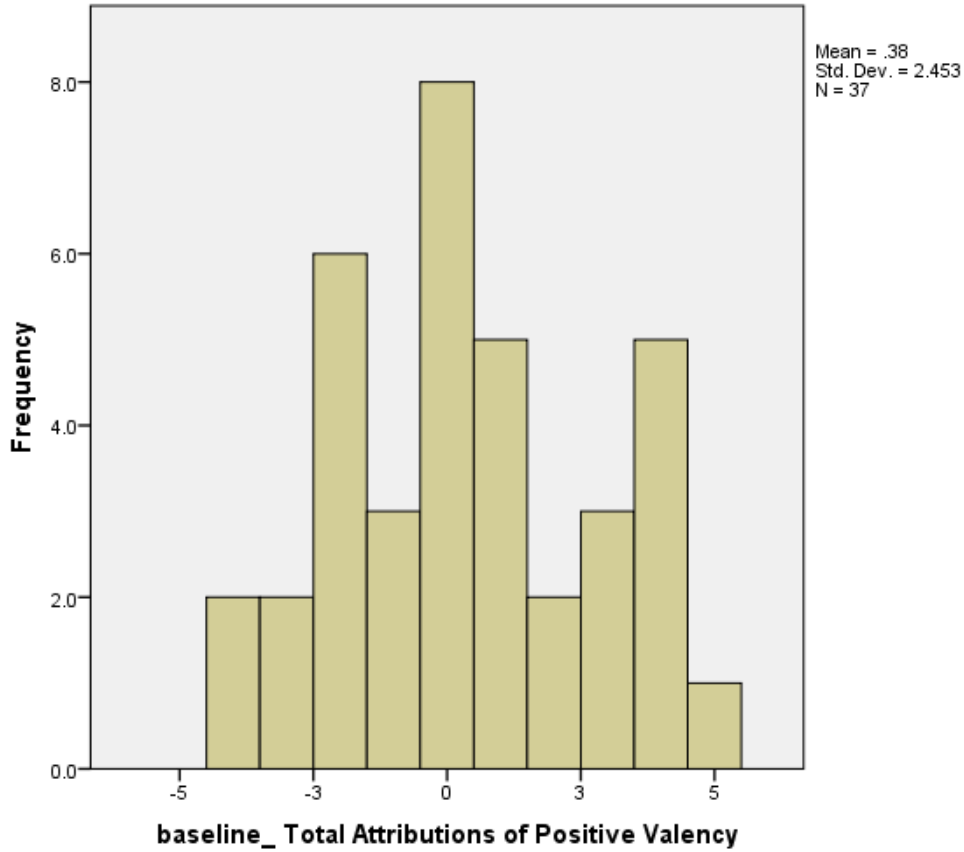
Histograms and Box and Whisker Plots

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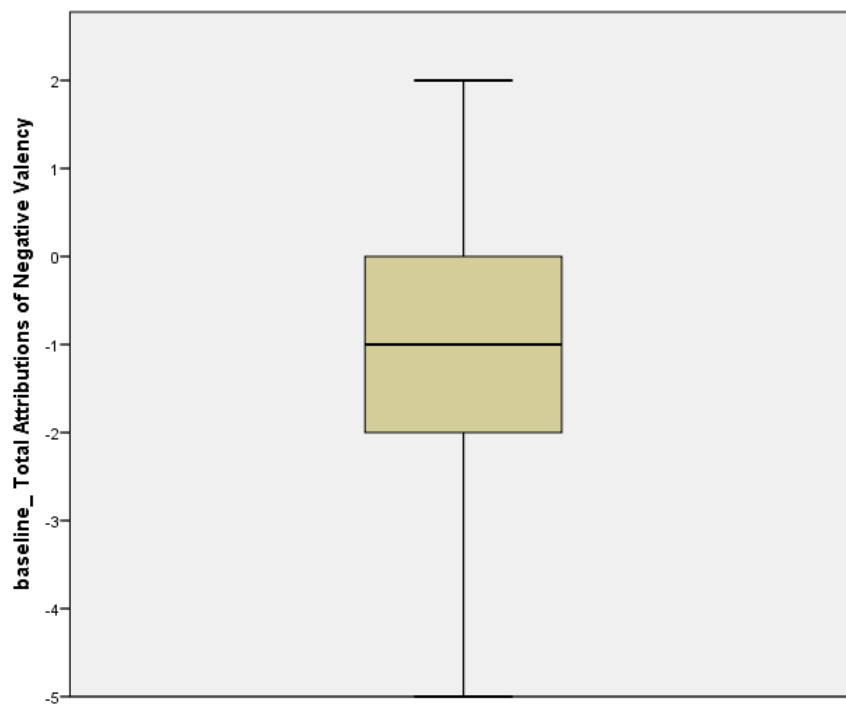
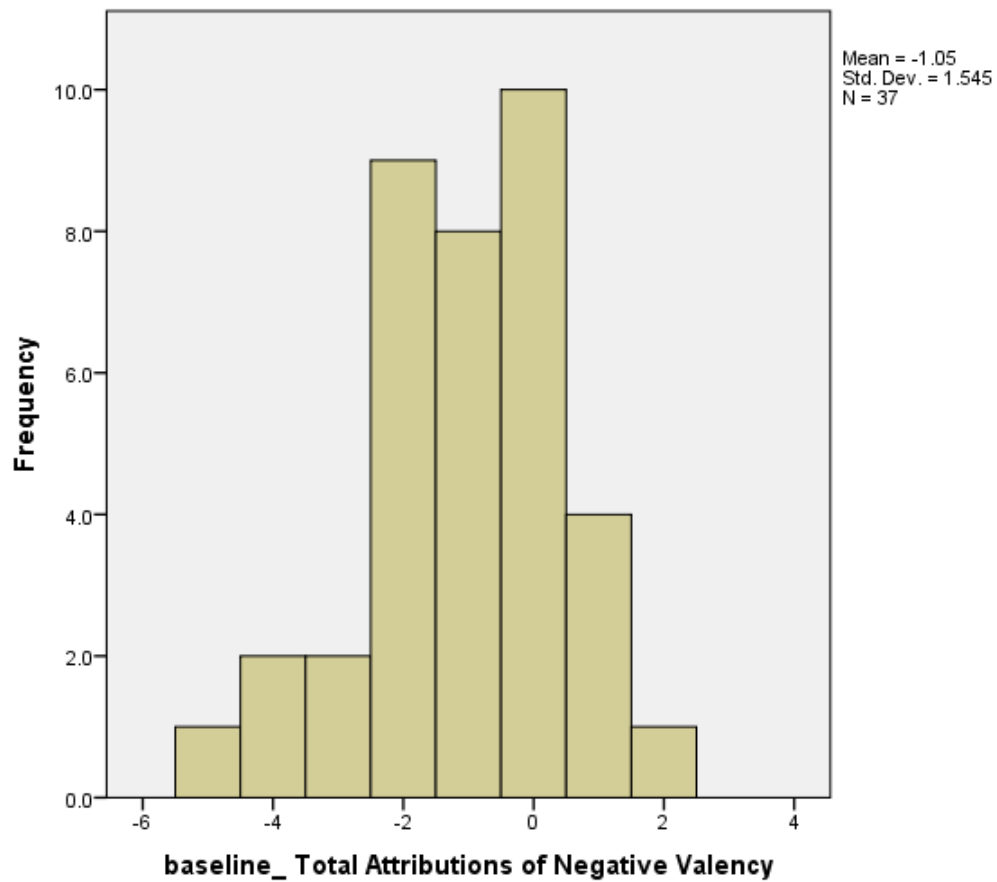
Attribution Total of Positive and Negative Valence_____	p.140
Parent Sensitivity_____	p.142
Self-Compassion_____	p.146

Histograms and Box and Whisker plots for Attribution of Total Positive and Negative Valence

Attribution of Total Positive Valence in Total Sample at Baseline

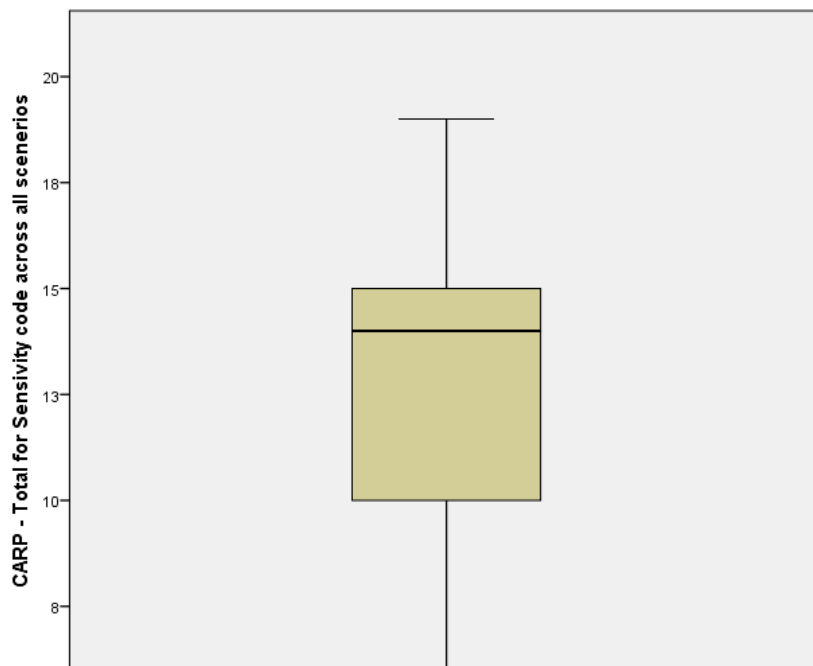
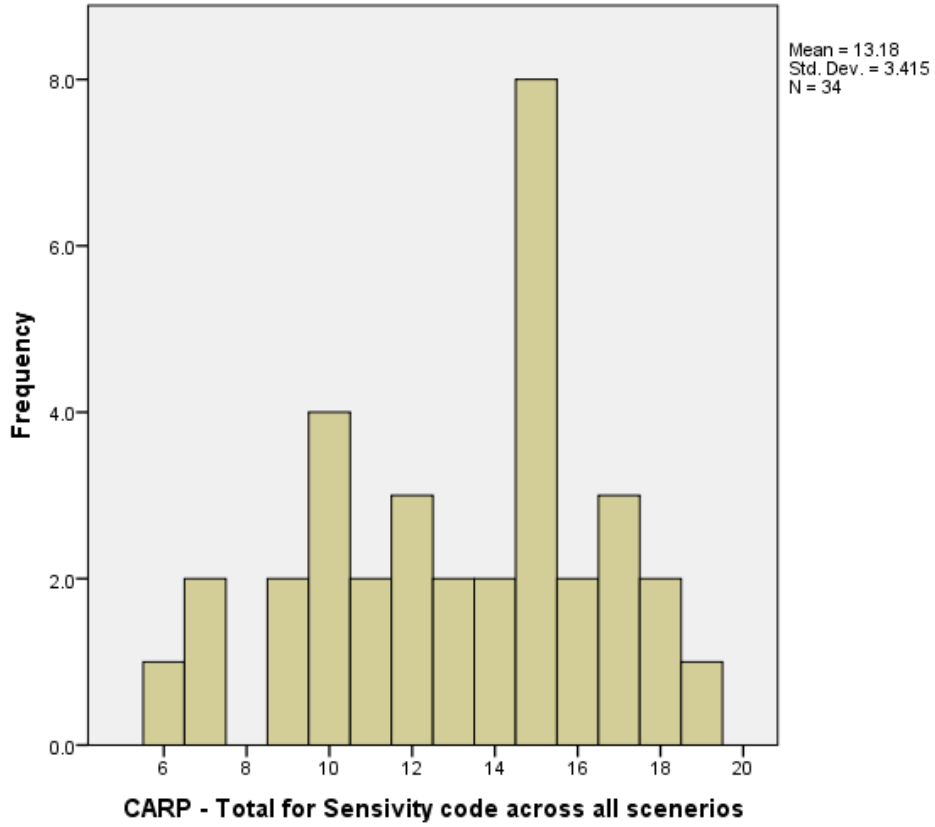


Attribution of Total Negative Valence in Total Sample at Baseline

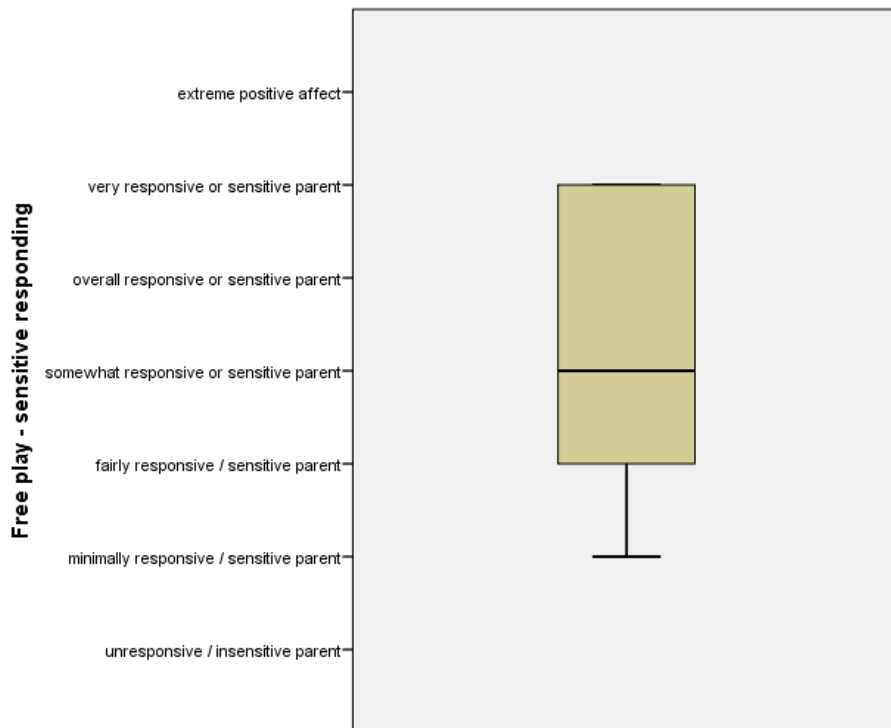
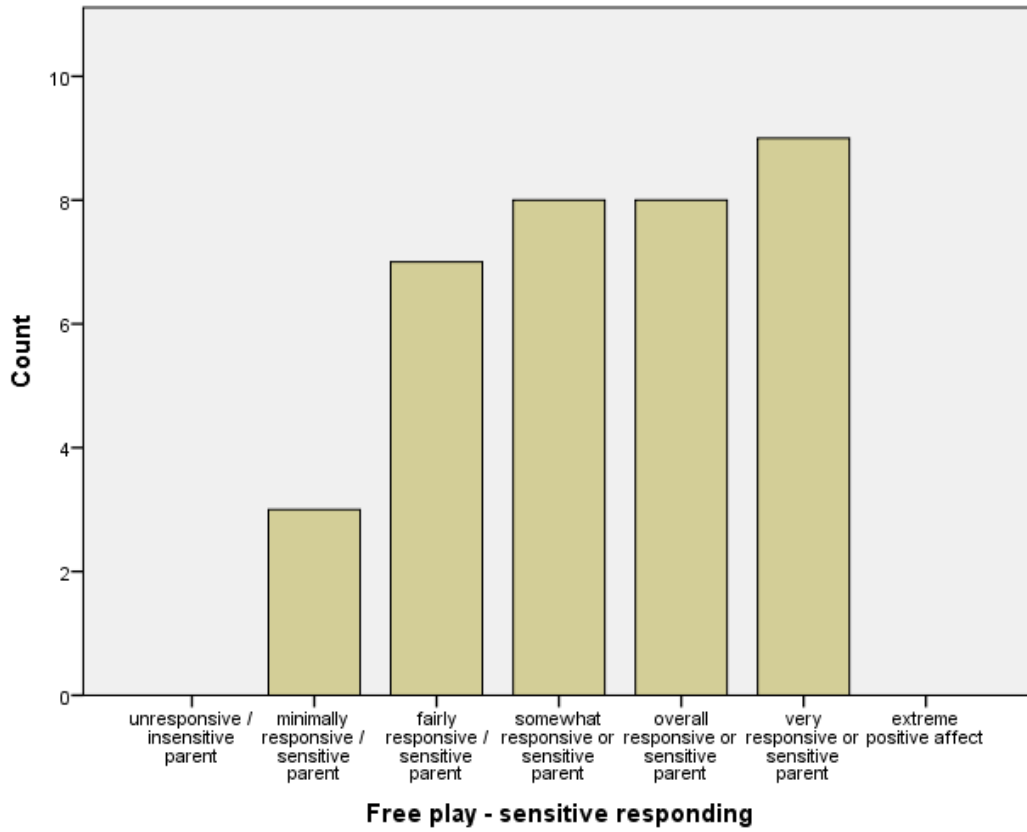


Histograms and Box and Whisker Plots for Parent Sensitivity

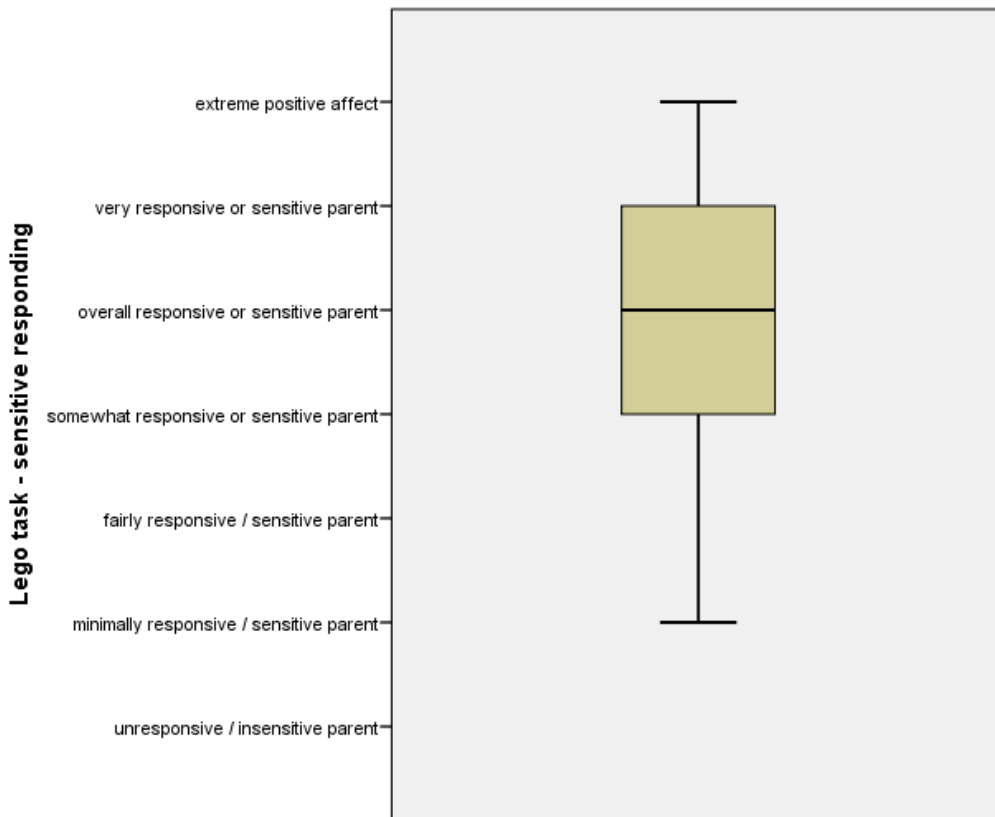
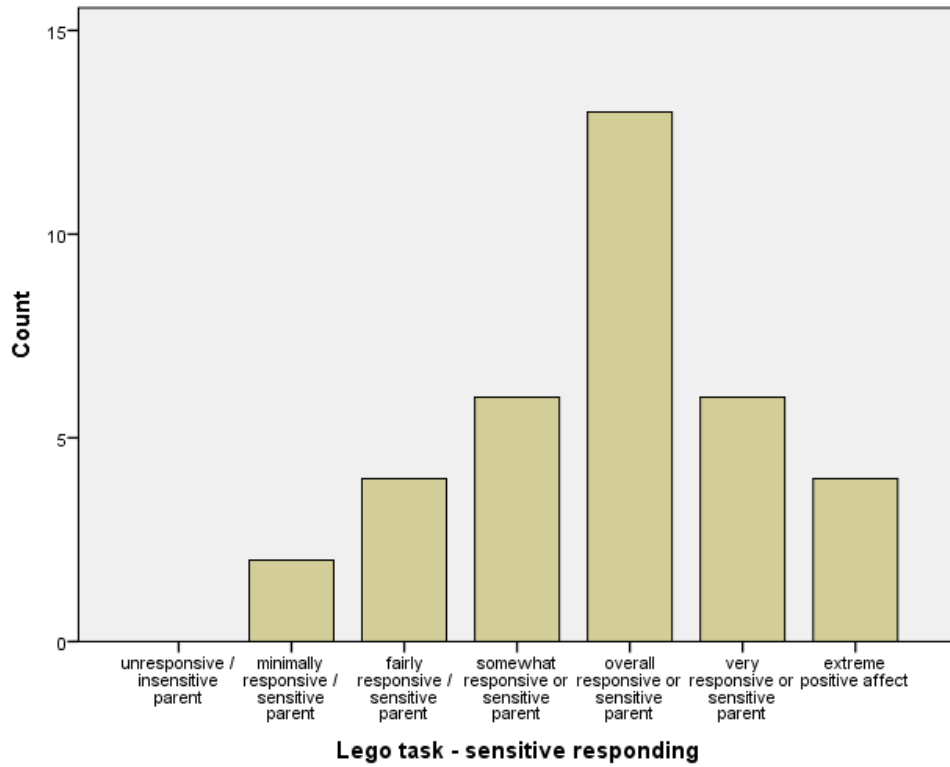
Total Sensitive Responding at Baseline



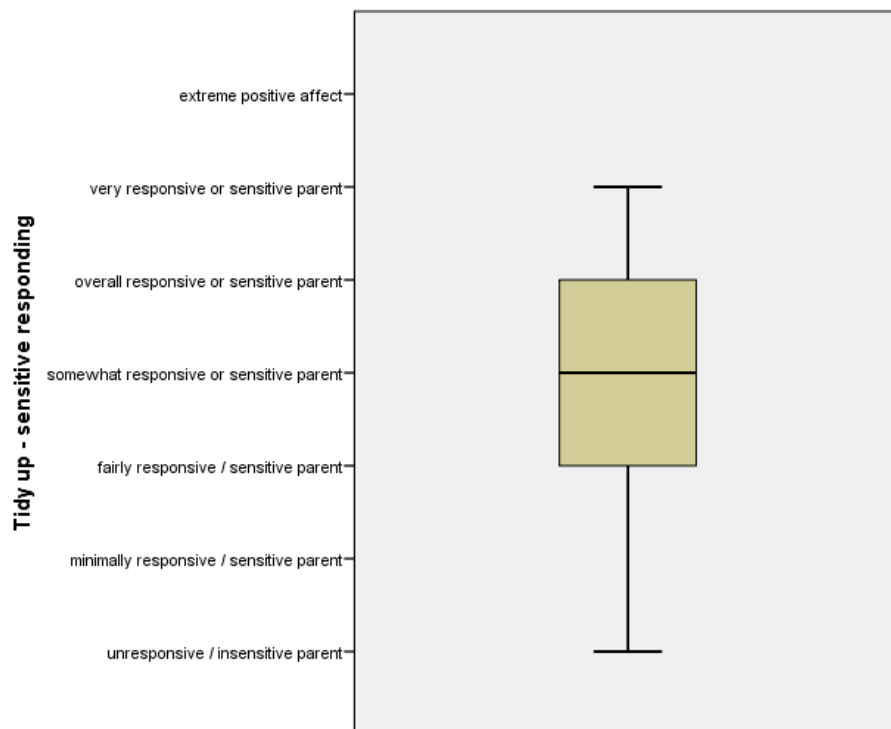
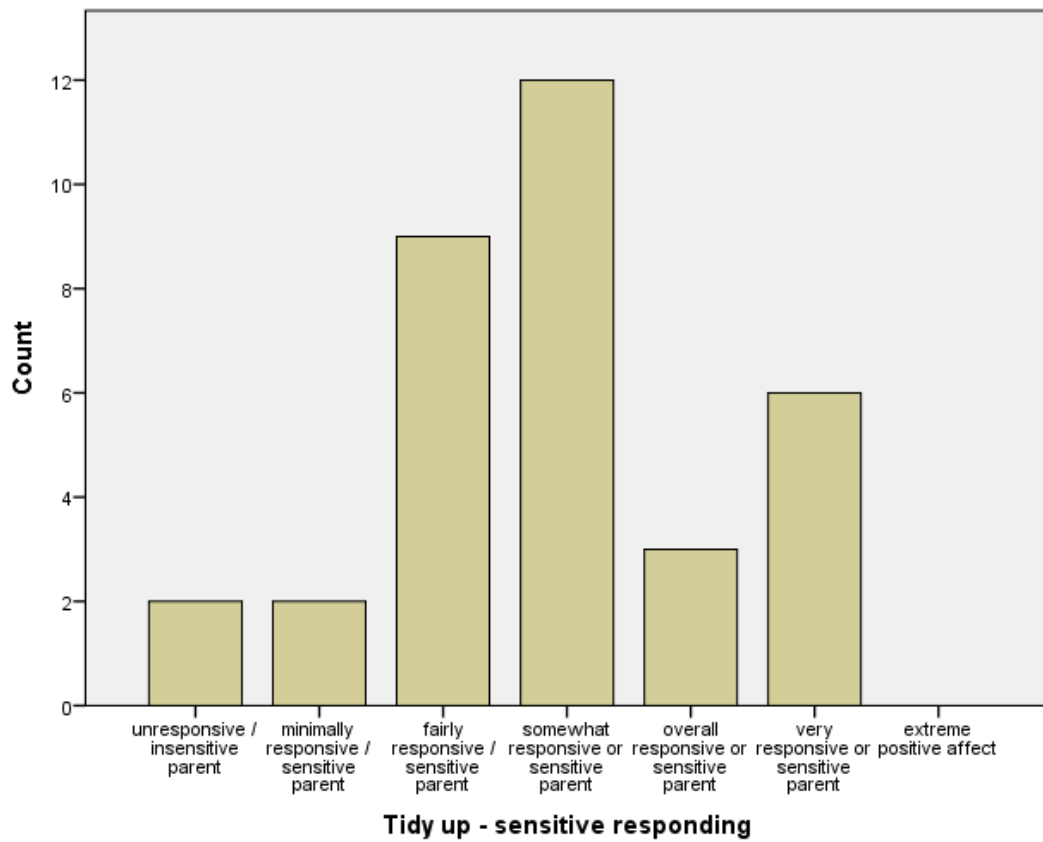
Sensitive Responding in Free Play at Baseline



Sensitive Responding in the Lego Task at Baseline

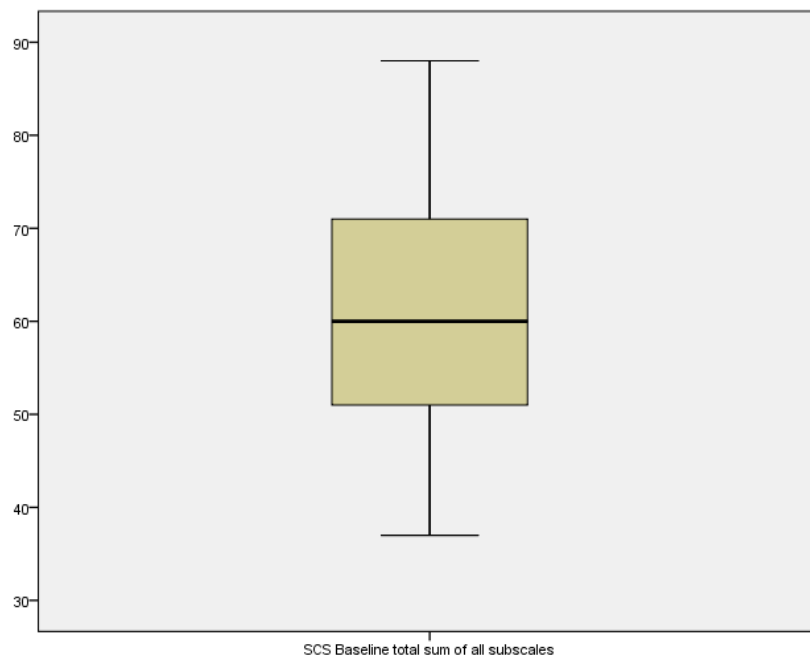
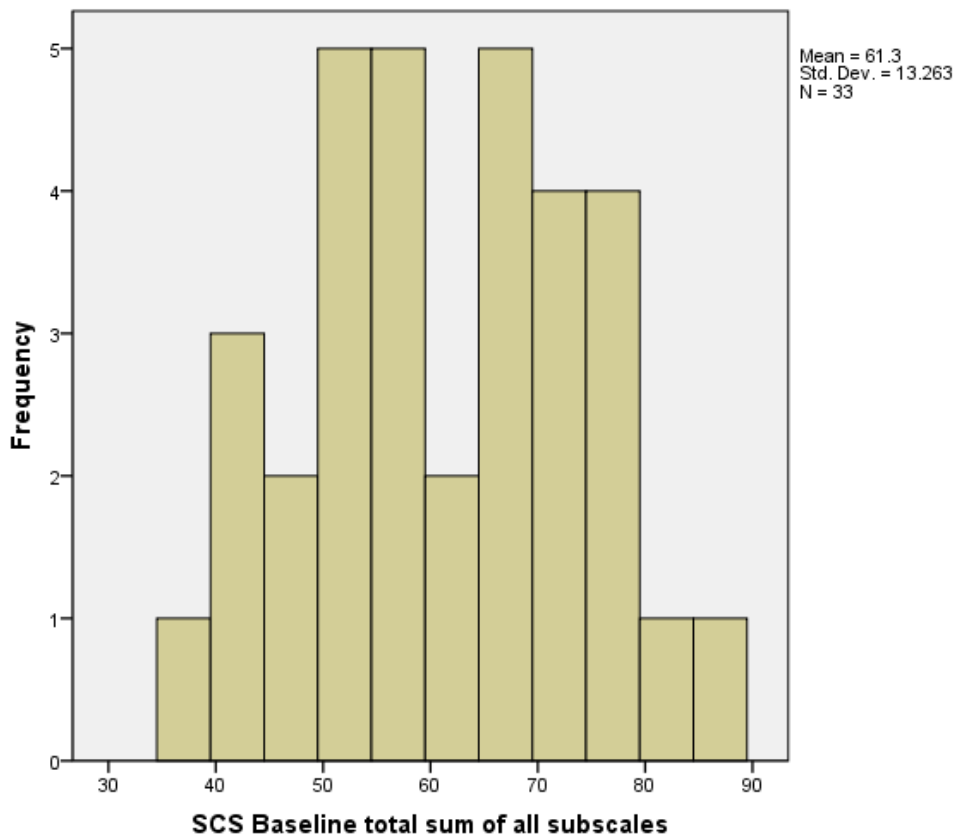


Sensitive Responding in the Tidy Up task at Baseline

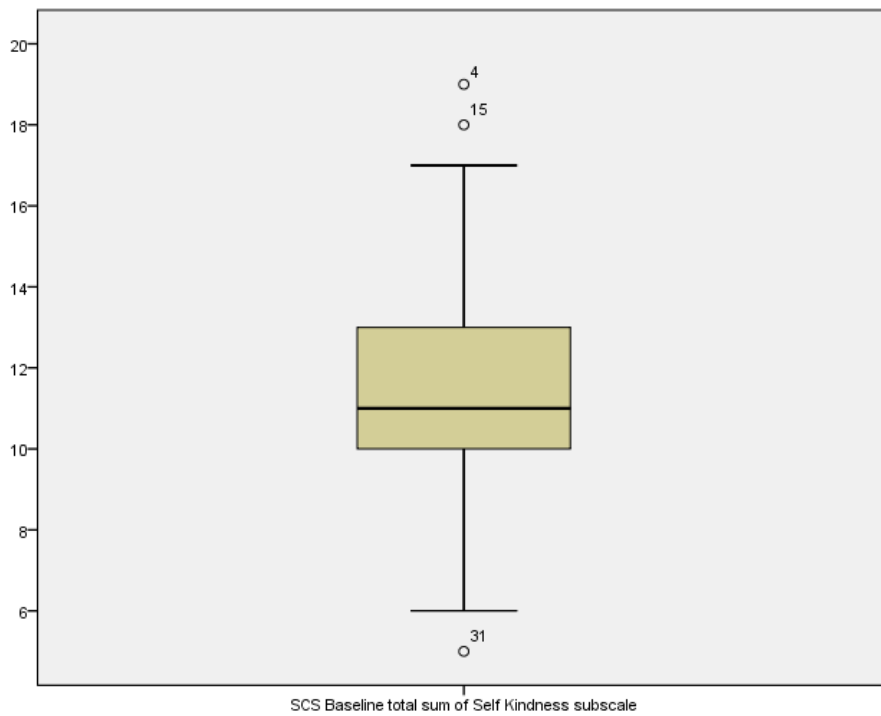
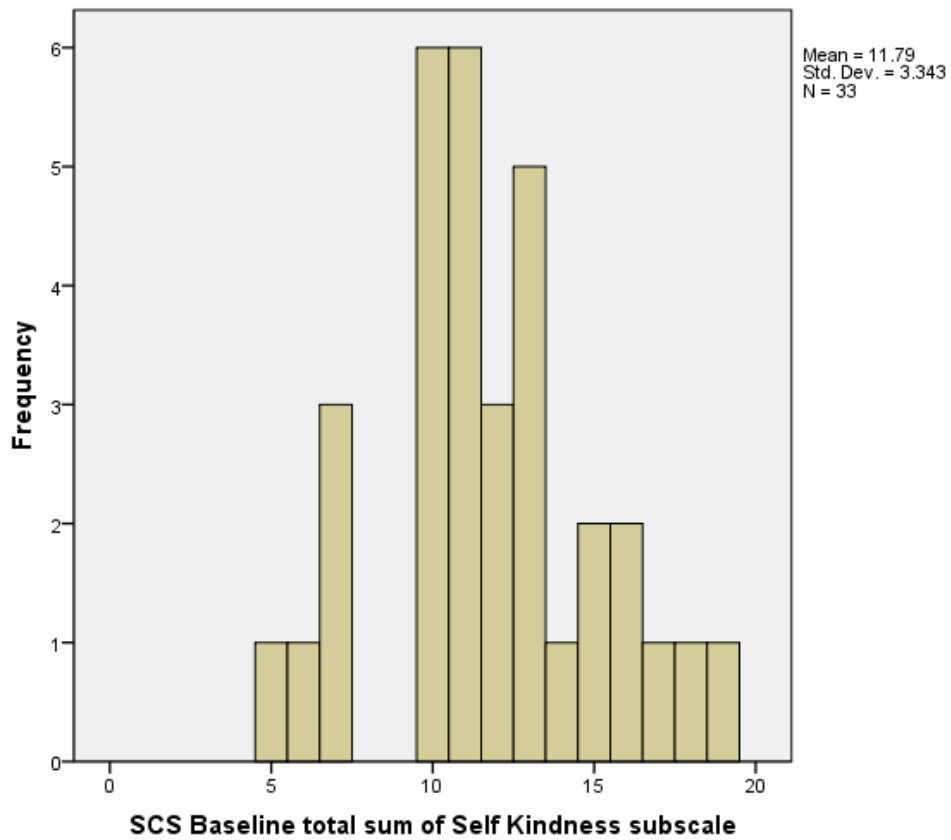


Histograms and Box and Whisker Plots for Self-Compassion

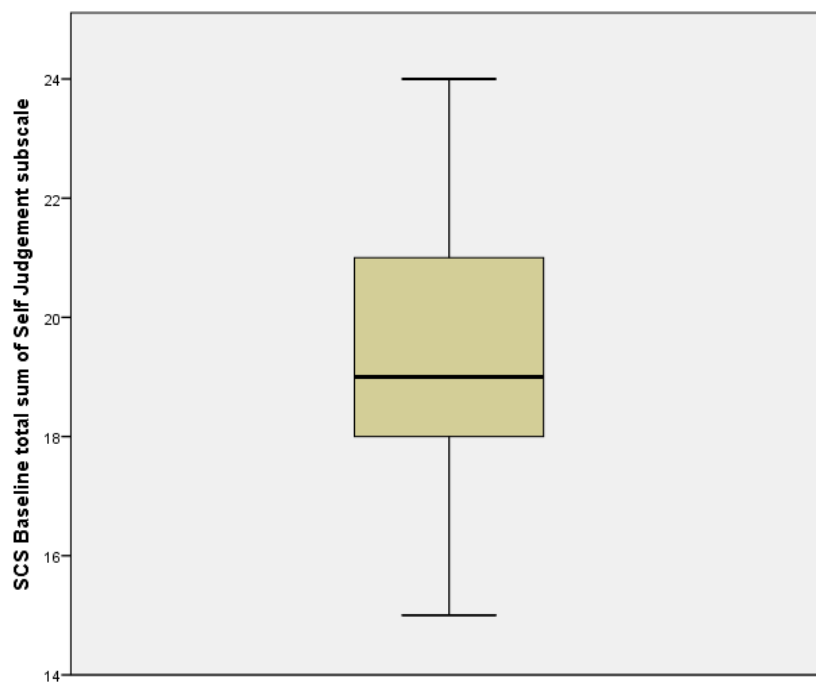
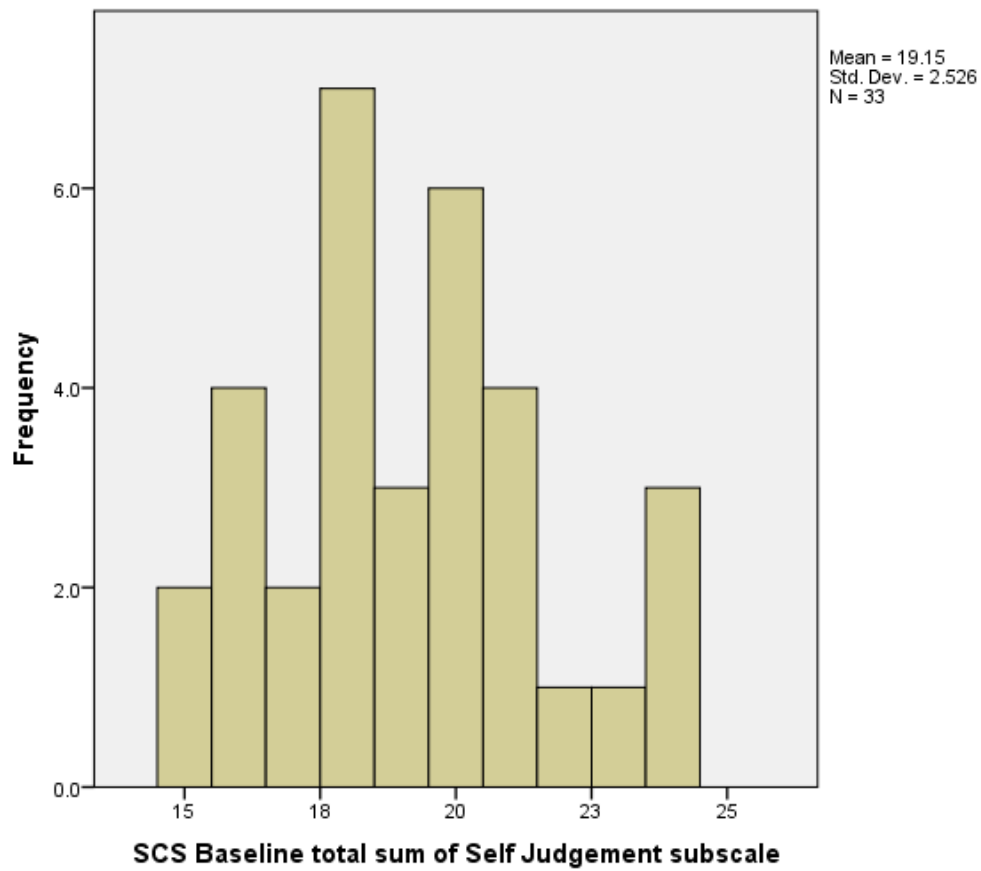
Total Self-Compassion at Baseline



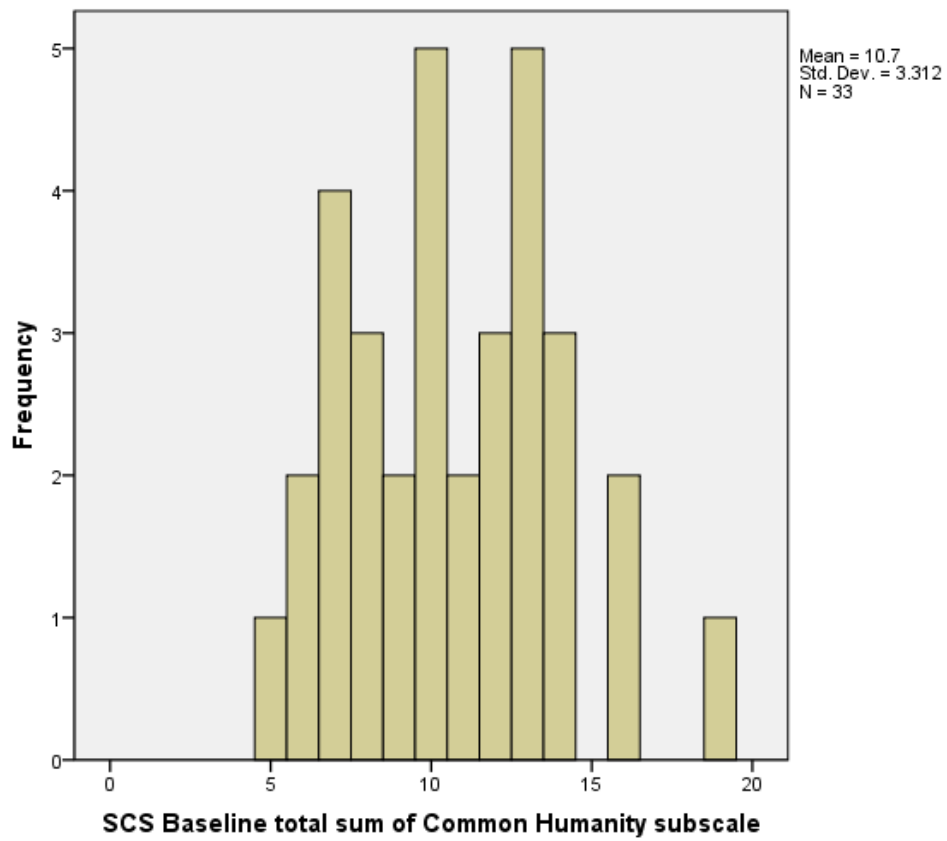
Self-Kindness at Baseline



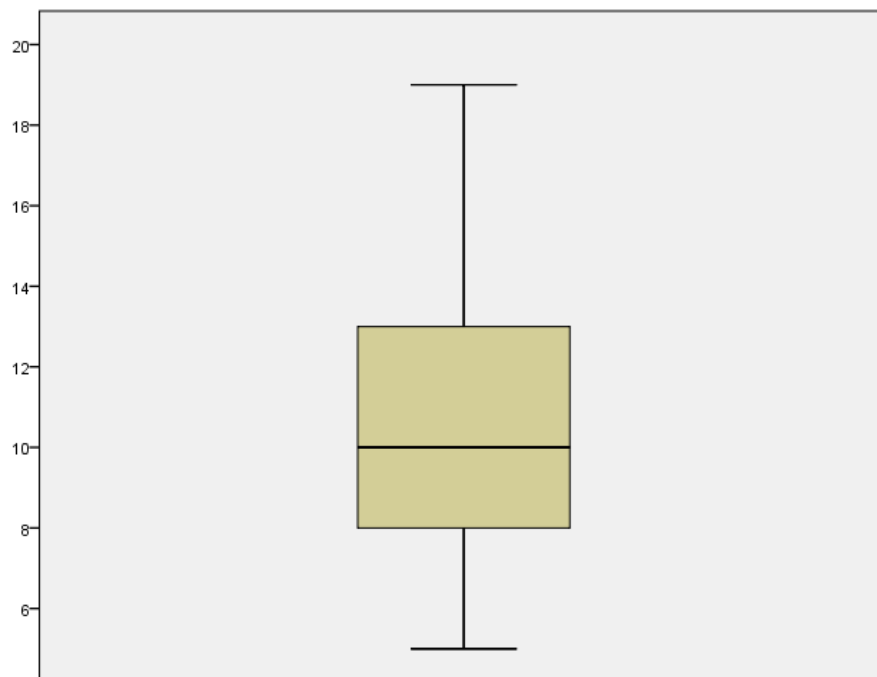
Self-Judgement at Baseline



Common Humanity at Baseline

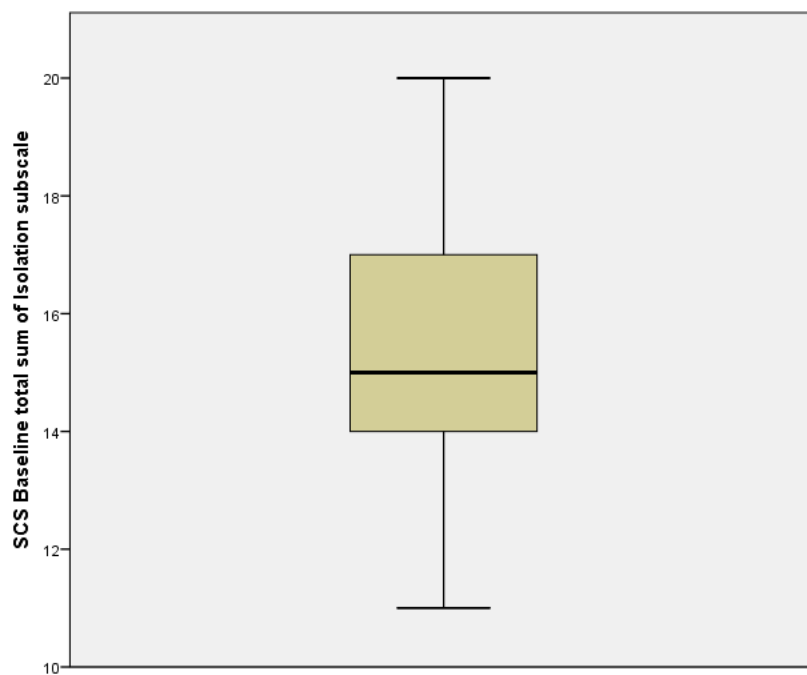
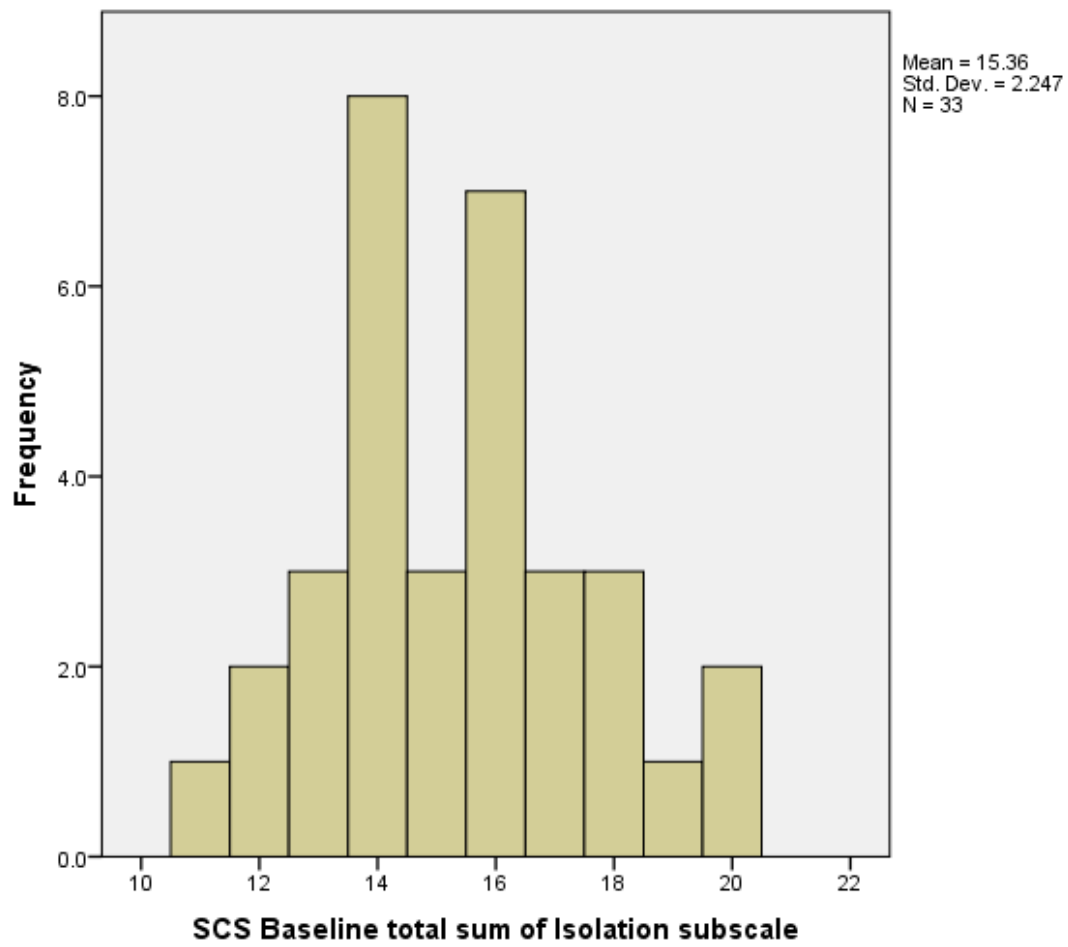


SCS Baseline total sum of Common Humanity subscale

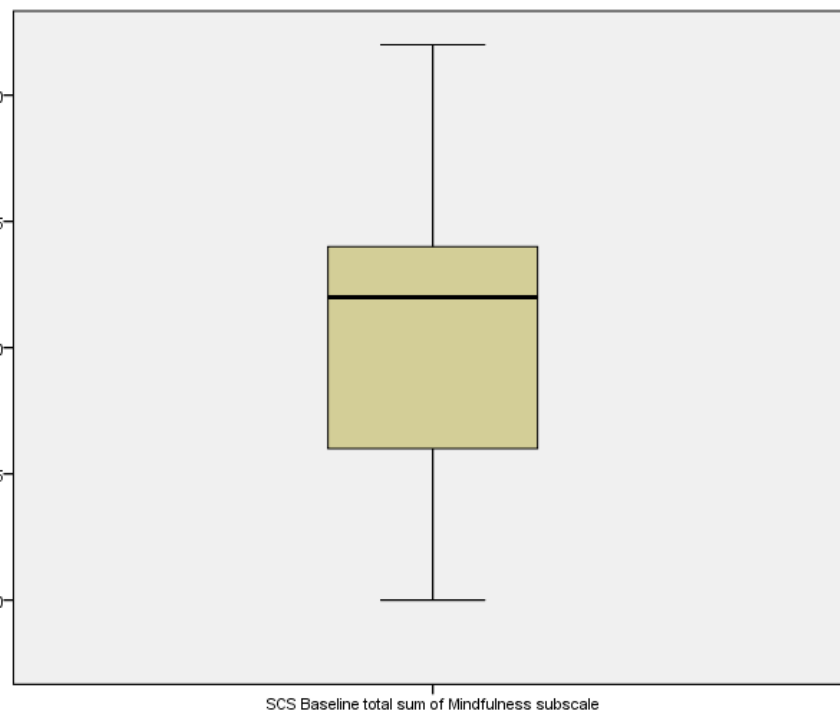
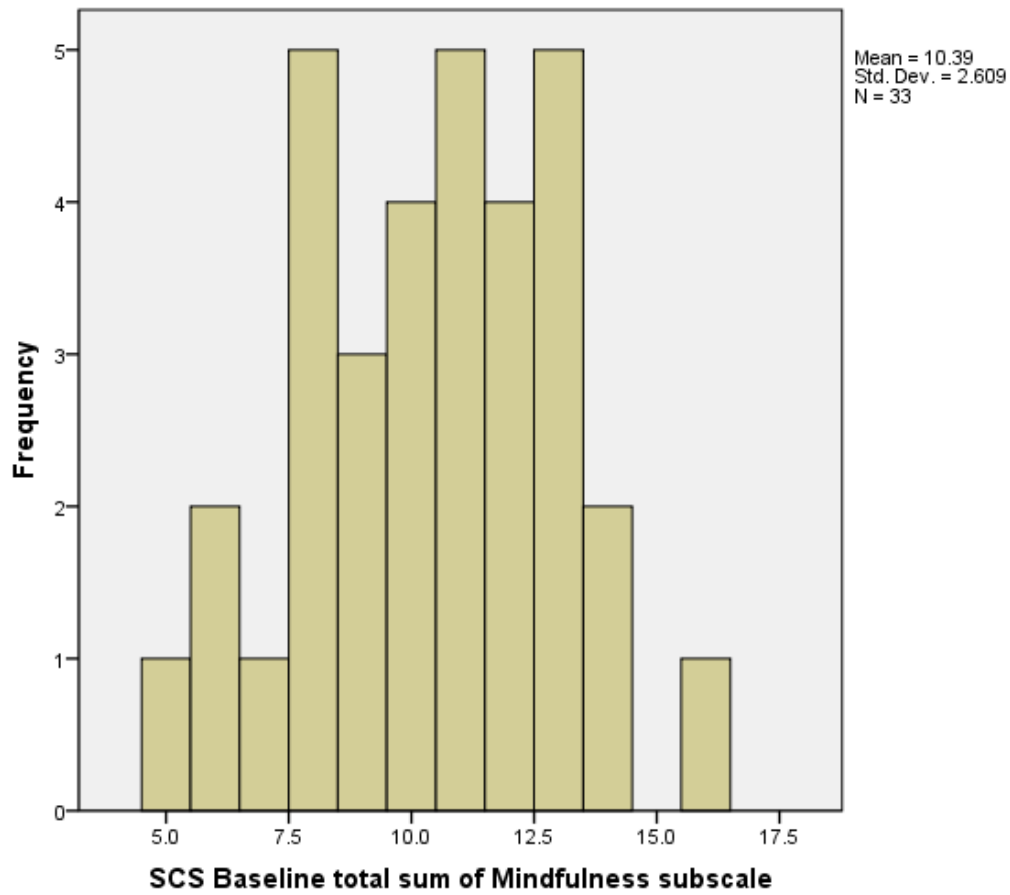


SCS Baseline total sum of Common Humanity subscale

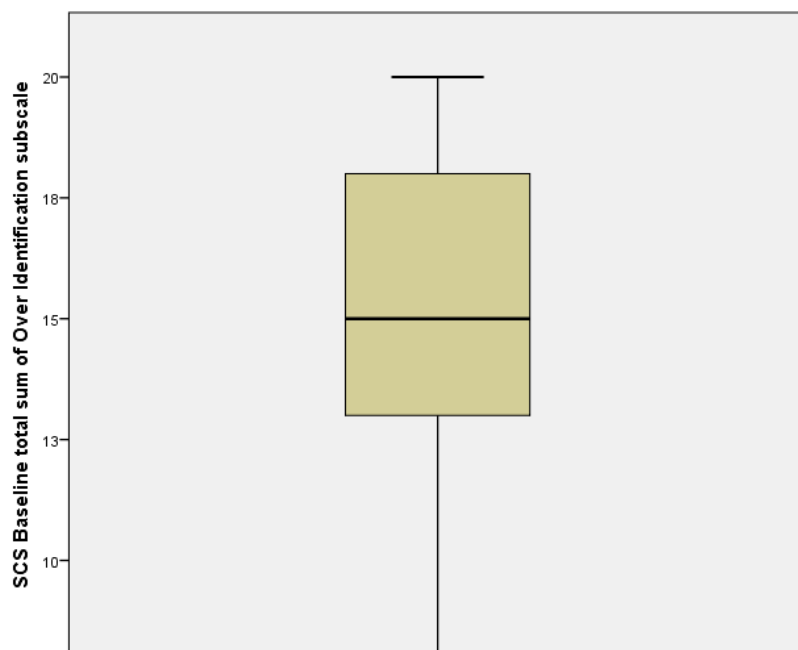
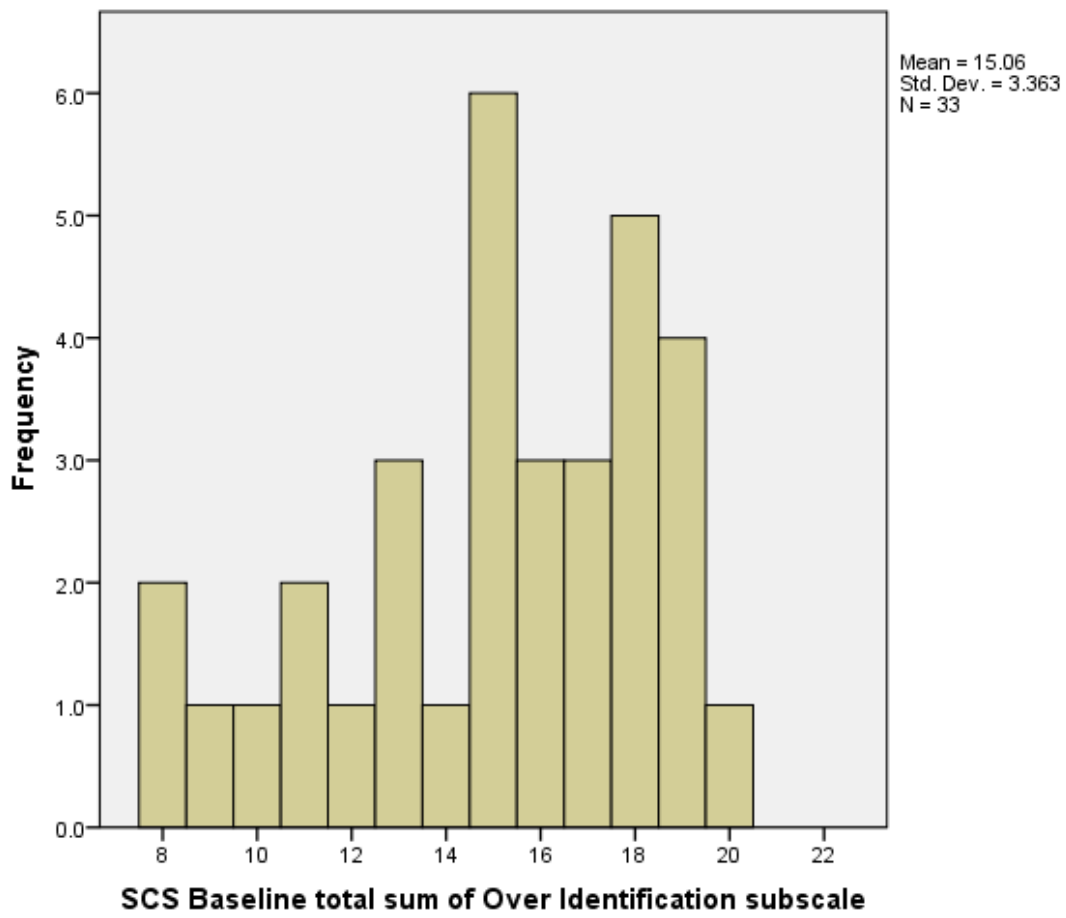
Isolation at Baseline



Mindfulness at Baseline



Over-Identification at Baseline



Dissemination Statement

The findings in the current study will be disseminated in several ways. This project is part of a wider RCT which has already begun to disseminate findings. The initial analysis explored in this study (concerning the association between sensitive responding and the self-judgement aspect of the Self-Compassion Scale) has already been introduced in a presentation by the PhD student on the wider RCT. The “Mindfulness in Society” conference was held at Bangor University's Centre for Mindfulness Research and Practice on 25th March 2013.

The study will be submitted to the journal *Mindfulness* in the appropriate format. This manuscript has followed the instructions to authors as required by this journal. This publication is dedicated to exploring mindfulness and expresses particular interest in issues surrounding mindfulness, such as parenting. This study focuses on self-compassion, a construct shown to be closely associated with mindfulness and a mediator of change in mindfulness-based interventions (Kuyken et al., 2010). It is also focused towards the relationships between self-compassion and aspects of parenting. Additionally, the study considers implications for further research in the area of mindfulness-based interventions, another focus of *Mindfulness*. It therefore seems this study is well suited for publication in this journal.

This study is part of phase II of a feasibility trial which is intended to provide the base for a definitive phase III trial. Therefore, it is hoped the final area of dissemination will be to inform the next stage of the wider project, concerning MBCT for parents with recurrent depression.

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