

A Profile of Outdoor Adventure Interventions for Young People in Australia

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Abstract

In this study, we describe characteristics of outdoor adventure interventions (OAI) that aim to address problem behaviors in young people in Australia. A national online survey was completed by 98 program leaders and 24 program managers. OAIs for youth in Australia are diverse, but typically incorporate several days in the outdoors, during which participants engage in adventure activities and group activities requiring teamwork, with intentional involvement of program leaders. The main outcomes, as perceived by staff, were recreation and personal and social development. OAIs appear to be well positioned to make a unique and valuable contribution to the development of young people, addressing their behavior problems and potentially supporting prevention and treatment of mental health problems. A more targeted, sector-wide study of adventure therapy programs in Australia is recommended to qualify and extend on the findings of this study.

KEYWORDS: adolescence; adventure therapy; Australia; outdoor adventure interventions; youth development

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Outdoor adventure interventions (OAI) involve young people in small groups, contact with nature, and adventure activities to foster personal and social development and sometimes also therapeutic goals (Pryor, 2009). OAIs offer an effective and potentially more appealing modality for youth development and psychotherapeutic treatment than do many traditional, mainstream therapeutic interventions. A growing body of research indicates that OAIs can result in short- and long-term therapeutic change (e.g., Bowen & Neill, 2013a; Pryor, 2009). However, little systematic, sector-wide data is available about the nature of OAI programming in Australia or internationally (Neill, 2003).

Outdoor Adventure Interventions

OAIs take many forms (e.g., day-only programs, multiday expeditions, center-based programs, and journey-based programs) and operate in a range of settings (e.g., urban and rural; Gass, Gillis, & Russell, 2012). These programs use diverse and innovative practices (e.g., narrative therapy and nature therapy) to seek a variety of outcomes (e.g., psychosocial development and therapeutic treatment) with various client groups (e.g., youth at risk and people recovering from drug abuse; Bandoroff & Newes, 2004). Enhancement of participants' personal and social skills is the most common aim, with some programs seeking more specific outcomes, such as management of behavior problems (Deane & Harré, 2013; Neill, 2001a; Russell, 2003).

The term *outdoor adventure intervention* is used in this article to refer to outdoor adventure programs that combine small groups, contact with nature, participation in adventure activities, and therapeutic processes to create opportunities for change in participants and to support an individual (or family group) to move toward greater health and well-being (Gass et al., 2012; Pryor, 2009). Similar commonly used terms include *adventure therapy* (Gass et al., 2012), *wilderness therapy* (Russell, 2001), and *bush adventure therapy* (Pryor, Carpenter, & Townsend, 2005). In theory, the combination of these elements can provide a holistic integration of physical, mental, emotional, behavioral, social, cultural, spiritual, and environmental experiences in support of participants' personal growth and may strengthen their connections to others and community (Pryor et al., 2005; Pryor & Field, 2007).

OAIs often target young people at risk (Gillespie & Allen-Craig, 2009; Neill, 2001a; Raymond, 2003), adjudicated youth (Houghton, Carroll, & Shier, 1997; Lan, Sveen, & Davidson, 2004; Sveen, 1990), mental illness (Cotton & Butselaar, 2013; Crisp & Hinch, 2004; Schell, Cotton, & Luxmoore, 2012), substance use problems (Conway, 2002; Price & DeBever, 1998; Smith, Gailitis, & Bowen, 2012), and people with disabilities (Backhouse, Craig, & Packer, 1978; Knuckey & Rankine, 2001; Neill, 1996). The aim of these programs is generally to provide experiences and opportunities to bring about lasting educational, therapeutic, and rehabilitative change (Pryor, 2009).

Outdoor Adventure Interventions Internationally

Application of outdoor- and adventure-based education principles to therapeutic populations has been occurring since at least the 1950s (Bandoroff & Newes, 2004). Key developments in this field include the emergence of organized summer camps for youth during the late 1800s in the United States; use of "tent therapy" by Manhattan State Hospital East in 1901 to isolate tuberculosis patients from other patients; founding of Scouts in 1907 by Baden Powell; establishment of the first therapeutic summer camp (Camp Ramapo) in 1922; the progressive education movement in the 1930s; founding of the first Outward Bound program in 1941 in the United Kingdom; establishment of the Dallas Salesmanship Club Camp for boys with emotional problems; and the founding of Project Adventure in 1971, an organization that explicitly uses adventure for counseling purposes (White, 2012).

OAIs have been actively researched since the 1950s (Gass et al., 2012), with the majority of such work having been conducted in the United States (Bowen & Neill, 2013a). There have been three noteworthy descriptive studies of OAIs in the United States (Davis-Berman, Berman, & Capone, 1994; Gass & McPhee, 1990; Russell, Gillis, & Lewis, 2008). In addition, there has been a recent international meta-analysis of adventure therapy programs (Bowen & Neill, 2013a).

Gass and McPhee (1990) provided a descriptive analysis of adventure therapy programs ($N = 50$) for substance abusers in the United States. Participants ranged in age from 5 to over 80 years (40% were aged 15 to 20 years). Most programs (64%) lasted less than one day, with 10% of programs lasting longer than 15 days. A variety of adventure activities were used, including initiative games (92%), low ropes courses (92%), high ropes courses (69%), day hiking (54%), and meal planning (50%). The most common program goals were behavior oriented. Psychosocial goals were more frequent than cognitive development goals. Most programs were run by two staff members, with one member usually possessing a master's degree or higher and the other a bachelor's degree (Gass & McPhee, 1990).

Davis-Berman et al. (1994) surveyed 31 therapeutic wilderness programs, which specialized in mental health treatment in the United States. Participants were typically aged 13 to 18 years. Programs varied greatly in length and style (e.g., one session, day trips, 3–4 week wilderness expeditions, 12–18 month residential experiences). A variety of adventure activities were used, including ropes courses, wilderness-oriented experiences (e.g., backpacking, climbing, and canoeing), and outdoor experiences (e.g., camping, outdoor games, rafting, fishing, biking, and horseback riding). Although over half (58%) of the programs employed master's degree professionals, they often worked as supervisors, with most program staff working directly with clients having either bachelor's degrees or no degree at all.

Russell et al. (2008) conducted a survey of 65 outdoor behavioral healthcare (OBH) programs. The average age range of participants was 12 to 17 years old. The median length of stay in treatment was 56 days, with approximately 30 of those days spent on wilderness expedition. The four most common program designs involved expeditions (35%), residential (26%), integrated expedition and residential (17%), and base camp (14%). The median number of state-licensed mental health practitioners involved in each program was three.

Bowen and Neill (2013a) conducted a meta-analysis of adventure therapy outcomes, based on 197 studies (154 of these studies were conducted in the United States), representing 17,728 participants. The overall short-term standardized mean effect size for the entire sample and for 10- to 17-year-olds was positive and moderate ($g = .47$ and $.44$, respectively). Effect sizes for 10- to 17-year-old youth by outcome category for the whole study ranged from moderate to small: clinical ($g = .46$), academic ($g = .44$), self-concept ($g = .41$), social development ($g = .41$), behavior ($g = .39$), family development ($g = .31$), physical ($g = .31$), and morality/spirituality ($g = .12$; Bowen & Neill, 2013c).

Outdoor Adventure Interventions in Australia

Prior to British colonization, Indigenous Australians used “bush adventure” practices for prevention and treatment of health needs for well over 40,000 years (Pryor, 2009). Western use of bush adventure therapy in Australia emerged in response to identified psychosocial needs and service gaps in the 1950s (Pryor, 2009). Although Australian organizations, researchers, and practitioners have been actively involved in OAI research and program evaluation since at least the 1950s (Neill, 2001b), there is limited knowledge about the origins and collective practices of OAIs in Australia.

Notably, Pryor (2009) reported on 20 case studies of OAIs in Australia based on site visits and follow-up conversations with 48 experienced practitioners. Fifteen of the 20 programs targeted youth participants. Pryor estimated that over 800 OAIs are provided each year in Australia, involving over 700 field staff and 15,000 participants. Australian OAIs are funded via

diverse sources (including government, philanthropic donations, corporate sponsorship, fee-for-service). Australian OAI practitioners have a range of training, experience, and qualification pathways, including therapeutic, outdoor, learning, and craft- or trade-related backgrounds, and usually possess more than one qualification. Australian OAI practitioners have broad-ranging philosophies, guiding principles, theories, and frameworks, with most using a theory about how they support healthy change and/or a clear and verbalized rationale. Intentional therapeutic processes used by Australian OAI practitioners included contact with nature, adventure experiences, therapy or counseling, and “intentional conversations” with participants (Pryor, 2009). Other than this work by Pryor, there is little research about the provision of OAI programs in Australia.

Bowen and Neill’s (2013a) meta-analysis of adventure therapy outcomes included 23 studies of Australian OAI practitioners (12%), representing 1,222 participants. Fifteen out of the 23 were studies of OAI practitioners for 10- to 17-year-olds, representing 1,083 participants. The overall short-term standardized mean effect size for the entire Australian sample across the age span and for 10- to 17-year-old Australians was positive and moderate ($g = .30$ and $.26$, respectively), somewhat lower than the mean for the international sample of studies across the age span ($g = .47$) and for the entire international sample of 10- to 17-year-old youth ($g = .44$). This indicates that although Australian OAI participant outcomes are positive, there is room for improvement. Effect sizes for 10- to 17-year-old youth by outcome category for the Australian studies ranged from moderate to very small: academic ($g = .39$), self-concept ($g = .31$), behavior ($g = .29$), clinical ($g = .26$), family development ($g = .25$), social development ($g = .20$), morality/spirituality ($g = .02$), and physical ($g = -.03$; Bowen & Neill, 2013b).

The Current Study

There is little systematic, sector-wide data about the nature of OAI programming in Australia; thus, there is a need to survey OAI practitioners in Australia. This study sought to better understand Australian OAI organizational and staff characteristics, program design, intervention goals, and perceived participant outcomes. Thus, two research questions were examined:

1. What are the organizational, staff, program, and participant characteristics Australian OAI practitioners for youth?
2. What are the perceived outcomes and benefits of Australian OAI practitioners for youth?

Method

Participants

Participants in this study were a subset of program leaders ($N = 98$) and program managers ($N = 24$) of Australian outdoor camps and programs drawn from a larger study of Australian outdoor camps and programs for youth ($N = 388$ [$N_{\text{leader}} = 211$, $N_{\text{manager}} = 177$]; Williams & Allen, 2012). This group was selected on the basis of the main purpose or goals of the program.

Twenty-four out of the 177 program managers indicated that a major goal of most (33%) or all (67%) of their organizations’ programs was to address problem behaviors (e.g., poor school attendance, drug use, depression), and these programs were thus selected for this study. Similarly, 98 program leaders indicated that addressing problem behaviors was a moderately (49%), very (14%), or extremely (37%) important goal of the program on which they worked and were thus selected for this study.

Instrumentation

The National Survey of Australian Outdoor Youth Programs was developed by the Outdoor Youth Programs Research Alliance (Williams & Allen, 2012), a group investigating the psychosocial benefits of outdoor programs for young people in Australia. The survey was designed to

collect information from outdoor professionals about the characteristics and qualities of outdoor programs offered to young people. Questions focused on program characteristics and features often believed to be important for enhancing participant outcomes, such as key program elements, structure and design, goals, intended benefits, and social context (Williams & Allen, 2012).

The survey comprised two parts. Part 1 contained 90 questions for program leaders about a specific, recent (last 6 months) outdoor program on which they worked as a leader. The questions related to what occurred during that specific outdoor program. Part 2 contained 85 questions for program managers about their organization, programs, and participants. Depending on their work role, respondents could complete one or both parts. Most of the survey items were quantitative, with ordinal response options. See Williams and Allen (2012) for more details.

Procedure

Australian outdoor youth program leaders and managers were recruited in 2011 by members of the OYPRA Steering Committee and other supporting organizations contacting outdoor program providers (individuals and organizations) and through Internet-based snowball sampling. Outdoor program leaders and managers were eligible to complete Part 1 and/or Part 2, as appropriate. Individuals were invited to complete Part 1 and/or Part 2 of the online survey, as appropriate. Respondents took approximately 30 min to anonymously complete the survey. For the small number of incomplete cases for which at least 50% of data were available, multiple imputation was used to replace the missing data. Multiple imputation uses a regression-based procedure to generate multiple copies of the data set, each of which contains different estimates of the missing values (Enders, 2010). Methodologists regard multiple imputation as a state-of-the-art missing data technique because it improves the accuracy and the power of the analyses relative to other missing data handling methods (Schafer & Graham, 2002).

Results

Descriptive statistics and histograms are used to show program managers' and program leaders' responses to questions about organizational, staff, program, and youth participant characteristics and perceived outcomes and benefits.

Organizational Characteristics

Programs were most often provided by not-for-profit organizations, followed by school/education, community, and government organizations, with 11% of programs being provided by for-profit businesses (see Figure 1).

Respondents represented organizations from all states and territories. Program managers worked for organizations in Victoria (34%), South Australia (24%), New South Wales (12%), Queensland (12%), Tasmania (6%), Northern Territory (6%), Western Australia (3%), and the Australian Capital Territory (3%). These proportions were broadly representative of 2011 state populations (Australian Bureau of Statistics, 2012), with the exception of New South Wales (which was slightly underrepresented) and South Australia (which was slightly overrepresented). Managers described the work of their organizations as all (46%), most (29%), about half (8%), and a small part (17%) related to providing outdoor programs.

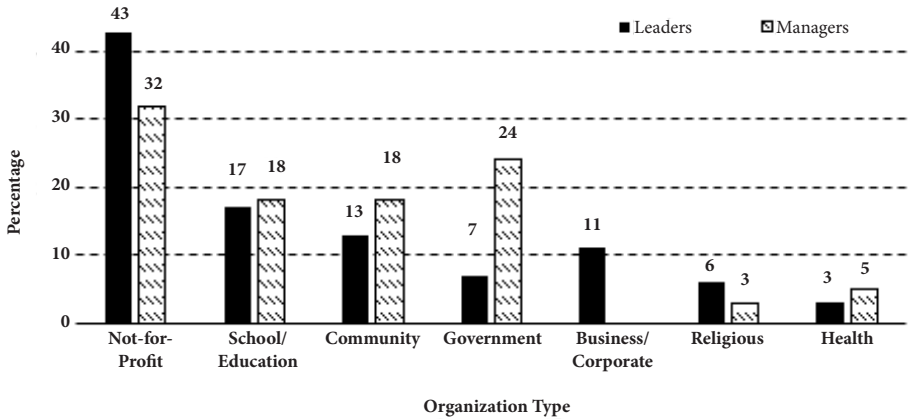


Figure 1. Clustered bar chart showing program leaders and managers from different types of organizations.

Staff Characteristics

Approximately two thirds of program leaders were male (63%). Approximately half of the leaders were 18 to 40 years of age (54%), about a quarter (26%) were between 41 and 50 years, and 20% were aged 50 or above. Leaders had substantial experience working in the outdoor sector: more than 10 years (42%), 5 to 10 years (28%), 2 to 5 years (24%), 1 to 2 years (2%), and 6 months to 1 year (3%).

According to the managers, most or all field staff held relevant qualifications, including outdoor education (26%), other education/teaching (26%), outdoor recreation/instruction (24%), mental health (21%), youth work (17%), community work (7%), physical education (5%), and other (40%). Leaders were generally well qualified, with 93% having completed postsecondary education. Leaders’ highest formal qualifications were undergraduate tertiary education (36%); graduate diploma or equivalent (27%); community college, vocational school, or technical school course (20%); postgraduate tertiary education (9%); secondary school (5%); and primary school (2%).

Program Design

Managers reported that OAI programs consisted of discrete, stand-alone experiences (30%), longer sequences of linked events (30%), and a mixture of both (39%).

Leaders reported a median program length of 4 days. As Figure 2 shows, a small number of leaders reported programs lasting 10 or more days; however, programs running between 1 and 5 days were most common. Similarly, managers reported that most or all of their programs were less than 1 day (19%), 1 day (6%), 2 to 4 days (42%), 5 to 7 days (24%), 1 to 2 weeks (18%), and 2 weeks (29%). Over two thirds of leaders (71%) were involved in programs with one or more overnight stays. Overnight stays were typically spent in permanent buildings (2 nights), semipermanent buildings or other temporary accommodation (3 nights), hiking tents (4 nights), bivouac or other forms of simple shelter (7 nights), and other accommodation (5 nights).

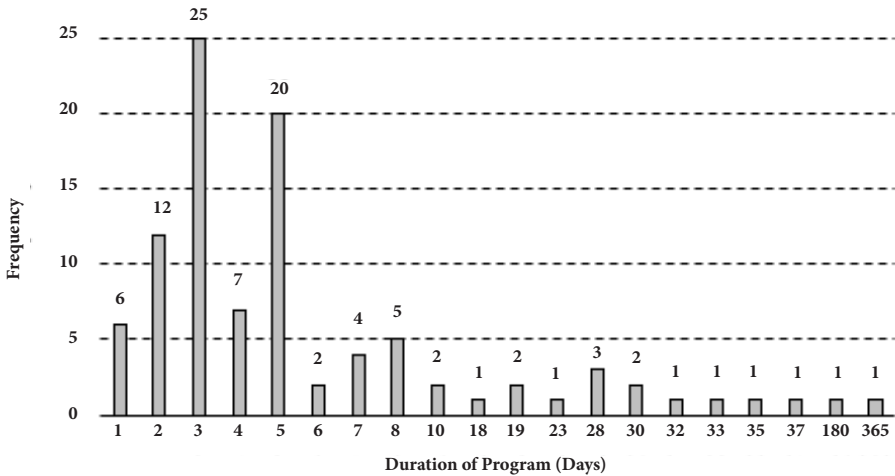


Figure 2. Bar chart showing typical OAI program lengths according to leaders.

The majority of managers (57%) indicated that most or all of their programs were overnight journey based (moving from one location to another), followed by overnight hard-top programs (staying in permanent buildings; 24%), day programs (away for 1 day or less with no overnight stay; 18%), and overnight base-camp programs (staying in tents, bivouacs, or shelters at the same place each night; 13%). Managers reported that the main mode of travel for journey-based programs was hiking (50%), followed by canoeing (15%), cycle touring (13%), kayaking (9%), other (9%), and rafting (4%).

According to program leaders, the most popular activity was hiking (50%), followed by continuous ropes challenge courses (37%), canoeing (30%), initiative exercises (30%), environmental activities (28%), rappelling (23%), pioneer/bush/camp skills (23%), and giant swing/zip line (22%; see Figure 3 for the full list). The most common location for program activities was bush/forest (44%), followed by campgrounds (22%), lakes/rivers (17%), coastal/marine regions (7%), alpine/mountain regions (6%), parks (3%), and desert (1%). Managers reported that group sizes ranged between 2 and 30 (*Mdn* = 10).

According to program leaders, the most common theoretical frameworks featured in the program were experiential learning (73%), challenge by choice (54%), facilitated reflection (52%), natural consequence (51%), and social learning (30%).

According to program leaders, programs often or almost always used group activities requiring teamwork, cooperation and mutual support (91%), mentally challenging experiences (86%), socially or emotionally challenging experiences (78%), physically challenging experiences (75%), reflective experiences (73%), and activities in which participants experienced a sense of risk or uncertainty (67%).

Program leaders reported that they were often or almost always expected to model appropriate ways of responding to others (93%), help participants work toward personal goals (89%), actively participate in the same activities and experiences as participants (88%), allow participants to experience the natural consequences of their actions (88%), discuss connections between camp experiences and everyday lives with participants, and encourage participants to provide feedback to each other (78%).

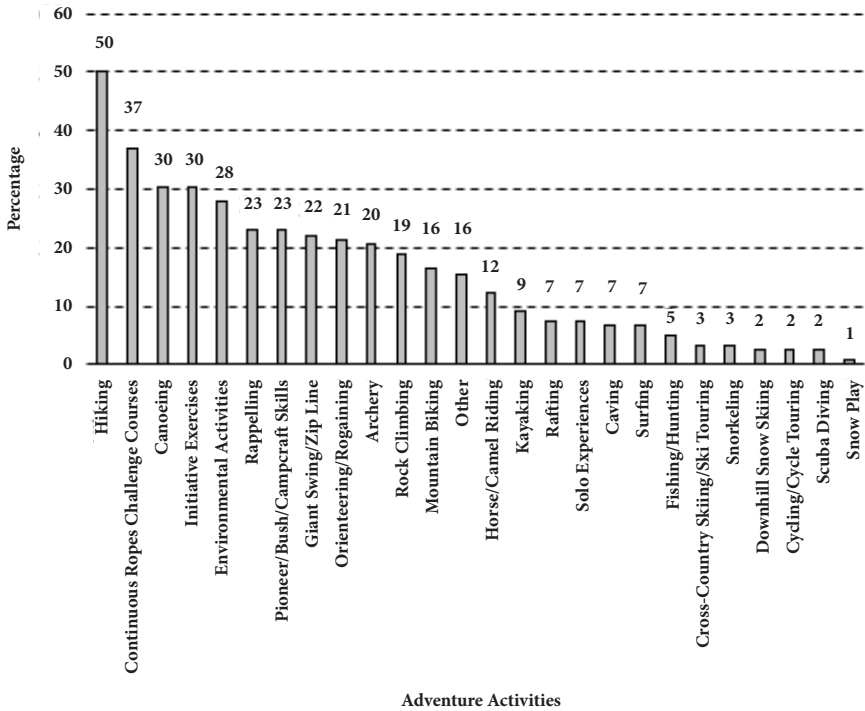


Figure 3. Bar chart showing the types of adventure activities used within OAIs for youth in Australia according to leaders.

Participant Characteristics

According to program leaders, youth participants ranged in age from 8 to 22 years old (*Mdn* = 14, *M* = 14.0). OAI programs ranged in size between six and 360 participants (*Mdn* = 27, *M* = 51.3, *Mode* = 8), with similar numbers of males (*Mdn* = 11, *M* = 28.5) and females (*Mdn* = 11, *M* = 21.9). Between one and 46 program leaders were involved in each program (*Mdn* = 5, *M* = 6.5, *Mode* = 2), including male leaders (*Mdn* = 3, *M* = 3.94) and female leaders (*Mdn* = 2, *M* = 3.24). This implies a staff to student ratio of approximately 1:4.

Program managers indicated that OAIs were most often conducted with mixed-gender groups (56%). Boys-only groups were less common (18%), and no program managers indicated that most of their programs were for girls only. According to managers, participants were referred from school/education organizations (36%), community organizations (26%), government organizations (14%), not-for-profit organizations (10%), health organizations (10%), religious organizations (2%), and businesses/corporations (2%).

Perceived Benefits, Goals, and Outcomes

All program managers surveyed indicated that they believe that all or most participants benefit from participating in their outdoor programs. Program leaders believed that benefits for participants were very large (46%), large (29%), and moderate (25%). They also perceived these benefits to be lifelong (29%), long-term/years (46%), medium-term/months (8%), and short-term/weeks (4%), with 13% being unsure.

The goals of OAI for youth in Australia, according to program leaders and managers, are shown in Table 1 and Figure 4. Leaders rated the importance of the main purpose or goals in their OAI using a 5-point scale (1 = *not at all important* to 5 = *extremely important*), and managers indicated the proportion of their organizations' OAI that target each major goal for participants (on a scale from 1 = *none* to 5 = *all*). Addressing problem behaviors was the top goal, closely followed by personal development and social development.

The extent to which OAI managers and leaders believed that youth participants experienced various outcomes from the programs was measured on a scale from 1 (*none*) to 5 (*all*). The top three outcomes were fun/enjoyment/recreation, personal development, and social development (see Table 1 and Figure 5).

Discussion

OAI With Youth in Australia

OAI involving youth in Australia have become prominent since their modern-day inception in the 1950s; however, there is lack of information about the nature of OAI programming in Australia. This study reveals program managers' and leaders' perceptions about organizational, program, staff, and participant characteristics and perceived outcomes of OAI for youth in Australia.

This study included respondents from all Australian states and territories, with the final sample being broadly representative of each region. Based on the programs surveyed, OAI programs for youth in Australia are mostly run by nonprofit organizations, although school/education, community, and government organizations are also notable providers.

A prototypical leader was a male who had worked in the sector for 10 or more years and who held a tertiary qualification. OAI were typically about two to four days in length, occurred in bush/forest environments, and were journey based, involving one or more overnight stays in tents or other simple shelters. Programs mostly used hiking as the main activity, but often also included a continuous ropes challenge course, canoeing, or initiative exercises.

OAI surveyed involved typical group sizes of approximately 10 participants and were mostly coeducational (although there were also some all-male programs) with a staff to student ratio of 1:4. Programs typically used a combination of experiential learning, challenge by choice, and/or facilitated reflection as a theoretical framework and used personal challenge, exposure to nature, guidance of participant experiences, and consideration of social context in the design of programs.

These commonalities depict an approach for working with youth that provides an environment of change through use of small groups, contact with nature, adventure activities, and therapeutic processes. Despite these characterizations of Australian OAI for young people, organizations use a diversity of practices to cater to the aims and needs of their specific participant populations. This diversity may hinder opportunities for collaboration, but it likely also increases choice for participants.

Surveyed staff believed that the majority of participants obtained significant benefits that lasted long term (years) or lifelong (lasted forever). If managers and leaders are correct about this claim, OAI may be well positioned to play a valuable role in preventing mental health problems and promoting at-risk young people's personal and social development in Australia. Research has demonstrated that participant outcomes can be maintained 6 months after the completion of programs (see Bowen & Neill, 2013a; Hattie, Marsh, Neill, & Richards, 1997), but further research is needed to verify the length of time benefits are maintained.

Table 1
Program Goals and Outcomes for OAI Youth Participants as Perceived by Program Leaders and Managers

Program goal or outcome	Not at all important/ None		Of low importance/ A few		Moderately important/ About half		Very important/ Most		Extremely important/ All	
	Ldr	Mgr	Ldr	Mgr	Ldr	Mgr	Ldr	Mgr	Ldr	Mgr
Addressing Problem Behaviors	0	0	0	0	43	0	16	33	41	67
Personal Development	0	0	0	4	3	0	21	38	76	58
Social Development	0	0	0	4	5	0	15	29	80	67
Fun/Enjoyment/Recreation	0	5	5	5	16	0	39	40	40	50
Environmental Learning	1	0	10	16	35	21	32	32	22	31
Learning Technical Outdoor Skills	1	10	12	10	32	10	33	25	22	45
Regular Classroom Learning	35	50	49	25	13	10	2	10	1	5
Outcomes Experienced										
Addressing Problem Behaviors	8	0	41	8	16	17	23	42	12	33
Personal Development	0	0	1	0	14	4	53	67	32	29
Social Development	0	0	1	0	14	4	56	63	29	33
Fun/Enjoyment/Recreation	0	0	0	0	8	13	46	58	46	29
Environmental Learning	3	0	13	29	29	13	39	46	16	12
Learning Technical Outdoor Skills	3	0	2	17	15	17	47	33	33	33
Regular Classroom Learning	42	29	43	54	6	4	9	9	0	4

Note. Ldr = leaders; Mgr = managers.

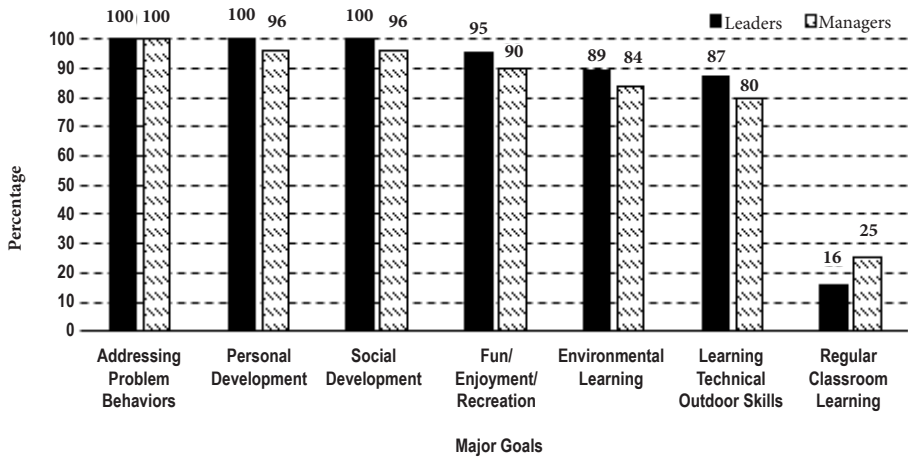


Figure 4. Clustered bar chart showing OAI youth program goals for participants as rated by leaders (*moderately important, very important, extremely important*) and managers (*about half, most, all*).

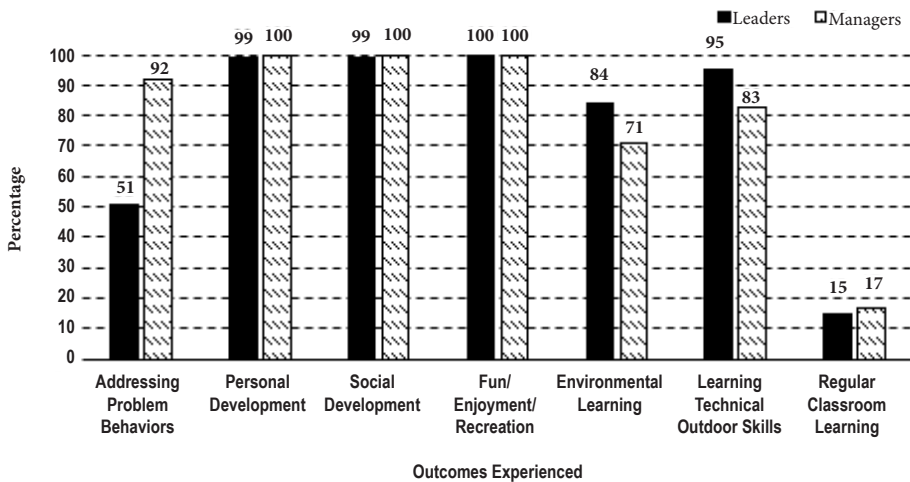


Figure 5. Clustered bar chart showing the extent of OAI youth participant outcomes as rated by leaders and managers (*about half, most, all*).

Consistent with previous research findings (e.g., Deane & Harré, 2013; Neill, 2001b; Russell, 2003), OAI in this study most commonly targeted personal development (e.g., improving self-esteem, confidence, independence, well-being), social development (e.g., improving relationships, group cooperation, teamwork), and problem behaviors (e.g., truancy, substance abuse, depression). Although reducing problem behaviors was one of the main OAI goals, staff did not highlight this as a key outcome. There was also a discrepancy between managers' and leaders' perceptions of participant outcomes in relation to addressing problem behaviors; managers were more convinced that programs successfully addressed problems (92%) than were leaders (51%). The main program outcomes for participants were perceived to be fun, enjoyment, and recre-

ation; personal development; and social development. Fun, enjoyment, and recreation was not rated as a key goal, but staff perceived this as the most notable outcome for participants.

Program providers may need to become clearer about the major goals for participants in their OAI and the strategies that they will use to achieve them. For example, they need to become clearer about the problem behaviors that they are aiming to address (e.g., set specific program objectives and include an assessment of problem behaviors during program intake), the strategies that they will use to do so (e.g., promoting empathy, developing emotion regulation, promoting positive attachment and interactions between family members, and promoting family involvement), and the methods used to determine the degree to which the aims have been achieved (e.g., anecdotal evidence, empirical evidence). Alternatively, perhaps OAIs should have more modest goals regarding addressing problem behaviors and more strongly emphasize recreational fun as one of the program outcomes. Whatever the case, the discrepancy between stated goals and perceived outcomes and between the perceptions of managers and leaders could be explored further within a survey that specifically targets organizations that provide OAIs in Australia.

Limitations

The findings of this study should be interpreted in light of several limitations. First, this study sampled a subset of OAI program managers and leaders who were primarily involved in programs whose aim is to address youth participants' problem behaviors. Thus, OAI programs that targeted adults and/or other program goals, such as mental health, were not included. A second limitation is that the convenience sampling may not have led to a representative sample. As such, findings reported in this study may not be generalizable to all Australian OAIs that target problem behaviors in youth. Third, this study used staff self-reported data. Although self-reporting is a common, efficient, and inexpensive method of gathering information, potential limitations of this approach include social desirability bias and recall bias (Paulhus & Vazire, 2007).

Future Research

To build on this study and the work by Pryor (2009), a dedicated industry profile survey of adventure therapy programs in Australia is recommended. This could allow analyses to be weighted by the number of participants. More accurate descriptions of therapeutically intended OAIs could be obtained using multiple sources and types of data (e.g., practitioner interviews, practitioner focus groups, observer interviews, program case studies, and organizational and program documentation). In addition, further research evaluations of OAIs in Australia (e.g., quasi-experimental, case study, observational, mixed method, and longitudinal design) are needed to help quantify intervention outcomes, compare these with evidence-based research about other types of intervention, and identify important therapeutic elements of these programs.

Conclusion

There is limited previous research that describes the characteristics of therapeutic OAI for youth in Australia and internationally. This study reports on program manager and leader perceptions of Australian OAIs that focus on addressing problem behaviors (e.g., poor school attendance, drug use, depression). Similar to other descriptive studies of OAIs (e.g., Davis-Berman et al., 1994; Gass & McPhee, 1990; Russell et al., 2008), the findings of this study indicate diversity in organizational, program, staff, and participant characteristics. Nonetheless, the most common program appears to be 2 to 4 days long; to involve adventure activities (hiking, continuous ropes challenge courses, and canoeing); and to include group activities requiring teamwork, cooperation, mutual support, and communication, with intentional involvement of program leaders as

a basis of learning. These characterizations reveal an approach for working with youth that provides a change of environment and activity that thus may offer relatively appealing opportunities for developing new behaviors than most mainstream therapeutic interventions for youth (Crisp, 2006).

Program staff identified addressing problem behaviors of participants and personal and social development as the main program goals, and they believed that the majority of young people derived these intended developmental benefits through their participation and involvement. Nonetheless, the results indicate that the use of OAI to address problem behaviors could be improved and that perhaps OAIs undersell fun, enjoyment, and recreation. A dedicated survey of therapeutically focused OAIs in Australia could help to develop a more in-depth profile, and research evaluation studies with a focus on the extent to which major identified goals are achieved and the processes involved fulfill OAIs' potential to play a unique and valuable role in promoting at-risk young people's psychosocial development, addressing problem behaviors, and preventing and treating mental health problems.

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