An interactive book to be used with children and adolescents to foster a sense of emotional regulation, attachment, control and safety following trauma.

"I AM FEELING....."

An interactive tool for communicating emotion after trauma in children and adolescents.

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Contents

The book

The book "I am feeling…." is designed to aid expression of thoughts and emotions for children experiencing mental illness or trauma related symptoms. It is an interactive tool that is created for, and for use with, children aged up to 12 years. It can be used by the child themselves, to keep with them to access at any time of the day to express their emotions to others, or to use the strategies within the book to manage their thoughts, feelings and symptoms themselves. Parents, teachers and other caregivers can sit with the child, and use the tool interactively to open up communication with the child, and to advise them of strategies to help the child cope with their symptoms. Therapists too, can use the book with children to open up communication in the first session of therapy, or at the beginning of every session to regularly check in with the child about their thoughts and feelings.

The need for this type of tool is evident in the research, where children of this age group have shown difficulty in expressing or describing what they're feeling or experiences (Cohen, 1998). If language impairments are also apparent in a child in this age group, this further frustrates the child's ability to communicate accurately about what they're experiencing. The use of pictures allows the child to select a face, or faces, that best corresponds to their emotion at any given time, and to associate a word with that to describe it. Language impairments can exist prior to the trauma, or be due to the trauma itself (Department for Child Protection, 2015; Department of Education and Early Childhood Development, 2012). Furthermore, the book can open up communications earlier in children within school settings showing signs of emotional dysregulation and frustration. Use of the book in this instance, can aid in early identification, and intervention of trauma.

Neurobiology

Neuroplasticity

Neuroplasticity is important for children in psychotherapy, but also in day to day life (Grawe, 2007). When interference occurs to existing neural pathways, neuroplasticity means that the brain can create new pathways (Doidge, 2010). Interference can refer to events in an individual's day to day life, but it can also occur in therapy (Grawe, 2007). These changes encourage the brain to create new and different neural patterns, and this evident in Hebb's (cited in Rossouw, 2014) finding that when neurons fire together, again and again, the likelihood of them firing together again is increased, and new neural pathways are born. This is promising for the encouragement of regulation of stress responses in children.

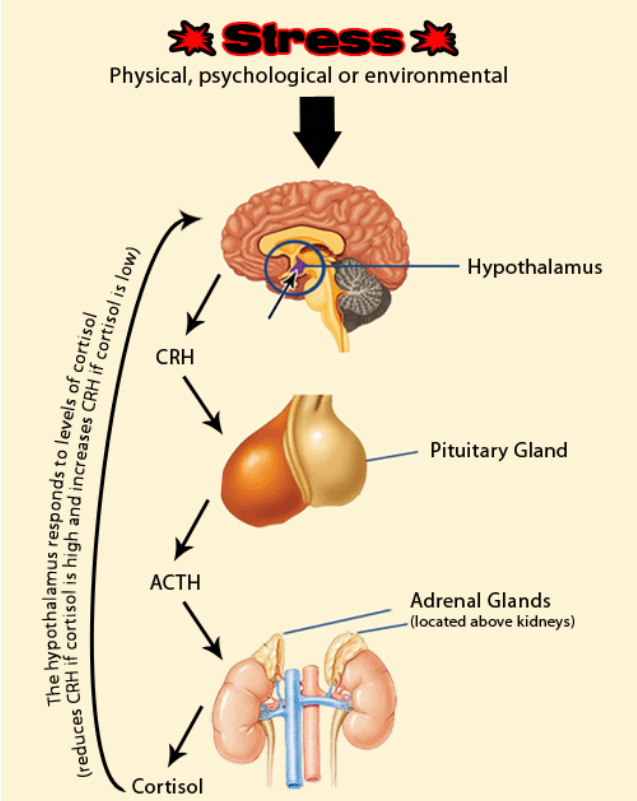
Neurobiology of trauma

Adverse experiences in childhood have been linked to an increased risk of a number of disorders such as depression, anxiety and post-traumatic stress disorder (PTSD) (Heim & Nemeroff, 2001; Heim, Newport, Bonsall, Miller & Nemeroff, 2001). The experience of trauma in childhood generates a vulnerability where stress is concerned even in adulthood (Heim & Nemeroff, 2001).

The hypothalamic-pituitary-adrenocortical (HPA) axis

The hypothalamic-pituitary-adrenocortical (HPA) axis is an important network in stress response as depicted in Figure 1 (Heim et al., 2001; Miller, Chen & Zhou, 2007; Total Body Psychology, 2015). The hypothalamus produces corticotropin-releasing hormone (CRH) which

is transmitted to the pituitary gland. The pituitary gland releases adrenocorticotropin hormone (ACTH) which is transmitted to the adrenal gland. The adrenal gland produces stress hormones, one of which is cortisol. The HPA axis also incorporates a negative feedback loop which loops back to the hypothalamus and the cycle starts again, with lower or higher levels of CRH released depending on the levels of cortisol present. Chronic stress can lead to a sensitisation of the HPA axis which needs to be modified to regulate stress responses (Heim et al., 2001). In PTSD, cortisol levels are lower, which impacts on the negative feedback loop and leads to heightened stress responses (Miller et al., 2007). The HPA axis is an important consideration in regulating stress responses. This book aims to reduce present distress to pave the way for the restoration of attachment, control and safety in psychotherapy.



Stress & the HPA axis

Figure 1. Stress and the HPA axis (Total Body Psychology, 2015)

Integrated model of the base elements of the theory of Neuropsychotherapy

The integrated model of the base elements of the theory of Neuropsychotherapy, as seen in figure 2, describes the elements involved in creating patterns of approach or avoidance in life (Rossouw, 2014). Patterns of avoidance are behaviours that involve avoiding those parts of life which are unpleasant for an individual (Rossouw, 2014). Patterns of approach are in essence behaviours that involve attempting parts of life, regardless of unpleasant aspects (Rossouw, 2014). While the former is often found in various forms of pathology, the latter is seen in those individuals experiencing wellness (Rossouw, 2014). The aspects of the model leading to these patterns are detailed below.

Safety

Human beings have a number of primary needs, and one of these needs is a feeling of safety (Allison & Rossouw, 2013). This feeling of safety is necessary to enable an individual to regulate stress responses when presented with what they perceive as a threat (Rossouw, 2013). During psychotherapy, a sense of safety has been found to promote the development of new and modified neural patterns, which has been found to enable down-regulation of stress responses (Rossouw, 2013). This provides a good foundation for enabling restoration of the other aspects of the model, control, attachment and pleasure maximisation, which in turn promotes better regulation of distress (Rossouw, 2013). A therapist can help foster a sense of safety by providing a respectful relationship with their client which is consistent over therapy (Grawe, 2007). This would then encourage patterns of approach and reduce patterns of avoidance (Rossouw, 2014).

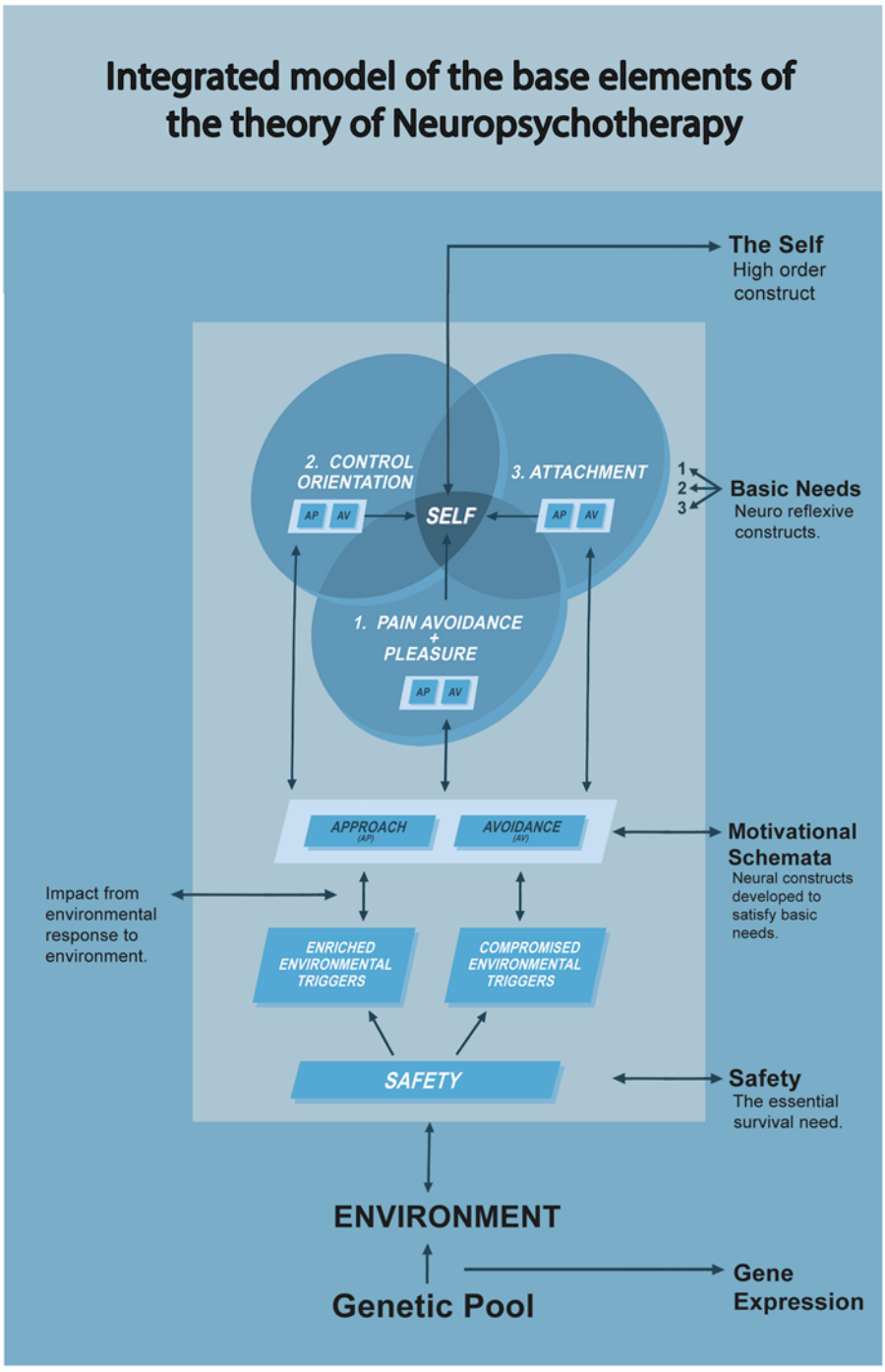


Figure 2. Integrated model of the base elements of the theory of Neuropsychotherapy (Rossouw, 2014)

This book aims to increase a sense of safety for the child, in opening up a dialogue between the child and caregivers, whether this be parents, teachers, or therapists. The encouragement of communication of whatever emotion the child may be feeling at a given time, and a proactive approach to using the strategies to reduce symptoms, will reassure the child that it is okay to feel that emotion. It is anticipated that this will encourage a better attachment between the child and caregivers, and a better therapeutic alliance between child and therapist. There is evidence to suggest that both attachment with, and support by a caregiver fosters this sense of safety (Ong & Caron, 2008). The therapeutic alliance is supported in the literature as an important aspect of encouraging a sense of safety (Rossouw, 2014). The therapeutic alliance is a fluid process which effects change through the promotion of a sense of safety and an associated down regulation of stress (Rossouw, 2014). Once down-regulation of the stress responses has occurred, cortical blood flow is increased in the frontal pathways, and this enables the child to develop new patterns of thinking (Rossouw, 2014).

Control

A feeling of control is important to the development of the child's motivational schema (Rossouw, 2014). If the child does not have a sense of control over how he feels and behaves, this leads to activiation of the amygdala, which reduces activation of the prefrontal (Cozolino, 2010). This reduction is the prefrontal areas, inhibits the ability to think rationally about whether the stimuli is indeed a threat, and how to respond (Cozolino, 2010). This book aims to foster a child's sense of control by allowing them to communicate how they are feeling to others, and to adults. It opens up a dialogue between caregivers, or therapist, and the child. By including activities the child can learn and master, and then apply during times of stress, this will also encourage a sense of control over emotion regulation.

Attachment

An important factor in ensuring a child's ability to manage distress throughout childhood, and even later in life, is attachment (Bowlby, 1988). Bowlby (1988) determined that an individual's relationships and ability to manage stress, is predicted by the attachment relationships they have with their primary caregivers in infancy and childhood. The neurobiological patterns aid in the construction of motivation schemas, and are laid down in a child's first year of life (Rossouw, 2014). Ainsworth (1978) expanded on this concept in the Strange experiment, to describe styles of attachments. These included: secure, insecure-avoidant, insecure-ambivalent, and insecure-disorganised (Ainsworth, 1978).

This book aims to encourage better attachment with primary caregivers, therapists, and those who influence a child's early years such as teachers. It is anticipated that attachment will improve through the communication incited by the book, and through the sense of the child that they are better understood. It is also expected that the caregivers, teachers and therapists in a child's life, will better understood the child's needs, and therefore be better equipped to meet those needs and support the child in meeting their own needs.

Pleasure maximisation

Another primary need portrayed in the model is the need for pleasure maximisation (Grawe, 2007; Rossouw, 2014). This is described as the need of the individual to maximise pleasure for themselves and to reduce any occurrence of pain (Rossouw, 2014). This need is experienced as met, when how we see things and the goals we have are consistent, and there are no battling intentions to conflict (Grawe, 2007). In this sense, the idea of what constitutes

pleasure and pain is subjective to the individual, and fluctuates, depending on the individuals needs at that times (Rossouw, 2014). This book aims to encourage pleasure maximisation by increasing a sense of safety, attachment and control, to allow for more room for pleasant activities. It is anticipated that as the child restores these needs, and they are no longer violated, the child will experience a reduction is stress responses which allow periods of relaxation. The child is encouraged to list the activities they like to do within the book, in the hope that this stimulates a desire for, and recognition of the fun parts of life once the stress responses are reduced.

Evidence based treatments

Psychoeducation

Psychoeducation is an important way to enable the child to understand their experience of their symptoms (Harvey, Bryant & Tarrier, 2003; Hisli Sahin, Yilmaz & Batigun, 2011). It recognises the trauma and the associated thoughts and feelings, but helps the child to understand what is happening to them (Harvey et al., 2003). Psychoeducation can also enable the caregivers to understand what the child is experiencing, which fosters a stronger attachment and enables the caregiver to more accurately meet the child's needs (Ong & Caron, 2008). This book aims to normalise the feelings the child is experiencing, and to encourage the child to develop a sense of control over the regulation of these feelings and thoughts (Hisli Sahin et al., 2011). Further development of the book should include more information regarding what is happening within the child's body, to help them understand what is happening. This could be simplified and could involve pictures and terms that they would recognise and relate to. The sections for the adults, encourage a better understanding of the experience of the child.

Mindfulness

The neurobiology behind mindfulness shows evidence of reduction of activation of the amygdala, down regulating stress responses, and increased activation in the hippocampus (Holzel et al., 2011). Mindfulness therefore, down regulates stress responses, and encourages a sense of control over emotional regulation and behaviour (Rossouw, 2014). These exercises encourage a focus on the present, and shift the focus away from ruminating over negative thoughts (Rossouw, 2014). Specifically, mindfulness has been shown to be beneficial to children, and is useful alongside other therapeutic techniques (Harnett & Dawe, 2012). Mindfulness has been shown in children to: increase positive affect and reduce aggression (Schonert-Rechl & Lawlor, 2010); reduce intrusive thoughts, emotional arousal and ruminations (Mendelson et al., 2010); and decrease symptoms of depression and anxiety (Liehr & Diaz, 2010). This book incorporates three mindfulness exercises developed for children: a mindful experiment, mindful breathing, and mindful eating.

Progressive muscle relaxation

Relaxation has been found to be effective in relieving stress in children (Chiang, Ma, Huang, Tseng & Hsueh, 2009; Lohaus, Klein-Hebling, Vogele, & Kuhn-Henninghausen, 2001). Progressive muscle relaxation involves the tensing and relaxing of muscles and is a technique the child can learn and apply themselves as coping strategies (Lohaus et al., 2001). Relaxation exercises promote through the increase of cortical blood flow, the consequent activation of the cortical structures and the down-regulation of stress responses (Siegel, 2010). The relaxation exercises can be used discreetly anywhere, such as the squeezing of hands by the child's sides, or

underneath their desk, allowing them to feel a sense of control at managing their emotions (Lohaus et al., 2001). This book, incorporates three different relaxation activities, which can be alternated, or provide different levels for different ages.

Thought records

Identifying and categorising thoughts and feelings can be challenging for children (Friedberg, Crosby, Friedberg, Rutter & Knight, 2000). A cognitive behavioural technique of approaching thoughts and feelings following trauma in children is a thought record (Friedberg et al., 2000). A thought record has proven very effective in adults in recognising automatic thoughts and how to modify them (Sharf, 2012). Thought records have been found to be effective with children too, although they need to be simplified to avoid boredom and the child becoming overwhelmed (Friedberg et al., 2000). The thought record included in the book is a simplified version of an adult targeted thought record, with the aim of identifying thoughts and negative beliefs (Friedberg et al., 2000). By identifying the situation, the thought and the feeling, adults, the therapist, and even the child themselves can recognise patterns and modification can then follow (Sharf, 2012). This can foster a sense control over the child's thoughts and feelings (Friedberg et al., 2000). It also encourages the child to see their thoughts and feelings more objectively, and provides a useful coping strategy that can continue to be used post-therapy (Friedberg et al., 2000).

Appendix A

Instructions

1. The book can be used in any setting where the child may need to communicate their feelings, however a situation with fewer distractions is ideal so that communication takes place in a "safe" environment.
2. Encourage the child to read through the faces to decide how they are feeling today. The child may take some time to do this, and sometimes the child may pick more than one face or feeling.
3. Encourage the child to read the information written specifically for them. This helps to normalise their feelings and to foster a sense of control over regulating them. Adults can read the information provided for them to understand how the child needs may be met.. At the bottom of the page (in the "what you can do" section) there is a list of the tools within the book which are considered to be helpful for that emotional state. While it is beneficial for these strategies to be taught in therapy first, it is not necessary. Some of these require an adult to read a script (e.g. mindfulness), and for some it may be nice to do it together. This builds attachment. As the child gets to learn the strategies, they can do them by themselves, anywhere, anytime.

   Please note: For **younger children**, the book should be used by an adult (caregiver, teacher, therapist etc.) as a guide to understanding how the child is feeling, and a way to open up a dialogue with the child. Some of the mindfulness exercises may be beyond what a young child can manage comfortably, and so should be used tentatively.

4. If child is still struggling, the phone number is available within the booklet for Kids Helpline. It is also recommended in certain instances to seek assistance from the childs therapist.
5. The diary at the back can be used to record what has worked, or not worked, for the child each use. This is helpful for adults or the therapist to know what has been effective in the past, and to recognise any patterns that are emerging.
6. The child can redo steps 1-3 as needed throughout the day in various settings to communicate their thoughts and feelings to adults, or to utilise the strategies to manage symptoms themselves, fostering a sense of control over their emotions and behaviour.

Appendix B

The tool:

“I AM FEELING…..”