

When men and mountains meet...:

The role of eco-adventure in the facilitation of resilience.

Preamble: Thoughts on terminology

Gillis and Ringer (1999) define adventure therapy as, "... the deliberate, strategic combination of adventure activities with therapeutic change processes with the goal of making lasting changes in the lives of participants" (p. 29). Beringer and Martin (2003) argue for the use of the term eco-adventure therapy (p. 37) in acknowledgement of the important role that a person's relationship with the environment, both socio-cultural and biophysical, play in these interventions and indeed in all forms of adventure therapy.

An important point to consider is that the terms 'adventure therapy' and 'eco-adventure therapy' are currently used in literature to describe what has become somewhat of an eclectic field representing diverse philosophies, programs and practices. Even with regard to what constitutes 'therapy', there is an ongoing debate and degree of controversy. It is our understanding that the term 'therapy' is generally considered to represent a rather tightly defined area of practice, most often indicating a form of treatment designed to relieve or cure an illness, disability or disorder. As this lies outside of the objectives of the current paper, a conscious effort was made to steer clear of this term. It does however still occur in the introductory section as it pertains to practices described in current literature on adventure interventions. It is important to note that an activity or intervention do not have to be classified as 'therapy' in order to be 'therapeutic' (therefore facilitating a change toward a healthier state of functioning). In accordance with recent literature in this regard, the interventions involved in this paper could therefore be described as therapeutic eco-adventure (TEA), as this constitutes a more accurate representation of the group intervention programmes discussed here as being aimed at the facilitation of resilience, and the promotion of the bio-psycho-social health and well-being of individuals in Southern Africa.

Health and well-being: Global and local concerns

While traditional health care has done well in combating various forms of infectious disease and pathology, it has struggled to remain relevant in a rapidly changing environment. Living in the third millennium means having to contend with lifestyle changes brought on by the explosion of new information, and rapid rates of industrialization and urbanization (Maller, Townsend, Pryor, Brown & St Leger, 2005). The fact that higher rates of divorce, violence and poverty have been reported over the past three decades than ever before (Zolkoski & Bullock, 2012) points to the fact that, as health care professionals, we should do better. The stress associated with these lifestyle changes has become a global problem and has been shown to constitute a growing risk factor for development of non-communicable diseases, such as cardiovascular disease, cancer, chronic lung disease and diabetes (WHO, 2013).

Much of the current concern about the effectiveness of global health care relates to evidence that even the so-called Evidence-based interventions (EBI's) is less that effective in dealing with these challenges. In this third millennium, where the clichéd expression, "Faster! Higher! Further!" seems to have become our reality, the capacity of the helping professions to slower, lower and closer. This is evidenced by large generational increases that have been observed in various forms of pathology, and particularly psychopathology, in western samples (Twenge, Gentile, DeWall, Ma, Lacefield, & Schurtz, 2010). Unfortunately, results from recent local studies like the THUSA (Malan et al., 2012), PURE (Teo, Chow, Vaz, Rangarajan, & Yusuf, 2009; Pisa, Behanan, Vorster, & Kruger, 2012) and SABPA (Mashele, Van Rooyen, Malan, & Potgieter, 2010) suggest that the South African context offers no exception to this international trend.

Psychology: A discipline in crisis?

Are we doing enough? Is what we are trying to do effective? In his attempt to address this question, Seligman (2006) refers to the 65% barrier when considering both the percentage of clients who report symptom relief due to psychotherapy, and the percentage of relief that they experience from their symptoms. This seems like a reasonable success rate, until it is contextualized by a placebo-effect ranging between 45 and 55%, depending on the relevance of the placebo. It is therefore not surprising that, in his 'State of the Science' article published recently, Kazdin (2015) eludes to the fact that Psychology may be described as a discipline in crisis. It has indeed attracted growing criticism since the turn of the century (Goldberg, 2000) for a number of reasons, including:

1. The lack availability of psychological services. Kazdin (2015) highlights an alarming scarcity of mental health professionals and psychological services for those most in need of treatment, including children, the elderly, ethnically diverse populations and those finding themselves in remote rural areas.
2. Substantive concerns regarding the palpable impact of the 320 or so existing evidence based psychotherapies (EBP's) (United States Department of Health and Human Services [USDHHS], 2014). According to this report, after decades of research we remain largely uninformed regarding whom a given EBP is likely to be effective for, and how to use information at our disposal to guide us when making clinical and treatment-decisions, mainly due to serious methodological concerns regarding existing studies.
3. The traditional emphasis on individualism/anthropocentrism. Psychology's effectiveness in improving the functioning of individuals and society has been questioned, especially within countries like South Africa, which is characterized by a mixture of individualistic and more collectivistic cultural groups. Existing EBP's have been developed, implemented and evaluated in Western contexts, raising concerns regarding their applicability in more diverse cultural contexts (Berry, 2013; Goldberg, 2000).
4. Psychology has been criticized for being overly pessimistic and reductionistic (Goldberg, 2000). Due to its traditional focus on the pathological/medical model, which emanates from the curative paradigm still dominating the health professions, therapy has proven too costly in contexts with little resources; therefore not available to large and diverse groupings of unserved individuals.

5. Psychology has also been criticized for not remaining relevant to the broader, relatively 'healthy' population (Seligman & Csikzentmihalyi, 2000).

The implications of this is illustrated in very practical terms by Kessler et al. (2009) who found that 25% of US citizens meet criteria for at least one psychiatric disorder, and that approximately 70% of these individuals do not receive any form of treatment. Clearly, the dominant treatment delivery characterized by individual, one-to-one in-person treatment by a highly trained mental health professional need to be reconsidered. It therefore seems both timely and justified for novel, integrated models of intervention to be considered and empirically evaluated (Annerstedt & Währborg, 2011; Kazdin, 2015). This is in line with a call, now almost a decade ago, from the WHO for psychology to evolve with the populations that is it serving, and for interventions that will effectively promote health and optimal functioning in individuals, communities and whole populations. These interventions should make optimal use of resources within individuals and the environment, and aim not only to combat disease after diagnosis, but to prevent it from occurring (WHO, 2004).

So then, where do we start? Seligman (2006) offers one possible avenue when referring to clinical psychology and psychiatry as professions of firefighters. He goes on to suggest for these professions to regain their focus on fire prevention.

Psychological well-being and the strengths-based approach

One relatively recent development within psychology that has embraced this challenge and has indeed flourished since its 'birth' more than a decade ago (Seligman & Csikszentmihalyi, 2000) is the movement of positive psychology (Seligman, Steen, Park, & Peterson, 2005; Donaldson, Dollwet, & Rao, 2014). Within this movement a total of +/- 160 interventions have been developed (Sin & Lyubormirsky, 2009), aimed at not only the alleviation of pathology, but also the enhancement of psychological well-being and physical health (Ryff & Singer, 2008). Identified as 'psychology's forgotten mission' (Seligman, 1998), an area of particular interest within positive psychology is the identification, building and effective use of character strengths that would help to prevent the occurrence of pathology, disease and infirmity. As put by Seligman (1998),

"We have discovered that there are human strengths that act as buffers against mental illness... Much of the task of prevention in this century will be to create a science of human strengths whose mission will be to understand and learn how to foster these virtues in young people." (p. 2).

The etiological factors associated with disease, and focusing on the treatment of human psychopathology, which has come to be referred to as the 'problem and deficit-focused paradigm' (Berman & Davis-Berman, 2005) which has dominated the profession of psychology since WW II, has made way for researchers to start focusing on individual, interpersonal, community and cultural factors that could interact with existing risks and resources, and influence health-promoting behaviour (Ahern, Kiehl, Sole & Byers, 2006). In the search for such protective factors that would not only prevent the occurrence of pathology, but also enhance the health and well-being of individuals, the term 'resilience' has become an important mental health construct (Brennan, 2008).

The 'WHAT': Resilience

Resilience is not a new concept, but one that has attracted increasing research attention because of the increasingly challenging environments, as described above, that individuals are faced with. Defined broadly as 'a pattern of positive adaptation in the context of past or present adversity' (Wright & Masden, 2006), resilience has come to be conceptualized in various ways. Early conceptualizations viewed resilience as a set of personal traits or attributes that lead to positive outcomes like successful adjustment and well-being despite the presence of adversity (Ahern et al., 2006; Tedeschi & Kilmer, 2005). Personal attributes like motivation, intelligence, confidence, problem solving, self-regulation and forward thinking were found to contribute strongly to an 'adaptive toolkit' of skills that lies **within us** enabled children from disadvantaged backgrounds doing better than expected (Masten, 2013). More recently, however, there has been a realization that resilience cannot be thoroughly understood, nor significantly improved by only focusing on individual level factors such as psychological strengths. According to Gilligan (2001), as quoted by Ungar (2006), "the degree of resilience displayed by a person in a certain context may be said to be related to the extent to which that context has elements that nurture this resilience" (p. 94). This has necessitated researchers to also consider that resilience goes beyond the sum of an individual's risks and assets, and also involves contextual aspects like capable parenting, effective schools, communities and cultural practices, or that which **surrounds us**. Thirdly, it also involves a dynamic process of adaptation reflecting a person's "need to take proactive and reactive measures in the face of adversity. A person's capacity to be resilient promotes the recognition and acknowledgement of adversities, allowing the affected person the time, energy and resource investment to recover, rebound and return to equilibrium" (Kotzé & Nel, 2013, p. 3). Resilience therefore also involves the ways in which individuals access sources of support, and how a person engages others. This depends on qualities like empathy, sociability, warmth, expressiveness, and the ability to ask for help, or access social support; therefore that which happens **between us**. It is also necessary to distinguish between different types of resilience. **Status quo resilience** refers to a person's ability to regain their shape, or getting back on their feet after suffering a significant setback; bouncing back so to speak. **Transformational resilience** on the other hand refers to being able to take advantage of change, in order to transform, change shape, grow and be able to function better in your environment. More than merely bouncing back, this can be equated to bounding forward. This makes resilience also very much about what is **beyond us** (Masten, 2013).

As Ungar (2008) states, there is much overlap between these conceptualizations, and each of them is supported by a substantial body of literature. Rather than attempting to solve the debate on the conceptualization of resilience, we will adopt the following inclusive and multidimensional definition of resilience formulated by Windell, Bennett and Noyes (2011) after their systematic review of research articles on resilience and its measurement:

"Resilience is the process of negotiating, managing and adapting to significant sources of stress or trauma. Assets and resources within the individual, their life and environment facilitate this capacity for adaptation and 'bouncing back' in the face of adversity. Across the life course, the experience of resilience will vary." (p. 163)

This implies the capacity to face, overcome and be strengthened and transformed through experiencing adversity, and the ability to embrace difficulty and reframe it as a learning experience (Grotberg, 1996).

As researchers, a couple of key questions arise:

1. Do we need more of it? Considering the above, the answer is a definite YES; there is a growing certainty that individuals, communities and countries would benefit from developing resilience required to better handle risks and challenges BEFORE they strike.

2. Can resilience within the person and context indeed be facilitated, and if so, can this happen in the absence of significant risk or adversity? Support for an affirmative answer can be found in the relatively recent development of a number of strengths-based interventions, which have produced promising results in western contexts, not only in terms of reductions in common mental and behavioural problems, but also in fostering a broad range of positive outcomes, including increased resilience and well-being in a variety of contexts, ranging from schools (Huppert, 2009; Proctor, Tsukayama, Wood, Maltby, Eades, & Linley, 2011) to the military (Chittick, 2016). It should therefore be noted that, although the identification of resilience requires the presence of significant stress and trauma, there has been growing acknowledgment for the fact that the assets, resources and processes mentioned by Windell et al. (2011) can be developed outside of times of risk and adversity. In fact, Kotzé and Nel (2013) state that “positive psychologists now recognize that resilience involves everyday skills and psychological strengths that one can identify, measure, maintain and nurture in people of all ages and psychological conditions.” (p. 1). The effectiveness of these strengths-based approaches are however only beginning to be explored within the South African context, with recent studies showing promising results (Van Zyl & Rothman, 2012). Ungar and colleagues (2005; 2012) in particular have been interested in finding, and evaluating novel ways of building resilience.

The ‘WHERE’: Nature-assisted intervention

A development that has recently attracted much attention in international research as an innovative approach toward both the treatment of psychopathology (Corazon, Stigsdotter, Jensen, & Nilsson, 2010; Annerstedt & Währborg, 2011) and the facilitation of well-being and optimal functioning (Hinds & Sparks, 2011; Johnsen, 2011) is that of nature-assisted therapeutic intervention. The psychological benefits of being in nature have received increasing attention as an intervention that is both affordable and effective at population level (Maller et al., 2005). Rooted in the biophilia hypothesis (Wilson, 2002), which states that we have an “innate tendency to focus upon life and lifelike forms, and in some instances to affiliate with them emotionally” (p. 134), recent studies suggest that our well-being is strongly influenced by this innate, biologically programmed tendency to connect with nature (Hinds & Sparks, 2011; Jordan, 2009). Among the early indications of the effects that nature might have on our psychological and biological functioning are studies that found that outdoor living improved the condition of psychiatric patients (Caplan, 1967), and that a view of nature from a hospital window improved patients’ post-surgery recovery (Ulrich, 1984). Increasing calls for a more systematic incorporation of nature into psychological interventions as a post-modern experiential approach have led to the development of ‘nature-assisted therapy’ as an umbrella term for interventions based on experiences and activities in a nature setting, which is specifically designed to support the improvement

of psychological well-being. Frameworks and theory that have subsequently been developed (Berger & McLeod, 2006) have yielded positive results (Annerstedt & Währborg, 2011; Hinds & Sparks, 2011; Johnsen, 2011; Corazon, Stigsdotter, Jensen, & Nilsson, 2010; Walsh, 2011). Some explanations for the effectiveness of nature-assisted interventions in both the reduction of pathology and enhancement of well-being have been offered, and include the following:

a) Nature provides a 'break' from client's familiar and demanding urban environment and the associated attention fatigue and stress. Because of its unfamiliarity, the natural environment can assist participants adopting and considering new perspectives on issues in their lives (McKenzie, 2000).

b) Nature provides an ideal environment for change to occur. The constructive levels of stress and challenge, a sense of the unknown, and the perception of risk (McKenzie, 2000, p. 20) often serves to motivate personal growth and the willingness to take the initiative.

c) In contrast to the psychologist's consultation room, which is most often a static context that is controlled by the therapist, the natural environment can be used as an independent setting that indeed acts as a dynamic partner, bringing a new dimension to therapy, and helping to shape the therapeutic process (Berger & McLeod, 2006).

d) The natural environment offers an ideal context to demonstrate, through creative metaphor, the dynamic interaction between person and environment, and its implications for well-being. This may include the use of sensory experiences, horticultural activity, nature-related stories and symbols and adventure activities (Corazon et al., 2010).

e) Nature has healing qualities in itself. Contact with the natural environment has spiritual and aesthetic properties that facilitate restoration and change (Frumkin, 2001; Maller et al., 2005). Irrespective of the therapeutic approach, time in nature creates a state of positive affect that, according to Fredrickson and Joiner (2002) is essential for growth, development and eventual self-actualization.

In a review of empirical, theoretical and anecdotal literature, Maller et al., (2005) importantly conclude that nature should be considered as more than a mere novel setting for psychotherapy, and that contact with nature can be considered as an 'important upstream health promotion intervention' (p. 45) that can effectively facilitate optimal functioning at individual, community and population level. Developers of public health policy in resource-scarce contexts are therefore increasingly being challenged / encouraged to examine the potential of so-called 'ecological' solutions alongside the clinical and behavioural interventions that have been developed thus far (Baumgardner & Crothers, 2010), and that unfortunately often only benefit those that could afford it.

The 'HOW': Adventure therapy

According to Jordan (2009) contact with nature offers therapeutic benefits on two levels: 1) By the person passively receiving restorative benefits of nature by just spending time in a natural environment, or 2) by active engagement with nature, where the resources offered by the natural environment is actively utilized in the therapeutic process. Active engagement (play) within the natural environment has long been argued to be beneficial for children and adults (Brown & Vaughn, 2009; Dubos, 1980; Orr, 1993). Grouped together under the highly controversial term of Adventure therapy,

this active engagement with nature includes a diversity of philosophies, programs and practices that can collectively be defined as, "...the deliberate, strategic combination of adventure activities with therapeutic change processes with the goal of making lasting changes in the lives of participants." (Gillis & Ringer, 1999, p. 29). Typically utilizing natural environments/the outdoors/wilderness as a location, it challenges clients both physically and psychologically, and provides opportunity for practical experience and use of metaphor that enriches the client's growth process (Berger & McLeod, 2006).

In spite of its diversity, Williams & Allen (2012) have identified a number of important points of commonality in a recent survey of 'Adventure therapy' programmes offered in Australia which, alongside the USA, is considered one of the leading nations in terms of its practice. These include

a) the explicit use of personal challenge, activity and experience as a basis of learning, exposure to nature, guidance of participant experiences, and consideration of social context in the design of outdoor programs,

b) the identification of personal and social development as the most salient goals by practitioners involved in these outdoor programs, and

c) the overwhelming use of informal forms of evidence, such as personal observation or anecdotal participant reports in practitioners' evaluation of the outcomes of their work. (p. 5).

Adventure therapy has gained widespread application in especially the USA and Australia as a change-oriented and group-based experiential learning process, and as one of the more active ways of incorporating nature/wilderness into therapy (Annerstedt & Währborg, 2011). A host of outdoor experiential interventions have therefore been developed recently, typically involving the delivery of a program to a small group of participants in a natural / wilderness setting (Ritchie et al., 2012). In a recent meta-analysis, Adventure therapy outcomes showed practically significant improvements (Hedges' $g = 0.47$) across a variety of areas of functioning, including academic performance, dysfunctional behavior like truancy and substance abuse, clinical symptoms like anxiety and depression, family functioning like parent-child relations, morality and spirituality, physical health like weight and somatic symptoms, self-concept represented by levels of self-control and self-efficacy, and social development, operationalized as decreased alienation and increased social skills (Bowen, 2013). These effects were the same at follow-up, suggesting long-term maintenance of short-term gains. It also showed a much more pronounced effect than so-called alternative (non-adventure therapy; $g=.15$) and no-treatment ($g=-.03$) controls. Although these effects were not as strong as that found in one-on-one psychotherapy, the results remain impressive if one considers the group-based nature of adventure therapy, the duration of treatment, and the quantity of therapeutic contact. Bowen (2013) also remark on the trend toward larger effects for AT interventions reported over time since 1960, suggesting an increase in the quality and effectiveness of these interventions.

Little is unfortunately understood about the process by which the personal growth, enhanced interpersonal skills, and group development reported to result from outdoor programmes, is brought about. Neil (2008) found that less than 1% of these programmes undergo empirical programme evaluation. While rich anecdotal evidence seem to strongly suggest the importance of these interventions in the promotion of resilience and well-being, Beringer and Martin (2003) remark that the outcomes and dynamics of 'adventure therapy' remain somewhat mysterious given that "empirical evidence of why and how adventure therapy works is inconclusive and contested." (p. 31). These and

other authors make a strong argument that adventure therapy's 'alleged effectiveness' be supported through 'systematic and rigorous enquiry' regarding the effects and dynamics thereof. Passarelli, Hall and Anderson (2010), is of the opinion that research and theory from the relatively new movement of positive psychology offers a range of perspectives on the process by which these outcomes are achieved.

Within the context of positive psychology, research suggests that an integration of the hedonic and eudaimonic approaches to well-being should be considered optimal for facilitating positive changes within an individual – thus bringing about lasting personal change, while at the same time enjoying the experience through engaging in activities one finds pleasurable (Henderson & Knight, 2012). The adventure experience, while stretching the individual and therefore providing an ideal context for growth, also involves enjoyable activities which draws from the power of positive emotional experience.

Rationale for the facilitation of *resilience* through Eco-Adventure

The diversity of interventions falling under the umbrella term of Adventure therapy are all based on mental health practitioners' growing awareness of the importance of context, and specifically the important role of the interconnection between an individual and his physical and social environment in predicting well-being outcomes (Maller et al., 2005). This represents a strong conceptual link between AT philosophy and the more recent conceptualizations of resilience as provided in the previous section. Ungar (2005), who is well-known internationally for his research on resilience, states that 'there is a remarkable similarity between the anticipated outcomes from outdoor adventure programming and characteristics of resilient individuals' (p.325). Eco-Adventure intervention programs that are developed to include a host of natural challenges that require both interpersonal cooperation and personal effort to successfully overcome, represent a proxy for the risk experiences and adversity faced in everyday life, and therefore provide an ideal context for the development of resilience. By taking part in adventure activities, the learning occurs when students are taken out of their comfort zones and into a psychological stretch zone where they become aware of their personal boundaries (Human, 2012). As Csikszentmihalyi (1990) conclude "Challenge gives people vision and direction, focus and perseverance..." (p 17), which in fact is a statement that strongly refers to the concept of resilience. It is therefore hypothesized that, in spite of it being a potential source of stress, a person's environment could also represent an important resource that, in interaction with his/her individual strengths, could facilitate the development of resilience and growth toward positive well-being.

The work of Linley (2008) and Niemiec (2013) suggests that there are specific pathways for developing character strengths from a psychological perspective. Linley (2008) explains that character strengths develop when individuals become more aware of the existence of these strengths. Individuals then reflect on these strengths once they are aware of them by exploring when they have previously used the identified strengths and how these may be used in the future. Exploration then needs to be followed by application of an action to further develop the identified strength (Niemiec, 2013). When considering the power of observational learning, Niemiec (2013) argues that character strengths can also be developed by observing others utilizing character strengths (for example bravery or overcoming a fear) – whether it be in movies or in real life situations.

The WHEN: Developmental considerations

A final comment has to be made regarding the timing of such intervention. Human development is complex, with various risks associated with the different developmental periods. It however also provides us with windows of opportunity during which the successful facilitation of particular skills are particularly high. The adolescent developmental period, during which the individual is primarily tasked with developing his/her own identity, provides one such window of opportunity between the 13th and 25th years of life. In this regard, Bowen (2013) have found individuals slightly later in this age range to benefit more, most probably because of their greater cognitive capacity for decision making, problem solving, abstract thinking, reasoning and self-regulation.

I therefore suggest that a focus on the enhancement of resilience of especially our youth, through nature-assisted, and especially eco-adventure programmes, offers a potentially valuable addition to the more than 160 successful positive psychology interventions (Donaldson, S.I., Dollwet, M, & Rao, M.A., 2014) that has until now been proven effective through rigorous research.

Concluding comments: Relevance and importance in the South African context

As a discipline, psychology needs to remain relevant by considering new models of intervention that curb existing concerns regarding its reach, scalability and affordability. Concerted efforts to develop such alternatives draw heavily on technology (smartphones, tablets and the Web) and creative methods of delivery through texting and interactive apps for instance. Although these online and self-help interventions that require little or no guidance by a mental health professional has gone a long way toward establishing alternatives to the dominant model in psychology, all in our context do not have access to these technologies, let alone the skills to use them. Kazdin (2015) proposes consideration of models that:

1. can be delivered on large scale (therefore in group context),
2. is affordable
3. draw on a nonprofessional workforce
4. can be provided in multiple settings

Fourth wave research on resilience: According to Masten (2007) the challenge is now to bring past theory and data from decades of resilience research into the future, and blending studies across various disciplines and levels of analysis. Time is right to include psychology (and recent development of positive psychology) with physiology, and our understanding from colleagues in recreation science together to make a real difference. The construct remains relatively unexplored in the South African context, especially as it pertains to adults. Young adults at university. Could this offer alternatives within the current turmoil in tertiary education?

As an alternative that holds possibilities regarding all these requirements, nature-assisted interventions are proposed. It is not proposed as an alternative to clinical psychology, or a 'fix-all' wonder cure, but as another arrow in the quiver of those interested in improving the psychological well-being of individuals in need thereof. The international trend toward urbanization and westernization, and its negative effects on health and well-being has been well-documented internationally (Annerstedt et al., 2010). In South Africa, and specifically the North-West province, large surveys like the POWIRS,

THUSA and PURE conducted within AUTHeR (Africa Unit for Transdisciplinary Health Research) have identified similar trends. An additional concern is that wide-spread poverty and the under-resourced public health sector often place psychotherapy beyond the reach of those that most need it. Within the under-resourced public health sector, this intervention will provide two important benefits:

1) By focusing on prevention rather than cure, it offers a much cheaper alternative than existing curative interventions, and

2) By delivery in group format rather than as one-to-one-in-person treatment (still the dominant mode of treatment delivery) it can reach more of the people in need.

A review of literature on nature-assisted therapy suggests that, although research has until recently been of a 'less rigorous character' (Annerstedt & Währborg, 2011, p. 372), the limited number of systematic research studies that have been done produced a 'small but reliable evidence base' (p. 385) that does suggest that incorporation of nature into psychological interventions could be an important public health intervention. In addition to its potential role in the prevention of physical and psychological illness, studies that have linked both centre- and expedition-based experiential learning interventions with improved individual and group effectiveness (Greffrath, Meyer, Strydom & Ellis, 2011; 2013) underlines the potential of eco-adventure interventions as an alternative and potentially effective preventative and health-promoting intervention. Little empirical research regarding the well-being benefits of integrating psychological interventions with interacting with nature has however been done (Maller et al., 2005; Berger & McLeod, 2006) and virtually none in the South African context. Early encouraging results from another collectivistic context includes significant reductions in anxiety and depression, and a significantly increased level of self-esteem in learners from Hong Kong, China (2012). Our own TREA (Training Resilience through Eco-Adventure) has also provided very promising results: (Megs, Nikki en Christel se studies).

The question regarding the potential value of eco-adventure interventions in particular within the South African context with its richness of natural resources, therefore remains. Early indications are however that there is rich potential offered by this mode of intervention.

An important ethical question is whether making individuals more resilient in the face poverty, violence, substance abuse, family dissonance etc. will actually assist in maintaining the status quo? Should we not rather spend our resources on addressing these sources of stress through public policy and community interventions? The answer is an absolute yes, but this must be complimented by a search for ways in which naturally occurring resilience, that ordinary magic, can be deliberately and effectively created through evidence based intervention. As humans we have an incredible capacity for resilience, which emanates from millennia of evolution, and is embedded in our biology and our cultural practices. We know that individuals and communities worldwide, but also in our SA context, are being overwhelmed by absolutely toxic levels of stress. But we also know that an average of more or less 29% of these individuals thrive and flourish even in the worst of conditions, and research has shown us a great deal about how they are able to achieve this. What better group of people to learn from? Ann Masten has made the call in 1999 already for us to act on this knowledge, and to start making a difference.

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