# Outdoor education and bush adventure therapy: A socio-ecological approach to health and wellbeing.

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## Abstract

Together, outdoor education and bush adventure therapy can be seen to constitute a population-wide health intervention strategy. Whether in educational or therapeutic settings, the intentional use of contact with nature, small groups, and adventure provides a unique approach in the promotion of health and wellbeing for the general population, and for individuals with identified health vulnerabilities. This paper explicitly emphasises human and social health, however, an integral assumption is that a healthy and sustainable environment is dependent on healthy human relationships with nature. We invite outdoor educators and bush adventure therapy practitioners to examine the proposition that healthy interactions with nature can create a unique stream of socio-ecological interventions. A spectrum of outdoor adventure programs is provided, allowing outdoor educators and bush adventure therapy practitioners to locate their work according to program context and aims, and participant aims and needs.

## What is it you do again?

This paper does not ignore the significant and important differences between the outdoor education and bush adventure therapy professions, but acknowledges the common ground that lies at the heart of the unique blend of educational and therapeutic methodologies that include nature, small groups and adventure. Just as medicine and other professions need to articulate a broad vision for environmental health (Maller, Townsend, Brown, & St Leger, 2002, p. 26), it is time for outdoor and environmental educators, practitioners and therapists to understand their work from cross-sectoral perspectives.

Health promotion frameworks presented within this paper provide a basis for understanding human health and wellbeing in relation to the heath of communities and natural environments. The spectrum of mental health interventions assists outdoor educators and bush adventure therapy practitioners to identify the roles they already fulfill in the promotion of public health. A spectrum of outdoor adventure programs is presented, allowing outdoor educators and bush adventure therapy practitioners to locate their work according to the context and aims of programs, and the aims and needs of participants.

With the alarming increase in mental health disorders worldwide, nations need to identify and make full use of health promoting experiences that are accessible and effective. In the USA, adventure therapy has recently been promoted as a legitimate form of complementary and alternative medicine. In recognition of the ways in which it is currently used, Smitten states, "Adventure Therapy Practitioners provide healthcare" (Mitten, 2004, p. 240). It is "the combination of nature, group and adventure activities (that) provides a rich source of healing potential which in a number of ways goes beyond what therapy has to offer in a more conventional setting" (Gilbert, Gilsdorf & Ringer, 2004, p. 31) that practitioners need to focus on to increase understanding of our work.

Whilst based within different sectors, a powerful argument exists for outdoor education and bush adventure therapy to constitute a comprehensive nature-based public health strategy. When examined from *health promotion* frameworks and mapped against the mental health interventions spectrum, Australian outdoor education and bush adventure therapy practice can be seen to provide a population-wide approach to public health that incorporates the health of individuals, communities and the natural environment. This paper seeks to stretch the understanding of the work these practitioners do.

## A crisis in human and environmental health.

We live in an environment so different to that from which we evolved that natural selection has not had time to revise human bodies for coping with many aspects of modern life, including fatty diets, vehicles,

drugs, artificial lights, and central heating (Nesse & Williams, 1996; cited in Burns, 1998, p. 3). Never in history have humans spent so little time in physical contact with animals and plants, and the consequences are unknown (Katcher & Beck, 1987, pp. 175-183). Already, research has shown that too much artificial stimulation and an existence spent in purely human environments may cause exhaustion or produce a loss of vitality and health (Stilgoe, 2001, p. 4). It appears humans may not be fully adapted to an urban existence. At the same time, there is a growing realisation that, for the Australian landscape at least, the removal of traditional people/custodians may have significant impacts on the health and sustainability of the environment. In Australia, perhaps the environment needs people as much as people need contact with the natural environment.

Health disorders currently increasing within industrial communities include: disease patterns linked to social inequities and industrial ways of life; health problems that are social rather than medical in nature; health problems that tend to be cumulative, long-term, chronic and not amenable to curative measures; and a general public that is changing its perception of health risks, and expressing new expectations (Kickbusch, 1989b, p. 7). According to Raphael and Martinek (1996) these trends are related to a number of social, ecological and technological processes, including: crowding and social isolation; changes in communication and information; and human, social, and economic epidemics related to depression, substance abuse and violence (cited in Maller et al., 2002, p. 12). A number of authors (Raphael & Martinek, 1996; Roszak, Gomes, & Kanner, 1995) identify these trends as due to the break-up of families and perhaps an almost complete disconnection from the natural world.

Some see these as problems associated with the deficit of an individual, and therefore interventions seek to 'treat' the individual. Others, such as Brookes (1994), may argue that these issues are symptoms of a breakdown in community structures that traditionally gave members a sense of connectedness, belonging, and a role within economic and social structures. Interventions from this perspective seek to build healthy communities, which therefore promotes resilient individuals who have meaning, purpose and sense of belonging. "It is not the individual who needs healing; it is the social and societal arrangements" (Brookes, 1994, p. 27).

In their own ways, outdoor education and bush adventure therapy programs assist to reconnect urban-based individuals with nature. Whilst educational and therapeutic outcomes may be the priority, these programs also assist participants towards improved physical, mental, social, community and environmental health and wellbeing.

The following definitions are utilised for the purposes of this paper: outdoor education "focuses on personal development through interaction with others and responsible use of the natural environment. It involves the acquisition of knowledge, values and skills that enhance safe access, understanding and aesthetic appreciation of the outdoors, often through adventure activities" (The Personal Development Framework 1989; cited in McArthur, 1994, p. 16). Adventure therapy includes "any adventure experience with diagnosed clients or reporting a specified therapeutic outcome" (Staunton, in preparation; cited in Neill, 2003, p. 1). Wilderness therapy is "a therapeutic experience that takes place in a wilderness setting where focus is placed on naturally occurring challenges and consequences" (Gass, 1993; cited in Neill, 2003, p. 1). The following quote defines bush adventure therapy as described by a small group of practitioners from Australia and New Zealand who met in July 2004, in lieu of the cancelled 2nd South Pacific Wilderness Adventure Therapy (SPWAT) Forum:

> We have changed the title of this gathering of professionals within this field to the more culturally appropriate term for practice within the South Pacific region, recognising that the term 'wilderness' is a colonising term [implying 'people-free'] that ignores the indigenous presence in the land. The new title of bush adventure therapy emphasises our relationship with the natural environment in our work and practice. The word 'bush' is relevant to the South Pacific region because it encompasses the whole range of environments, from small areas to vast expanses of natural bushland and coastal areas. Our understanding of the term 'adventure' includes activities in mind, body and spirit, for people of all ages and stages. Our understanding of the term 'therapy' is inclusive of general therapeutic outcomes and the specific intent of therapy. This definition has been influenced by the definitions discussed at the SPWAT Forum 2002, and is seen as a broad definition open to discussion and feedback. (Minutes, South Pacific Forum, Tasmania, 2004, p. 3)

The emphasis on the *outdoors* in outdoor education and the *bush* in bush adventure therapy indicates the importance of the natural environment within both types of programs. Whilst adventure therapy clearly utilises adventure as the primary medium and therapeutic tool, outdoor education attempts to re-engage students with the natural environment. Wilderness therapy, nature-based therapies and the practice of bush adventure therapy (in the Australian context) incorporate human contact

with nature as a central focus and methodology within the therapy experience for participants (Carpenter & Pryor, 2004, p. 226). These definitions demonstrate a clear, common emphasis on the outdoors, a use of adventure, and the importance of groups within these educational and therapeutic experiences. Through the use of adventure, programs engage participants' bodies and emotions in the experience, and when conducted in the context of small groups, group activities, and 'people living together' these outdoor adventures offer a relatively holistic body-mind-emotional-social-environmental experience for participants. This combination of aims constitutes the basis for a socio-ecological approach to health, where individual, community and environmental sustainability are integrated within a common approach.

## Health promotion

The Commonwealth Department of Health and Aged Care defined mental health as "the realisation of one's potential and the capacity of individuals and groups to interact with one another and the environment" (CDHAC, 1999, in Maller et al., 2002, p. 16). At a landmark International Conference on Health Promotion in 1986, The Ottawa Charter for Health Promotion was developed, emphasising the need for a reorientation of health services to be shared among individuals, community groups, health professionals, health service institutions, and governments. The Charter identified the importance of environments supportive of health, stating that the inextricable links between people and their environment are the basis for a socio-ecological approach to health. It acknowledged that the key focus of health promotion was to enable people to increase control over, and improve their health. In addition, the Charter advocated conservation of natural resources as essential in any health promotion strategy (World Health Organization, 1986). From this basis, mental health promotion has come to focus on the prevention of ill-health rather than on treating the mental illness itself, assisting to de-stigmatise mental health conditions and disorders in the community. From these health promotion foundations, links between human health, the health of societies, and the health of the natural environment have come to be considered as essential within 'healthy' public health policy. Interestingly, the environmental management sector in Victoria is beginning to incorporate aims of human health within public parks strategies through development of 'Healthy People, Healthy Parks' (Parks Victoria, 2005).

The Victorian Health Promotion Foundation describes the three essential prerequisites for health and wellbeing for all members of society as including: social inclusion, freedom from discrimination and violence, and access to economic resources (Victorian Health Promotion Foundation, 2005a, p. 13). Table 1 summarises the key characteristics of these three prerequisites.

**Table 1. Prerequisites of health and wellbeing (Victorian Health Promotion Foundation, 2005a, p. 13).**

| |
|---|
| **Social inclusion:** |
| • Supportive relationships |
| • Involvement in community and group activities |
| • Civic engagement |
| **Freedom from discrimination and violence:** |
| • Valuing of diversity |
| • Physical security |
| • Self determination and control over one's life |
| **Access to economic resources:** |
| • Work |
| • Education |
| • Housing |
| • Money |

To understand the broad aims of public health, health interventions have been described as either 'upstream' or 'downstream.' Upstream interventions are preventative measures that reduce the likelihood of incidents or disasters occurring (education is an example of an upstream intervention). Downstream interventions on the other hand are 'rescue' measures that include treatment or care for individuals and communities at risk of, or already experiencing, injury or loss. A robust public health system will support both upstream and downstream intervention measures.

Whilst working with different sub-populations and not necessarily from a health promotion focus, both outdoor education and bush adventure therapy constitute health promotion interventions, with one tending to work upstream and the other downstream. Whilst education is a health promotion activity, mental health promotion is more readily acknowledged within the field of adventure therapy. As Mitten (2004) states,

"people typically participate in adventure therapy programs for health reasons, including physical, emotional and psychological concerns" (p. 242).

Conducted safely, small, pro-social communities spending time in nature towards either educational or therapeutic aims enhance the factors protective of health and wellbeing for participants, communities and the natural environment. Examples of health and wellbeing outcomes arising from participation in outdoor adventure interventions include: development of self efficacy, improved confidence, peer relations, self understanding, sense of wellbeing and independence (Hattie et al., 1997; cited in Neill, 2004, p. 8); increased self-esteem, social competence, school functioning, family functioning, and a reduction in depressive symptoms (Crisp & Hinch, 2004, pp. 1-24); and, for students undertaking training in outdoor education, with a well-sequenced introduction of concepts and experiences with nature, the promotion of a "kinship with nature" (Martin, 2004, p. 11).

## Why do outdoor education and bush adventure therapy programs need to think about mental health?

According to the World Bank and the World Health Organisation, mental health disorders currently constitute 10% of the global burden of disease (VHPF, 2005b). Depression alone costs the Australian economy $3.3 billion in lost productivity each year (Beyondblue, 2005). Estimates suggest that by the year 2020 mental health disorders will rise to 15% of the global burden of disease and depression will constitute one of the largest health problems worldwide (Murray & Lopez, 1996; cited in Maller et al., 2002, p. 8). Alarmingly, mental illnesses are becoming more prevalent in young people and at younger ages (Raphael & Martinek, 1996; cited in Maller et al., 2002, p. 12). The Ottawa Charter indicates that all sectors and governments, health and otherwise, must concern themselves with this emerging worldwide health epidemic (World Health Organisation, 1986).

The Commonwealth Department of Health and Aged Care & Australian Institute of Health and Welfare (1999) demonstrated that improvements in mental health promotion activities are likely to have a major impact on the level of depressive symptoms and disorders prevalent in the Australian community. Moreover, depressive symptoms and disorders are shown to be related to other disorders, both mental and physical, potentially magnifying human suffering and adding further costs to the health care system. In this light, effective prevention and treatment of depression is likely to have a much wider impact on individual and community health.

Whilst the effectiveness of many health promotion and illness prevention activities is yet to be adequately demonstrated, development of an optimistic outlook, resilience to life stress and access to social support are found to be outcomes indicative of programs able to decrease depressive symptoms for participants (CDHAC & AIHW, 1999). Whilst physical activity, contact with nature, and social connection, combined within a Wilderness Adventure Therapy treatment program, are seen to work against the onset and increase of depressive symptoms (Crisp & Hinch, 2004, pp. 1-24), the effects of combinations of these elements - as found within outdoor education and bush adventure therapy interventions - may provide a potential gold-mine for health promotion.

Physical exercise has been found equally effective as medication in the treatment of depression in elderly people. For example, Blumenthal et al. (1999) compared incidence of depression in three treatment groups, where indoor aerobic exercise, antidepressants, or a combination of both were prescribed. After four months the clinical symptoms of approximately 65% of patients in all groups had reduced so significantly that they were no longer classified as clinically depressed (Blumenthal et al., 1999, cited in Maller et al., 2002, p. 12).

Whilst both outdoor education and bush adventure therapy programs often utilise physically demanding adventure activities such as bushwalking, skiing or paddling, the importance of physical contact with nature remains critical within many program experiences. In a major collaborative study, Maller et al. (2002) presented a review of the health and wellbeing benefits arising from 'contact with nature' in a public park setting. Strong anecdotal, theoretical and empirical evidence suggests that humans gain biological, physiological, mental, social, and economic benefits from contact with nature (Maller et al., 2002, pp. 50-51). Research now clearly demonstrates for example that 'contact with nature' can positively affect mood state, reduce stress and tension, assist recovery from mental fatigue, and boost self confidence, amongst other outcomes (Kaplan, 1992a; Kaplan & Kaplan, 1989, cited in Maller et al., 2002; Kuo, 2001; Kuo & Sullivan, 2001; Leather et al., 1998; Lewis, 1996; Parsons, 1991; Ulrich, 1984; Ulrich et al., 1991). In their US-based study on the benefits of wilderness experience programs, Kaplin and Talbot (cited in Ibbott 1999) noted that nature in general, and wilderness in particular, made substantial differences in psychological benefits obtained.

## Therapy or therapeutic?

Along with therapists of all kinds, adventure therapists are expected to understand the theoretical basis of their work, be aware of their own role in the

therapy process, establish professional boundaries and emotional safety-nets to ensure safe experiences for participants, and maintain on-going self-reflection through professional supervision sessions (Berman & Davis-Berman, 1996; Crisp, 2004; Vincent, 1996; Williams, 2004).

Due to the physical and emotional risks of facilitating adventure (including for example the possibility of re-traumatisation for a participant who has experienced trauma or abuse), adventure therapists need to be particularly alert to their own role and choices in directing experiences for participants, including having an awareness of the limits of their own training. A practitioner attempting to provide adventure therapy may be considered 'dangerous,' if attempting to deal with the psychological needs of highly vulnerable clients to a depth beyond their own training. For these reasons, adventure therapists must be equipped to contain, manage and refer participants on to other supports and services when the need arises (Gillis, 1996, pp. 5-15).

Berman and Davis-Berman (1996) highlight the importance of differentiating between programs which are therapeutic and those that provide psychotherapy. Amongst other suggestions, their advice for defining if adventure is therapy is to look at the goals of the program, the process or mechanisms of change employed, and the therapeutic environment or milieu in programs. For Williams (2004), alignment with the medical/psychotherapeutic profession is the best (and only) means of ensuring high quality, safe, ethical practice. Williams also suggests that programs or practitioners falling outside of tightly prescribed clinical psychotherapeutic practices should consider using words other than 'therapy.' Others consider contemporary ecological/post-modern therapy frameworks such as narrative, solution-focused, or systems therapy approaches to be equally valid and effective, even more appropriate for use within outdoor adventure programs (Gilbert et al., 2004; Carpenter & Pryor, 2004). Needless to say, there is more than one school of thought or theory within the adventure therapy field, and more than one way to ensure safe, effective practice. It is this diversity that at times clouds opportunities for collaboration, but at the same time increases choices for participants.

All programs need to operate from an evidence-base, be ethical in approach and delivery, and seek to utilise best practice. Outdoor education and bush adventure therapy frameworks will emphasise different aspects within their respective arenas of work, including within training, supervision, accreditation, and professional development, to cater for the aims and needs of their specific participant populations.

At the 1st South Pacific Wilderness Adventure Therapy Forum in 2002, although a reasonable percentage of practitioners (more than half) had undertaken training in therapeutic techniques or held recognized clinical therapist qualifications, the terms therapy and therapeutic were rarely used by practitioners to describe their work. Practitioners chose instead to describe the processes and methods of their work as:

- Interventions - for change.
- Support - to re-integrate into schools and society.
- Improving - the participants' self-management skills.
- Focusing - on participant successes, finding solutions.
- Assisting - the process of change and personal growth.
- Strengthening - connections to others and community (Pryor & Carpenter, 2002, p. 38).

The processes and methods discussed above can be framed as either educational or therapeutic; the difference lies in the rationale for the intervention, the nature of the intervention, the expertise and approach used by the practitioner, the needs and vulnerabilities of participants, and the point at which an individual chooses to address the need for change in their lives.

Schools and community-based outdoor education programs are seen to work towards enhancement of the health and wellbeing of individuals, families, communities and/or the natural environment, thereby working 'upstream' to prevent the onset or establishment of ill-health. When parks and other natural areas utilised by these programs are promoted to students as health-creating everyday settings, the health potential is multiplied. Outdoor education is seen therefore as an effective 'upstream' prevention strategy within public health. Bush adventure therapy on the other hand tends to work 'downstream' to treat, repair or improve the health of individuals either 'at risk' of, or already experiencing, a range of health (including mental health) difficulties. Whilst bush adventure therapy programs may work from a strength-based approach and embed prevention strategies within the work, it is the 'client needs' that place these programs 'downstream.'

Practitioners such as Abbott (1995) might smile to remember the statement made at the first Australian Adventure Therapy Workshop preceding

the 9th National Outdoor Education Conference: "If adventure educators and therapists could move past [these] blocks and support each other to really tap into the power of adventure therapy, I believe we would have a much greater impact on the effectiveness of mainstream therapy, counseling and personal growth" (p. 28). The spectrum of interventions assists programs and practitioners to understand whether their intent is 'education' (prevention), or 'therapy' (treatment), or neither, according to where they are working, who they are working with, what aims are intended for participants, and what the needs of the participants are.

If outdoor education and bush adventure therapy professions continue to learn to work together to identify the commonalities within their different approaches, and seek further collaboration across sectors, a socio-ecological approach to health promotion will be modeled within these two areas of endeavor that together, provide a seamless suite of health promotion interventions. A socio-ecological approach to health encompasses the health of the whole individual, their environment, and the whole community. Such an approach also accounts for the interplay between all elements within human health (i.e. biological, mental, social, environmental, spiritual, and economic) and takes into account broad ranging health determinants. This approach encompasses long-term population approaches, as well as early intervention, treatment and care for vulnerable individuals and communities.

## A socio-ecological approach to health and wellbeing.

To assist broad-ranging programs such as those encompassed by the fields of outdoor education and bush adventure therapy to identify their particular role, approach and place within a range of nature-based group-oriented adventure interventions, the Spectrum of Interventions, shown in figure 1, may be useful. Based on the Spectrum of Interventions for Mental Health Problems and Mental Disorders (CDHAC, 2000), which was adapted from The Mental Health Intervention Spectrum (Mrazek & Haggerty, 1994; cited in CDHAC, 2000), this spectrum allows educators, health practitioners and therapists to identify their program in relation to others by examining the program in terms of: program context; program aims; participant aims and needs; and staff approaches.

The spectrum also provides a coherent map upon which to place a nature-based practice that is inclusive, equitable, adaptable and respectful, and which values philosophical, cultural, regional and circumstantial uniqueness in programs. Within the spectrum, Prevention refers to those interventions aimed at preventing the onset of the target behaviour or problem; Early Intervention refers to interventions targeted to high risk individuals who have minimal but detectable signs and symptoms foreshadowing a disorder; Treatment refers to interventions aimed at those individuals who have the target behaviour or problem; and Continuing Care (or Maintenance) refers to interventions aimed at assisting those individuals to maintain a behaviour change or continue to self-manage a particular problem or behaviour (CDHAC, 2000).

The interventions framework demonstrates the importance of having a full range of interventions that include preventative strategies for whole populations; early interventions for at risk communities, families and individuals; and treatment and continuing care strategies for individuals with ongoing mental health vulnerabilities/ disorders.

Within this spectrum, outdoor education programs generally sit within *Prevention*, as they are designed and delivered for general student

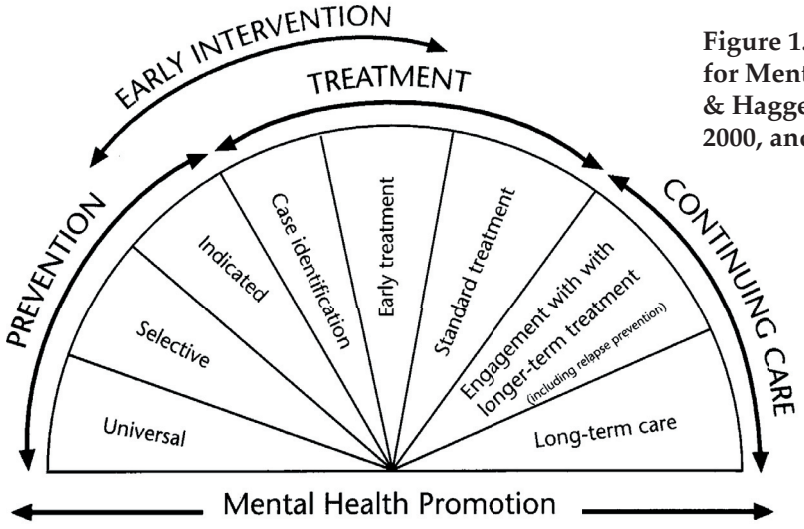


**Figure 1. Spectrum of Interventions for Mental Health Promotion (Mrazek & Haggerty, 1994; cited in CDHAC, 2000, and used with permission).**

**Table 2. Outdoor education and bush adventure therapy health interventions.**

| Type of intervention | Outdoor Education (OE) and Bush Adventure Therapy (BAT) Examples |
|---|---|
| **1. Prevention:** Universal | ▪ OE experiences for the general student population. For example, offer OE subjects, provide camps with school staff or outdoor adventures with the assistance of commercial organizations. |
| Selective | ▪ OE targeted to individuals or a subgroup of the student population requiring intentional support. For example, special year nine programs, or leadership programs. |
| Indicated | ▪ OE or BAT programs targeted to higher-risk individuals. For example, programs for those dropping out of mainstream schooling, programs for 'at risk' cultural groups. |
| **2.Early intervention** | ▪ OE or BAT programs working with people who display symptoms of ill health, including those who have been diagnosed. For example, alternative programs for young people who are struggling or who have dropped out of school. |
| **3. Treatment:** | ▪ BAT programs working with people who have been diagnosed with a health disorder, to provide early treatment. For example, tailored therapeutic programs for young people with substance abuse disorders. |
| | ▪ BAT programs working to provide standard or adjunct treatment for people suffering from known disorders. For example, therapy programs for young people with depression. |
| **4. Continuing care: (Maintenance)** | ▪ BAT programs providing longer-term health rehabilitation, including treatment of existing health disorders. For example, therapeutic community programs for adults with substance use disorders. |
| | ▪ BAT and OE programs providing long-term care, towards a reduction in relapse and recurrence of health disorders. For example, programs for adults self-managing mental health disorders. |
| | ▪ BAT and OE programs providing after-care, including rehabilitation for those with diagnosed disorders who are currently well. For example, community programs and outdoor adventure groups. |

populations. Where outdoor education programs are tailored for *at risk* populations or targeted individuals, the programs fall within *Early Intervention*. A special program for students identified as displaying symptoms or behaviors reflective of ill-health enter the Early Treatment phase within the spectrum, and where a full-blown disorder is exhibited, programs are working within standard Treatment interventions, often called Therapy. Table 2 provides examples of outdoor education and bush adventure therapy programs across the spectrum.

To clearly demonstrate the relationship between outdoor education and bush adventure therapy, we have combined aspects of the Spectrum of Interventions for Mental Health Promotion, and the above table of outdoor education and bush adventure health interventions. The "Spectrum for Outdoor Adventure Interventions" diagram, shown in figure 2, emphasises the dominant role of each individually as a process of treatment or prevention, as well as recognising the importance of both in early intervention and continuing care. The diagram explores a socio-ecological approach to health where the range of outdoor education, outdoor recreation, nature-based tourism, adventure training, adventure-based counseling, wilderness therapy, bush adventure therapy and other intentional outdoor programs can clearly locate their position and role in health promotion of individuals, communities and the general population.

## Conclusions

Outdoor adventure programs are gaining worldwide recognition as an effective approach to engaging people struggling with a variety of difficult life circumstances, in a participatory process of change. A combination of nature, small groups and adventure activities are found to provide powerful experiences of learning and change in educational and therapeutic contexts.

Outdoor education within mainstream schools is seen to constitute a whole of population strategy in health promotion, whilst bush adventure therapy provides a health promotion intervention for targeted individuals. In this light, collaboration between these different professions, along with inter-

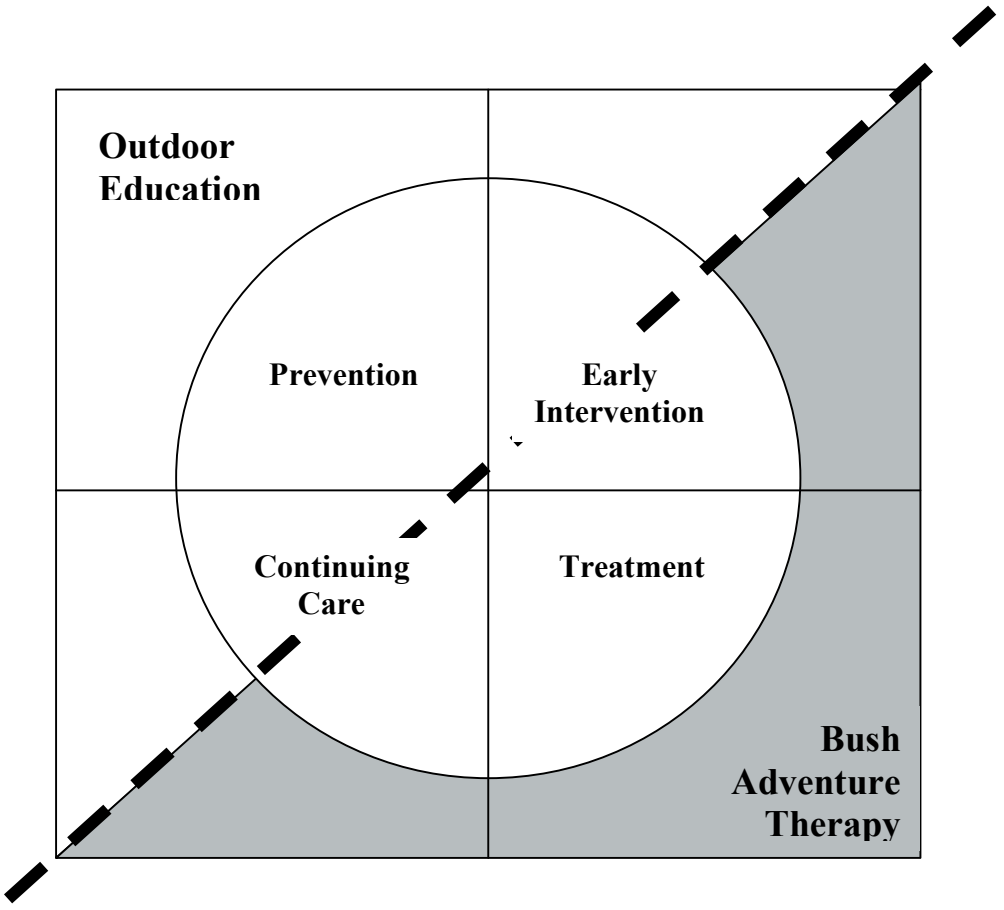


**Figure 2. The Spectrum of Outdoor Adventure Interventions**

sectoral integration, provides a nation-wide strategy incorporating nature, small groups and adventure, for tackling the growing burden of mental health disorders in the Australian community. Whilst more research is required to understand these interrelationships, a closer examination of the interdependence between people, their health, and their physical and social environments is required (Kickbusch, 1989a; Maller et al., 2002). Despite the lack of research on how programs achieve outcomes in these areas, a growing body of evidence demonstrates a range of benefits arise from outdoor education and bush adventure therapy experiences. There is a clear need for continuing to build the evidence base, including for example, a meta-analysis of program outcomes (Gillis 1992; cited in Neill 2003). Research must include theoretical, anecdotal and empirical perspectives, rigorously examining the process, impact and outcomes of programs on participants' health, wellbeing and learning outcomes.

This paper has examined the use of outdoor education and bush adventure therapy as the basis for a cross-sectoral approach to health. With the emphasis on social connection and the natural environment, these endeavors can be seen to constitute a coherent socio-ecological approach to health. Outdoor educators and bush adventure therapy practitioners are encouraged to identify their own role within the spectrum of socio-ecological health approaches; to examine health alongside educational outcomes for participants; and to explore new ways of articulating the benefits of programs, towards an integrated approach to human, social and environmental health.

When small groups of people adventure together in natural environments, the health and wellbeing of humans, communities and the natural environment are enhanced. With collaboration between outdoor education and bush adventure therapy professionals, we raise the potential for a socio-ecological stream of health and wellbeing interventions that are effective, affordable and accessible.

***In July 2005, adventure therapy practitioners and others will celebrate 10 years since the first Pre-Conference Adventure Therapy Workshop (at the 9th National Outdoor Education Conference). In this case, the Bush Adventure Therapy Forum will precede the 13th National Outdoor Conference, also to be held at the Gold Coast, Queensland.***

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