The management of childhood stress

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This article centres on the psycho-educational management of childhood stress with special reference to children in the primary school (i.e. middle-childhood years [7-11 years]), which necessitates a clear understanding thereof. Stress in its negative form can be abuse-related and manifests negatively within children even well into their adulthood years. Literature on the phenomenon of childhood stress reveals several explanatory theories, yet, when children experience stress it calls for a different perspective and necessitates a different approach to its management, based on developing the whole child. Conclusions and guidelines for managing childhood stress can assist teachers and health professionals in its identification and intervention, especially regarding abuse-related stress.

INTRODUCTION

For centuries the primary cause of death among humans was infectious diseases. Recently a more pervasive cause of death has emerged, namely, stress. Stress is universal and pervasive and affects people of all ages and cultures. As Woodbridge (1998:46) notes, "[stress] affects everybody – children, adolescents and adults". Given this universality and pervasiveness of stress (Lewis 2009) humans also experience the phenomenon differently due to several factors and lead one to deduce that people of distinctive cultures, gender and age (cf. Booyse 1993; Kruger 1992; Klos 2003) experience stress differently.

This applies to the South African context − stressors unique to South Africa have a distinct impact on the general population and will thus be perceived and experienced differently. Factors such as the influence of and unique experience of HIV and AIDS, poverty, gender discrimination, abuse and violence (Are any other issues covered? Sa: online), to name a few, cause distress directly and indirectly (Gibson 1994:2-6) on children's and their families' lives (Chapman, Dube & Anda 2007:359), and also on the whole spectrum of the South African inhabitants.

Stress, in its negative form, can impede the holistic development of children (Donald, Lazarus & Lolwana 2006:239) even well into adulthood (Chapman *et al*. 2007:359). If childhood stress, such as abuse-related stress, goes unchecked and unmanaged it could lead to emotional, behavioural and learning problems and even disorders (American Psychiatric Association 2000 [DSM-IV TR]) prevalent during and after childhood, influencing those systems that influence the child. It has been found that adults, who have been abused as children may respond negatively to elevated levels of stress both at a physical and emotional level placing them at risk of maintaining and being susceptible to mental and physical disorders. Given the observations by Burns (in Woodbridge 1998:46) and Nucho (1988:5) of the pervasiveness and epidemic proportions of stress-related illnesses among western adults as well as Humphrey's (1988b:1) observation that many problems of stress among adults are the result of a stressful childhood, its effective management, starting from a young age, is essential. It is therefore imperative to understand childhood stress, especially in its negative form (e.g. abuse-related stress) and to manage it effectively. Teachers, counsellors, educational psychologists and other health professionals who are at the forefront of interaction with children at schools and related settings should apply ways of dealing with the effects of stress. To Chapman *et al*. (2007:360) "adverse childhood events [such as trauma, violence and abuse-related stress − A.L.] are sets of modifiable risk factors, and intervening to reduce these risk factors may have far-reaching implications in terms of mental health promotion and mental illness prevention". To Romano (1992:200) "educators can relate stress theory to specific stress management techniques that can be taught to [learners – A.L.]. Counsellors and other mental health specialists can serve as consultants to the classroom teacher [and parents – A.L.], because the theory and techniques may be unfamiliar to the classroom teacher [and parents − A.L.]". However, management programmes for

childhood stress are usually generic and generally do not consider factors such as the child's developmental level from a holistic and systemic point of view (Lewis 2003). Thus, an understanding of the phenomenon and the identification of developmentally appropriate intervention programmes that address childhood stress are necessary, especially when the cause and effects are distressing to the child.

This specific field of stress research (i.e. childhood, and more specifically middle-childhood) and its understanding and application have not been researched at length in South Africa. Lewis (2003, 2009) has explored the phenomenon regarding the South African context, but these have been initial, exploratory studies making predominant use of western sources with limited applicability to the South African setting. This article aims to share this exploratory literature overview pertaining to the management of childhood stress of the whole child (physical, emotional, social, conative, spiritual and intellectual), both in its positive as well as negative (e.g. abuse-related stress) forms with the intention of exploring the phenomenon, and possibly stimulating further research in South Africa. It goes from the premise that this holistic understanding can assist those dealing with childhood stress, especially trauma and abuse-related stress that is prevalent in South African society.

RESEARCH METHOD

The phenomenon and management of childhood stress within the psycho-education realm is to be investigated qualitatively, which will entail a literature study of the phenomenon of stress, pertaining more specifically to the middle-childhood phase. Furthermore, an assessment will be conducted on stress management programmes, focusing specifically on childhood, with a suggested intervention approach based on these findings.

The first step in managing childhood stress is to understand the nature of childhood stress management from a psycho-educational perspective, which will take the form of a conceptual analysis of relevant concepts.

STRESS

The *Heinemann English Dictionary* (Harber & Payton 1979, Sv "stress") indicates that the term stress is derived from the Latin word, *strictus*, literally meaning "to draw tight." Although it has several relevant meanings, a meaning particularly relevant to this research refers to "emotional or intellectual pressure or tension", in other words, emotional or intellectual "tightening". Several theories appear in the literature, which help to understand this phenomenon:

General Adaptation Syndrome (GAS)

Dubbed the "Father of Stress" (Humphrey 1993:13), the Austrian-born doctor of medicine and endocrinologist, Dr Hans Selye suggested a three-stage model in an attempt to understand the body's physical reaction to biological stressors. To Hencke (1995:1) "the stress that Selye described and studied was a physiological adaptation process to noxious physical stimuli." Stress, to Selye, involves a mobilisation of the bodily resources in response to some sort of stressor. In his work, entitled *The Stress of life*, (1976), a revised version of his 1956 work, Selye (1976: xv) notes that "[l]ife is largely a process of adaptation to the circumstances in which we exist .... No one can live without experiencing some degree of stress all the time" and that "[t]he same stress that makes one person sick can be an invigorating experience for another" (Selye 1976:xv). Selye (1976:64) defines stress operationally as: "...the state manifested by a specific syndrome that consists of all the non-specifically-induced changes within a biologic system." To him: "... essentially [stress is] reflected by the rate of all the wear and tear caused by life" (Selye 1976:xvi). Selye further states that each demand on the body is unique in that there is a specific response: when we are cold, we shiver; when we are hot, we perspire; an immense muscular activity elevates the demands upon the heart and vascular system. Stress becomes dangerous when it is abnormally prolonged, occurs too frequently and focuses on one particular organ of the body (Woodbridge 1998:48). Hence, Selye (1976:36) developed his General Adaptation Syndrome (GAS) model to explain stress. The three stages identified by Selye (1976:1, 38) being: alarm; adaptation or resistance and lastly, exhaustion and collapse. This latter phase implies burnout.

In his theory, Selye (1976:74) differentiates between a harmful or unpleasant variety of stress, called *distress*. Opposed to this he identified *eustress*, or good stress. Abuse-related stress would be an example of the former and a regular examination would constitute the latter. According to Selye (1976):

During both eustress and distress the body undergoes virtually the same non-specific responses to the various positive or negative stimuli acting upon it. However, the fact that eustress causes much less damage than distress graphically demonstrates that it is 'how you take it' that determines, ultimately, whether you can adapt successfully to change.

The Life Change Model (LCM)

The Life Change Model (LCM) of Drs Thomas Holmes and Richard Rahe explains stress as being the result of the changes in a person's life, large or small, advantageous or detrimental. One traumatic event or continual abuse-related stress may be detrimental to children. The collection of small changes can thus be as powerful as the cumulative effect of one major stressor (Sparrow 2007:398). Holmes and Rahe (1967:213-218) devised a "Social Readjustment Rating Scale" to measure the impact of life changes. Numerous events were rated in terms of the amount of readjustment necessary. For each life event, these researchers ascribed a numerical value that compared to its intensity as a stressor. These "stress potential" values are referred to as "life change units". The maximum value was ascribed to the death of a spouse (100) while the minimum value of 11 was ascribed to minor violations of the law (Patel 1988:31-32).

The Transaction Model (TM)

In his work, entitled *Psychological Stress and the Coping Process* (1969), Richard Lazarus formulated the Transaction Model (TM) in that stress occupies neither the person, nor the situation alone, but a transaction between the two. According to this model, an understanding of a person's perception or interpretation of a stressful event is important (Feldman 2001:432).

Perceptions are influenced by, amongst other things, age, gender and culture (Lewis 2001:272-288) thereby impacting on the experience of stress (Chandler 1981a:164-168; Chandler 1985a:10-14; Freedman, Gluck, Tuval-Mashiach, Brandes, Peri & Shalev 2002:404-413) and how stress is perceived. It is therefore inferred that stress will be perceived differently by people of different cultures, social settings, genders and ages and attention should be paid to this aspect. Since a person thinks and behaves in accordance with the way he or she perceives (Lewis 1999; Lewis 2001), each person will espouse their own characteristic way of coping with stress, children included (cf Chandler 1981:164).

Conservation of Resources Model (CRM)

A model of stress that has recently come to the fore is that of Prof Stevan Hobfoll of the Kent University, Ohio, referred to as the Conservation of Resources Model (CRM) expounded in his monograph, *The Ecology of Stress* (1988). Here Hobfoll (1988:25) defines stress as "a reaction to the environment in which there is either (a) the threat of a net loss of resources, (b) the net loss of resources, or (c) the lack of resource gain following investment of resources." Hobfoll therefore conceptualises stress in terms of the potential loss of resources (e.g. material, family, friends, and personal characteristics) that may be experienced through a stressful situation (Romano 1992:199). Children being abused by their own parents may experience several forms of resource loss (e.g. their own identity and even their caregivers being jailed).

Childhood Stress Theories

Childhood theories of stress developed from these previously mentioned general theories in some form or another with similar general principles. As Table 1 indicates, childhood stress theorists tend to adhere to three main theories on stress: GAS, LCM and TM, and to a lesser extent on CRM, albeit singularly or making use of several of the general stress theories.

Table 1: Childhood stress theorists

Theorist	General theory/ies adopted			
	GAS	LCM	TM	CRM
James Humphrey	✓	✓	✓	
RS Lazarus & JB Cohen			✓	
Edward Schultz	✓		✓	
Louis Chandler		✓	✓	✓
L Zegans	✓			
T Moore		✓		

Source: Lewis (2003)

These principles of childhood stress are necessary in understanding a management programme specifically suited to guide children in the M-C phase.

PSYCHO-EDUCATIONAL

This term refers to psychological aspects of learning and behaviour as they occur in an educational context. According to Van den Aardweg and Van den Aardweg (1988, sv "Psychopedagogical"), it is the examination of the child or a study of how the child functions in the home or school setting under the assistance and injunction of educators (either primary or secondary).

CHILDHOOD

The concept of 'child/ren' is a broad term ranging from ±2/3-11 years of age, characterised by different developmental phases (Van den Aardweg & Van den Aardweg 1988, Sv "affective development", "cognitive development"). In this paper the focus will be on children in their middle years of childhood (M-C phase) encompassing the ages ±7-11. The relevance of this aspect to this article is observed by Prinsloo, Vorster and Sibaya (1996:32):

> [Children's] experience and behaviour are always dependent upon a specific level of physical, emotional, cognitive, normative and social development. At different age levels, children also differ in their involvement and giving meaning to relationships, in their learning and their becoming.

Therefore, it is firstly necessary to highlight these developmental characteristics. The spiritual component is also important and will be viewed as evident in all of the above. These categories will ensure that the child in this phase is understood holistically and systemically.

M-C is generally referred to as the primary school phase (Feldman 2001:316) and usually commences with the child entering formal schooling. Physical development to Humphrey (2003:73) "is concerned with the child's physical ability to function at an increasingly higher level", and is influenced by heredity, nutrition, health care and exercise − to name but a few – and maintains a slow, steady pattern throughout these years. By means of the body, the child engages with the world (Du Toit & Kruger 1991:28-29), which invariably influences his or her perceptual schemata, thereby influencing emotions, thinking and behaviour (cf. Lewis 1999). Any sensory,

physical, neurological (Du Toit & Kruger 1991:29), abuse-related (Chapman *et al.* 2007:360) and socio-cultural challenges (Feldman 2001:317) could therefore obstruct the child's physical development and cause childhood distress even into adulthood (Chapman *et al.* 2007:360). To Mash and Wolfe (2005:416) "acute and chronic forms of stress associated with maltreatment may cause [negative − A.L.] changes in brain development and structure". Furthermore, physical abuse, neglect and sexual abuse can cause slowed growth and immature physical development.

Cognitive development in this context refers to the development of a child's mental ability to engage in thinking, conceptualisation, reasoning, interpretation, understanding and insight, knowledge acquisition, remembering, organising information, problem-solving and analysis (cf. Mwamwenda 1995:89). To Piaget, children in their M-C are in the concrete-operational period of cognitive development. This implies applying logical operations to concrete problems in contrast to symbolic and abstract concepts that are shaped at some stage in adolescence and adulthood. Vorster (1996:46) maintains that the earlier part of M-C is characterised by great advances in thought development with the latter part of this phase characterised by more flexibility and adaptability. The non-attainment of certain cognitive abilities may result in the child's negative experiencing and perception of his/her intellectual abilities, which can influence their emotional and social development, thereby causing distress (Lewis 2003). Abuse and trauma and other anxiety-related stress circumstances may cause several cognitive disturbances in children including interference with academic performance, academic delays, attention biases and other cognitive errors (Mash & Wolfe 2005:416,419).

Emotional development entails children's growing appreciation and control of their emotions (Prinsloo *et al.* 1996:113). Children in the M-C years reflect a better sense of emotional maturity and development, generally with a perceptible change from helplessness to independence and self-reliance. Generally they also show greater emotional differentiation and flexibility. Children in the early part of M-C are still fairly egocentric and emotionally inflexible, yet with a better intellectual control of their own emotions and better comprehension of the emotions of others

(Vorster 1996:46). However, several factors can cause possible emotional distress: being humiliated at home and school causes fear and distrust; gender stereotyping (boys showing emotion by crying and girls showing aggression and both being subsequently teased for this) inhibits the expression and development of genuine emotions; rejection by peers and family and the influence of factors such as crime, HIV and AIDS, parental unemployment, child abuse and other forms of violence (Prinsloo *et al*. 1996:113-114) which may cause emotional challenges such as anxiety and depression. Furthermore, physical abuse, neglect and sexual abuse may cause social incompetence, withdrawal, dependence and challenges in social sensitivity (Mash & Wolfe 2005:419).

Conative development refers to the central driving forces which give rise to the child's behaviour and includes their needs, tendencies, impulses, aspirations, motives, aims, wishes and the will (Van den Aardweg & Van den Aardweg 1988, Sv "Conative development"). In the M-C years, the focus is on the fulfilment of social, personal needs and aspirations with a longing for accomplishment becoming very apparent (e.g. appreciation, approval, independence, group recognition, love, safety, aesthetic and ethical aspirations, challenges and adventure). This relationship results in the child being confronted by a number of choices, which can at times lead to conflict situations and even distress (Du Toit & Kruger 1991:130). Failure and inability to succeed may harm a child's self-concept and lower his/her self-confidence (Lewis 2003:26) causing stress and even depression (Mash & Wolfe 2005:238-239).

Moral development refers to a child's cognitive ability to discern between right and wrong, just or unjust, and permissible and inadmissible behaviours within a specific community and society in which the child lives (Van den Aardweg & Van den Aardweg 1988, Sv "moral development"). This enables children to direct their behaviour in terms of these principles (Prinsloo *et al.* 1996:117). In the ealy part of M-C, children are more egocentric in their judgement and they find it difficult to generalise values. They also have limited development of conscience. During the latter part of this phase they are still egocentric, but lesser so. In order to actualise fully and to reach moral independence and responsibility, children, with the help of primary and secondary educators, learn to attribute logically

acknowledged meanings to moral, social and family norms (Du Toit & Kruger 1991:64-65; Feldman 2001). A lack thereof within the educative environment due to abuse and violence may result in negative meaning attribution to moral, social and family norms, thereby causing distress within the child (Mash & Wolfe 2005:416-417).

According to Prinsloo *et al.* (1996:120), the family remains the child's main support system and is the most important influence on the socialisation process in the M-C, satisfying both physical (e.g. sustenance and clothing) and psychological needs (e.g. emotional, protection and affection) (Mwamwenda 1995:56). The family forms a system of interacting elements that are influenced both on micro-, meso- and macro-levels and contribute towards the child's proximal relationships. However, the family is not the only influence on the child in the M-C phase due to the emancipatory nature of the child involved in this phase. The school and peers also exercise a profound influence upon the M-C's socialisation practice. The school introduces the M-C to a new set of norms and values relating to authority figures, learning material, as well as different friends and cultures (Prinsloo *et al.* 1996:120). The educator gradually plays a profound role in the child's life and becomes a prominent identification figure in the shaping of the child's self-concept (Du Toit & Kruger 1991:125). Non-acceptance by educators and peers, for example, can be detrimental to a child's socialisation process in M-C (Prinsloo *et al.* 1996:120-121) compromising their ability to form authentic relationships, thereby causing distress. Child maltreatment is one such stressor (Mash & Wolfe 2005:407).

STRESS MANAGEMENT FOR CHILDREN

Cotton (1990:3) views stress management as "the <u>identification</u> and <u>analysis</u> of problems related to stress and the <u>application</u> of a variety of therapeutic tools to alter either the source of the stressor or the experience of stress (emphasis – A.L.)". The latter definition does not emphasise the principle of control, an important aspect of management (Bartol & Martin 1994:6), which refers to the regulation of activities so that actual performance conforms to the expected aims and objectives identified in the initial stages of identification and analysis. Control, in this instance, does not

mean rigidity, but that there should be a certain amount of flexibility depending on the situation and context.

As was mentioned in the previous section, stress management theorists in general have tended to also posit stress management within these previously mentioned theoretical frameworks either singularly or compositely (cf Nucho 1988). Childhood stress programmes also maintain this stance with literature noting several limitations pertaining to the general management of stress as well as its application to children: the theory of stress is often not sufficiently discussed (cf Makin & Lindley 1991); there is an emphasis on either the physical or the psychological aspects of stress, in some instances both are recognised (cf Selye 1976); scant and in some cases no information concerning the child's developmental stages is provided (cf Schultz 1980; Romano 1992); programmes do not encompass the holistic aspect of human development and systemic interaction, and no mention is made of follow-up procedures of control (cf Chandler 1985a).

Literature (cf Schultz 1980:13-14; Hencke 1995:5; Grant & Grant in Humphrey 1988b:108; Humphrey 1988b:104-106; Nucho 1988:15; Humphrey 1993:22-24; Woodbridge 1998:46-57) provides several hints in planning and suggesting childhood stress management strategies, which are a cardinal aspect of a proposed management programme. Collectively these include: no single theory of childhood stress provides a panacea for the management thereof, yet, together they may; several factors influence an individual child's response to stress and include age and development level, gender, intellect, motivational factors; severity, longevity and emotional significance of the stressor; personal resources and control, prior experience; and support systems (micro-, meso- and macro-levels). This necessitates a holistic, multi-level and systemic view, and assessment and approach to prevention and intervention; changes in emotional and behavioural well-being are not dramatic, but rather focused on gradually increasing well-being and vitality; taking into consideration the uniqueness of the child, yet acknowledging commonalities; stress is a part of human and invariably, children's lives; helping the child and care-givers understand the nature of stress as well as ways of coping with and handling it as a lifelong coping skill, in other words, problem-solving skills, time management, nutrition, exercise,

relaxation, communication, and being kind to oneself are but some examples; children employ various coping strategies; taking into consideration the culture and values of the children and health practitioners; being consistent, yet flexible with the programme; providing exposure to a model, instruction, practice situations and feedback; that children learn to identify the early signs of extreme stress; the importance of paying attention to dramatic, emotional and behavioural changes before and after intervention.

The following holistic management programme model for children in the M-C phase is proposed and elaborated on by the researcher in the light of the previous literature analysis:

Step 1 – Awareness of the problem/ challenge

This step involves the care-giver becoming aware of stress in the child's life (through the various systems) and seeing its impact on the child, be it through a specific disorder, thinking patterns or behaviour and bringing him/her to a health practitioner such as an educational psychologist for support.

Step 2 – Identification and analysis

The nature and severity of the problem
Both the nature and severity of the problem/challenge, namely childhood stressors, have to be identified and analysed.

A first step in assessing the nature of the presenting problem would be ensured during the initial interview/s. Here, the reason for the intervention will be shared between the care-givers, therapist and child/ren. During the initial interview a biographical questionnaire will be completed by the therapist in co-operation with the care-givers and children (if they are old enough). Reasons and sources for the child's stress will be sought, starting firstly with possible environmental factors (physical problems [e.g. epilepsy, a skin disorder] and deficiencies [nutrition, exercise, rest] within the child and his/her environment, which could be placing stress on the child's body and ensuing behaviour. Physical signs of abuse may also, for example, be identified. If these have been explored and negated, possible psychological reasons are to be explored. In both instances, the sharing of knowledge about the phenomenon of stress with the child and the child's care-givers is essential so that they

understand its effect and so be empowered to deal with it in their and their child's life. If environmental factors are responsible for the stress experienced by the child, the child must be referred to a medical practitioner if need be. Also the police, if need be, in the instance of abuse, to ensure effective treatment including dealing with the stress. Follow-up therapy with the care-givers, other health professionals and the child can ensure the effective management of future stressful experiences.

If there are no apparent physical disorders and environmental deficiencies and even abuse, then aspects of the child's psychological being will have to be looked at. This involves analysing and identifying stressors in the child's life as well as the child's perception of stress by:

- Firstly, identifying those events and situations in the child's life that might cause stress. This involves identifying potentially stressful experiences in his or her life history and current circumstances. Arnold (1990:510) mentions two of the best known means of quantifying childhood stressors as being Axis IV of the Diagnostic Statistical Manual (currently DSM-IV-TR) scale and the Coddington Life Events Scales for Children and Adolescents. Other measurement scales include Chandler's (1981a:164-168) Children's Life Events Inventory as well as Johnson and McCutcheon's Life Events Checklist (LEC) (Johnson 1986:39-46). Chandler (1981a:166) notes that the Children's Life Events Inventory can be used as a checklist during intake or referral to be completed by the care-giver. Such an inventory assures the therapist that significant sources of potential stress will not be overlooked during the assessment.

- Secondly, as situations and events are stressful to an individual as so far his or her perception thereof, exploring the child's perception of those stressors is a critical factor accounting for the differential effects of stress. Here Chandler (1985b:44) suggests the use of projective techniques in exploring this aspect. Two such techniques being the Children's Apperception Test (CAT) and the Thematic Apperception Test (TAT). As Human Figure Drawings and Family Drawings are also two techniques that a child can use to express underlying concerns, anxieties, or conflicts, their use is

recognised in reflecting the individual child's perception of stressors (Skybo, Ryan-Wenger & Su 2007). According to Chandler (1985a:14), "Through [drawings] the child is often able to express fears, concerns, and perceptions that are impossible to verbalize." Children's play is also a means of gauging a child's interpretation of stressors and "may [even] mirror a child's distress (Chandler 1985b:81).

- Thirdly, by examining the child's perception of stress, the magnitude or impact of the problem can be gauged by appraising the pervasiveness of stress effects. Parents and teachers can contribute useful information about the child's behaviour at school and at home. A questionnaire for use by parents in this regard is the Structured Parent Interview (SPI) that exacts specific information on the impact of stress in major areas of the child's behaviour (Chandler 1985a:45; Sattler & Hoge 2006:626). The Strengths and Difficulties Questionnaire (SDQ) as a means of identifying certain aspects of the child's functioning that may have changed over time as well as within certain contexts (Goodman 1997:581-586) is also recommended. This brief checklist (25 items) is a useful instrument in the initial phase of assessment to be used by clinicians, researchers, teachers and educationalists. Mellor (2004:396) does note its use transcending the individual: "it thus assesses pro-social behaviour, subjective distress, and impairment at home, at school, and in peer relationships in leisure activities".

- Lastly, by looking at the behavioural response to stress, the amount of behavioural (mal)-adjustments can be determined. Several techniques can be used: Chandler, El-Samadony, Shermis and El-Khayib (1991:197-209) suggests the use of and completion by an adult of the Stress Response Scale (SRS) that reflects a profile of the child's typical behaviour pattern in response to stress, which in turn will guide behaviour management efforts on the part of care-givers and teachers.

Step 3 – Formulation of aims and objectives

After evaluating the nature and intensity of the child's stressors and the child's experience thereof, several aims and objectives will be

formulated based on hypotheses obtained from the previous steps.

Throughout this initial phase of the stress management programme, the principles of management, namely planning, organising, leading and control will be adhered to taking cognisance of being flexible in that diagnosis can also occur during the application of therapy.

Step 4 – Application of therapy programme

The next part of the programme involves the application of therapy techniques in ensuring that the aim and objectives of the programme are realised. This application, although largely individual, can also be in groups (cf McCaffrey 1993:131-156).

Once the stressors have been identified in the child, an intervention process can be formulated for the child and so commenced. In all these components it is important to consider the aim and objectives of the technique/s and their intended outcomes. Although the aspects of the holistic treatment model are discussed separately, they influence each other reciprocally and are inseparable. The application of treatment is also considered flexible and should be adapted to suit the child and context. These aspects will be discussed in the ensuing paragraphs.

Physical
Physiological responses caused by stressors can be addressed in several ways, depending on the individual case. Once the relationship between stressors and physiological responses has been presented, a discussion and demonstration of how the child can reduce the physiological impact can occur and include:

- referral to a medical practitioner or police in the case of abuse;
- prescribing medication by a medical practitioner;
- proper nutrition, physical activity and exercise, rest and sleep (cf Saunders & Remsberg 1984:172-185; Saunders & Remsberg 1987:151-163; Humphrey 1988a: 77-90; 1988b:96-104; Nucho 1988:131-139; New 2003; Lewis 2009:9);
- proper care, safety, support and shelter (Swick & Williams 2006:376; Sparrow 2007:400; Lewis 2009:9);
- somatic relaxation techniques, for example progressive relaxation, getting up and walking around; stretching and practising

yoga postures, engaging in deep breathing activities, exercising, athletic endeavours, finding a quiet place for solitude, lying down and resting (cf Schultz 1980:14; Humphrey 1988a:77-114; Hencke 1995:6-7; Texas Child Care 1995:22-26; Saunders & Remsberg 1984:94-102; Lewis 2009:9);
- diaphragmatic breathing (cf Romano 1992:200);
- biofeedback training (BFT) (cf Sue *et al.* 1997:214; Humphrey 1988a:145-156; Romano 1992:200). This is a therapeutic technique in which the child is taught to voluntarily control a physiological function (Sue *et al.* 1997:214). Humphrey (1988a:145) cautions that BFT be performed by and done under the auspices of one trained in this area, however, elementary concepts can be taught such as the awareness of hand and finger tension, muscle tension and heart rate (Romano 1992:200).

Cognitive
Cognitive intervention assists in the reframing of cognitive distortions in the appraisal of events. Such distressing thoughts include "all-or-nothing thinking", "perfectionistic thinking", "catostrophizing" and "self-punishing thinking". According to Romano (1992:201) "these and other distortions of thinking can create excessive stress, immobilise a person, and erode self-confidence." Ways of preventing these and other irrational thoughts and beliefs include:

- a thoughts diary (cf Romano 1992:201);
- thought relaxation, for example reading for pleasure, watching television, playing chess and relaxing games, creative writing, drawing, puzzles, sharing a story with someone, meditation, daydreaming (cf Schultz 1980:14; Chandler 1981b:277);
- cognitive appraisal of stressors and problem-solving (cf Forman 1993:92-103; Fallin, Wallinga & Coleman 2001:19; Lewis 2009:9);
- reframing negative thoughts (cf Saunders & Remsberg 1984:116-129);
- self-nurturing and positive self-talk (cf Nucho 1988:98-107).

Emotional
Managing childhood emotional distress includes:

- emotional support from significant others (cf Chandler 1981b:277);
- the importance of listening to what children say (Sparrow 2007:399);
- emotional relaxation, such as fantasy exploration, guided imagery experiences, positive memory recall, sense imagery (visualisation) activities, thought/feeling watching, thought/feeling sharing and role-playing feeling states (cf Schultz 1980:14; Romano 1992:200; Hencke 1995:6-7; Lewis 2009:9).

Social

For some children, many social situations are stressful. Social skills training helps children deal with interpersonal and social stressors, and include:

- the benefits of companionship (cf Fallin, Wallinga & Coleman 2001:18; Lewis 2009:9);
- social and life-skills training (cf Forman 1993:49-63; Lewis 2009:9);
- assertiveness skills (cf Forman 1993:64-78);
- social networks (Nucho 1988:141-153; Sparrow 2007:400).

Behavioural

Behavioural aspects include:

- ensuring structure in the child's life (cf Chandler 1981b:277);
- setting realistic goals (cf Chandler 1981b:277);
- developing self-discipline (cf Chandler 1981b:277);
- understanding consequential behaviour (X causes Y) (cf Chandler 1981b:277; Saunders & Remsberg 1984:138-149);
- systematic desensitisation (cf Humphrey 1988a:127-135);
- effective time-management (cf Nucho 1988:111-120);
- living a healthy lifestyle (cf Saunders & Remsberg 1984:172-185; Nucho 1988:121-129; Romano 1992:201);
- problem-solving (cf Saunders & Remsberg 1984:138-149).

Step 5 – Evaluation

Throughout this application of therapy, an evaluation of the therapy plan will be imperative. If certain objectives of the therapy plan are not realised, there will be a re-evaluation of the child and therapeutic intervention. If the objectives are attained, a discussion will be held with the care-givers conveying this information and if the need arises later for further therapy, a similar approach of management will be followed.

CONCLUDING REMARKS

In order to manage childhood stress effectively, the concept of stress and management has to be understood as well as the principles that underpin it. To manage stress efficiently requires identification and analysis, intervention and an assessment. Chapman *et al*. (2007:364) call for both a holistic, multi-systemic assessment and preventative approach when dealing with "adverse childhood experiences" such as forms of abuse to and by children "...as a means of reducing risk for diverse negative mental health outcomes". Sparrow (2007:400) avers this and calls for an awareness of the multi-directionality of stress.

An analysis of stress management programmes in general and their specific application to children has shown several limitations and shortcomings with regard to the general management principles. What has emanated is a need to design a holistic stress management programme that takes into consideration the holistic development and becoming of the child according to the principles of effective stress management. In keeping with this philosophy, a holistic stress management programme was put forward in accordance with the psycho-educational principles. From this literature study, several guidelines are advanced:

- In order for childhood stress to be understood, children should be understood in the light of their holistic development and becoming.
- No single theory of stress is to be considered omnipotent, but they should be used collectively in understanding the pheno-menon of stress.
- Stress can be either positive or negative and manifests itself physically or psycho-logically at micro, meso and/or macro level.
- Although childhood stress is based on general stress theories, it has its own distinctive characteristics.
- In order for children's stress to be managed efficiently it should take into consideration the main tenets of stress management theories as well as the child's holistic development and becoming.

- A generic approach to stress management in children is not recommended. The developmental phase determines the type of stressor evident in the child and it is therefore imperative that the specific developmental phase that the child is in is taken into consideration.

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