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ABSTRACT

The coping responses of 251 Australian high school students involved in outdoor education programs were examined using a modified version of the Adolescent Coping Scale (ACS). Coping includes all strategies, whether cognitive, emotional, or physical, that a person uses to negotiate a stable balance between the internal psychological state and external stressors. The students, aged 14-15, participated in a 9- or 10-day Outward Bound program as a school requirement and later indicated which of the 79 coping strategies on the ACS had been used to handle problems encountered during the program. Findings show that adolescents reported a more productive coping profile during the outdoor education experience than adolescents in normative settings. Open-ended responses showed use of some coping strategies specific to the situation, such as thinking about home, writing in a diary, sharing concerns around the campfire, and going to bed early. The strongest predictor of psychological distress and decreased well-being was the use of nonproductive coping strategies such as ignoring the problem or wishful thinking. On the other hand, participants who reported using problem-solving strategies were more likely to experience positive mental states during the program. The study concludes that practitioners should help participants find positive and functional alternatives to nonproductive coping responses. (Contains 22 references.) (SAS)

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Adolescent Coping Styles and Outdoor Education: Searching for the Mechanisms of Change

By James T. Neill & Bernd Heubeck

Abstract

The coping responses of Australian high school students involved in outdoor education programs were examined using a modified version of the Adolescent Coping Scale (Frydenberg & Lewis, 1993a). Participants reported utilising more productive coping strategies during the outdoor education programs than adolescents in normative settings. Open-ended responses showed use of some coping strategies specific to the situation such as thinking about home, sharing concerns around the campfire, using solo time, writing in a diary, and going to bed early. Finally, regression analysis found that 'non-productive' strategies and 'solving the problem' strategies were useful predictors of changes in psychological distress and well being. This suggests that positive intervention in coping skills during outdoor education programs can contribute to improving mental health.

Introduction

The notion that controlled exposure to stressful activities can achieve developmental and even therapeutic effects has been a cornerstone of many outdoor education programs over the past fifty years. On the other hand, critics of such programs often argue that the negative consequences of overstressing participants are too great and hence the programs cannot be justified. Empirical research suggests a balanced view: that outdoor education programs are capable of having notable and lasting beneficial effects. However there is a great deal of variability in outcomes between different programs and different individuals, ranging from negative to no detectable effect through to highly positive effects (see meta-analyses by Cason & Gillis, 1994; Hattie, Marsh, Neill, & Richards, 1997).

One major factor, which has been consistently identified in psychological and sociological research as a mediator of whether a stressful experience proves to be beneficial or detrimental is an individual's coping style. Coping is understood to be the psychological mediation between the perceived demands of the individual's external world and the perceived needs of the individual's internal world. Coping includes all strategies, whether cognitive, emotional, or physical, that a person uses to negotiate a

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stable balance between the internal psychological state and external stressors. Coping is a constant process. Stressors occur all the time, making continuous demands on individuals' coping resources. Coping strategies can achieve the desired effect of returning the individual to a stable stress-arousal state in several different ways. Carpenter (1992) has suggested that coping strategies can work by:

- (a) Minimising the stress response itself,
- (b) Removing or reducing situational demands;
- (c) Increasing available resources (e.g., obtaining professional help); or,
- (d) Altering the cognitive appraisal of the stressor.

Coping attempts, however, are not always effective. Such 'non-productive' strategies may have no effect at all or may even make the distressful experience worse.

The development of an effective and versatile repertoire of coping responses is one of the fundamental elements of healthy psychological and behavioural growth. Adolescence is a critical period during which new coping strategies become available, are tested, and are integrated into individuals' personal style. Recent research in Australia has indicated that, although adolescents are resourceful in managing their concerns, there are numerous strategies, which could be developed to enhance their repertoire of coping responses (Frydenberg, 1993; Frydenberg & Lewis, 1991a, 1991b, 1993a, 1993b, 1994a, 1994b). To date, however, there has been very little study of the coping behaviours used during outdoor education intervention programs. This is somewhat surprising given evidence from studies of other forms of intervention that improvements in coping strategies can be taught (e.g., Law, Logan, & Baron, 1994; LeoNora & Frydenberg, E., 1993; Meichenbaum, 1985; Rice, Herman, & Petersen, 1993).

The present study is an attempt to fill this gap in the research literature. In particular, we were interested to learn about the nature of the outdoor education experience in terms of how participants reported coping with the difficulties that they encountered. It seemed important to investigate whether or not the profile of coping responses during outdoor education differed from how adolescents report coping in everyday life. If the outdoor education situation is beneficial for character development then presumably a more positive profile of coping responses by adolescents should be found. We were also interested to find out what types of coping responses adolescents reported which were specific to the outdoor education setting. Perhaps this could point to some valuable processes in the outdoor education setting, which could be enhanced or even utilised by other forms of intervention. Finally, we wanted to know whether the use of different styles of coping could be used to predict changes in the participants' mental health outcomes after the program. In summary, our research questions were:

How do adolescents cope with outdoor education programs? (Q1)

Do adolescents cope differently during outdoor education programs compared to normative settings? (Q2)

What coping strategies specific to outdoor education would adolescents report? (Q3)

Are coping styles useful predictors of mental health outcomes? (Q4)

Method

Participants.

Participants in the study were 251 (143 male and 108 female) 14 and 15 year old students from 4 Australian high schools. In total there were 13 groups of between 16 and

23 participants. All participants attended a 9 or 10 day Outward Bound Australia program designed for school students. For over 90% of the participants attendance on the outdoor education program was a compulsory part of their schooling and all programs took place during the school term. Further information about the nature of the Outward Bound program is described elsewhere (e.g., Neill, 1994; Outward Bound Australia, 1994; Richards, 1977).

Instrument and procedure.

A modified version of the general form of the Adolescent Coping Scale (ACS) (Frydenberg, 1989) was used in this study. The ACS is an 80-item (79 structured, and 1 open-ended) instrument which reliably assesses 18 conceptually and empirically distinct coping strategies. The ACS was designed to examine coping from an adolescent perspective and to contribute to the development and evaluation of coping enhancement interventions (Frydenberg & Lewis, 1993a). The ACS was developed initially from open-ended descriptions of coping behaviour, which were content-analysed, leading to experimental versions of a quantitative instrument.

For the present study, the instructions and wording of the ACS form were modified from the present tense which asked participants how they generally cope with problems or difficulties, to the past tense which asked participants how they coped with problems or difficulties encountered during the outdoor education program. Participants rate the degree to which they generally use each of the 79 coping strategies on a five point Likert scale from "1 = doesn't apply or don't do it" to "5 = used a great deal." Frydenberg and Lewis (1993a) also argue that the 18 ACS scales can be conceptualised in terms of three higher order factors - Reference to Others, Solving the Problem, and Non-Productive. Descriptions of the 18 ACS scales and their higher order factors are presented in Table 1.

Results

Q1: How do adolescents cope with outdoor education programs?

In Table 2 the 18 ACS scales are ranked in order of most frequently used strategies to least frequently used strategies. The data suggests a number of observations. The top five strategies (Work Hard and Achieve, Focus on Solving the Problem, Focus on the Positive, Seek Relaxing Diversions, and Seek Social Support) stand out as those, which were used by 75% or more participants at least sometimes during the program. The bottom five strategies (Tension Reduction, Seek Professional Support, Social Action, Seek Spiritual Support, Not Coping) stand out as those which 66% or more participants used either a little or not at all. 67% of participants reported seeking very little or no professional help (from instructors or teachers) during the outdoor education program. This may be a reflection of the independence and self-responsibility that participants are encouraged to use. However, if it reflects a perceived inaccessibility of the professional staff, this may be a feature of the programs, which could be improved. 72% of participants reported using "Not Coping" at some time during the program, although no participant reported using this strategy a great deal. 50% of students reported using the top ranking strategy, Work Hard and Achieve, either often or a great deal, which is in contrast with only 2.6% of participants who reported using Ignore the Problem often or a great deal.

Table 1
Adolescent Coping Scale (ACS) Factors and Scale Descriptions

Factor	Scale	Description
Non-Productive	Ignore the Problem	Conscious blocking out of the problem
Non-Productive	Invest in Close Friends	Engaging in a particular intimate relationship
Non-Productive	Keep to Self	Withdrawal from others and wish to keep others from knowing about concerns
Non-Productive	Not Coping	Inability to deal with the problem and the development of psychosomatic symptoms
Non-Productive	Seek to Belong	A caring and concern for one's relationship with others in general and more specifically concern with what others think
Non-Productive	Self-Blame	Individual sees him/herself as responsible for the concern or worry
Non-Productive	Tension Reduction	Attempt to make oneself feel better by releasing tension
Non-Productive	Wishful Thinking	Hope and anticipation of positive outcome
Non-Productive	Worry	Concern about the future in general terms or more specifically concern with happiness in the future
Reference to Others	Seek Professional Help	Use of a professional adviser, such as a teacher or counsellor
Reference to Others	Seek Social Support	An inclination to share the problem with others and enlist support in its management
Reference to Others	Seek Spiritual Support	Prayer and belief in the assistance of a spiritual leader or God
Reference to Others	Social Action	Letting others know what is of concern and enlisting support by writing petitions or organising an activity such as a meeting or rally
Solving the Problem	Focus on Solving the Problem	Focuses on tackling the problem systematically and takes into account different points of view or options
Solving the Problem	Focus on the Positive	Positive and cheerful outlook on the current situation, including seeing the 'bright side' of circumstances and seeing oneself as fortunate
Solving the Problem	Physical Recreation	Playing sport and keeping fit
Solving the Problem	Seek Relaxing Diversions	Leisure activities such as reading and painting
Solving the Problem	Work Hard and Achieve	Commitment, ambition, and industry

Note. Adapted from Frydenberg & Lewis, 1993a, pp.18-21, 41.

Table 2

Modified ACS Scale Ranks, Means, Standard Deviations, and Percentage of respondents for each level of coping strategy usage.

	Rank	Mean	SD	Didn't use it %	Used very little %	Used someti mes %	Used often %	Used a great deal %
Work Hard and Achieve	1	3.49	0.73	0.5	8.6	41.0	42.8	7.2
Focus on Solving the problem	2	3.42	0.72	1.3	7.5	41.9	44.9	4.4
Focus on the Positive	3	3.24	0.74	1.3	9.3	46.5	35.8	7.1
Seek Relaxing Diversions	4	3.18	0.90	3.9	20.6	40.8	26.8	7.9
Seek Social Support	5	3.10	0.77	1.8	19.7	50.0	24.6	3.9
Wishful Thinking	6	2.92	0.89	7.2	23.3	44.4	20.6	4.5
Seek to Belong	7	2.89	0.73	3.2	24.7	52.5	18.7	0.9
Physical Recreation	8	2.86	0.86	2.7	35.9	37.7	19.5	4.1
Worry	9	2.62	0.83	10.3	32.6	44.6	11.2	1.3
Invest in Close Friends	10	2.49	0.88	14.3	37.1	34.1	13.4	0.9
Keep to Self	11	2.47	0.77	7.0	40.8	39.5	11.4	1.3
Self-Blame	12	2.32	0.85	13.7	44.2	28.8	11.9	1.3
Ignore the Problem	13	2.22	0.70	12.1	49.3	35.9	2.2	0.4
Tension Reduction	14	2.03	0.65	18.9	60.5	18.4	2.2	0.0
Seek Professional Help	15	2.00	0.88	29.6	37.8	23.9	7.8	0.9
Social Action	16	1.93	0.78	30.1	39.7	24.2	5.9	0.0
Seek Spiritual Support	17	1.91	0.94	40.7	31.6	17.3	9.5	0.9
Not Coping	18	1.91	0.61	28.1	55.3	15.8	0.9	0.0

Note. N varies between 218 and 233.

To further examine the type of coping reported by participants, the distributions of the three higher order coping styles are presented in Figures 1, 2, and 3, with their descriptive statistics. Figure 1 suggests a relatively low central tendency for Reference to Others coping, but with a positive skew to the distribution. In other words, there is a wide range in the distribution of usage of this coping style, with a number of students reporting relatively high levels of referring to others. Figure 2 shows that Non-Productive Coping strategies had a close to normal distribution, ranging from a few adolescents reporting virtually no usage of these strategies, the majority reporting a moderate level of usage, and a few reporting a moderate-high level of usage. Figure 3 reveals an overall greater use of Solving the Problem coping strategies than Reference to Others or Non-Productive Coping. The distribution has a negative skew, suggesting that while most adolescents reported using a reasonably high level of Solving the Problem coping strategies, there were a small number of people with fairly low level of usage of this style.

These distributions illustrate the point that there is a wide range of coping responses to outdoor education. Clearly this means that to understand the effect of a program on any individual would require an understanding of the individual in question. While it might be easy to say, for example, that on average adolescents report using Solving the Problem

coping strategies at least sometimes, this ignores the small but important number of adolescents who report doing so only a little or not at all.

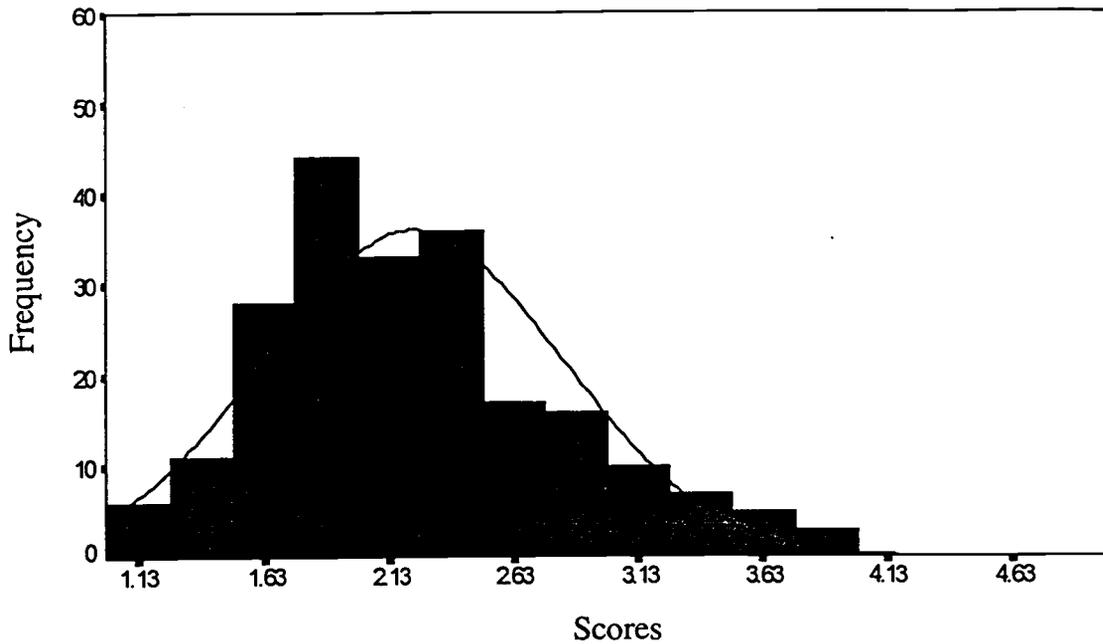


Figure 1. Reference to Others coping strategy usage reported by adolescent outdoor education participants. ($N = 216$, $X = 2.22$, $SD = .60$, Kurtosis = .09, Skewness = .63, Minimum = 1.00, Maximum = 3.93).

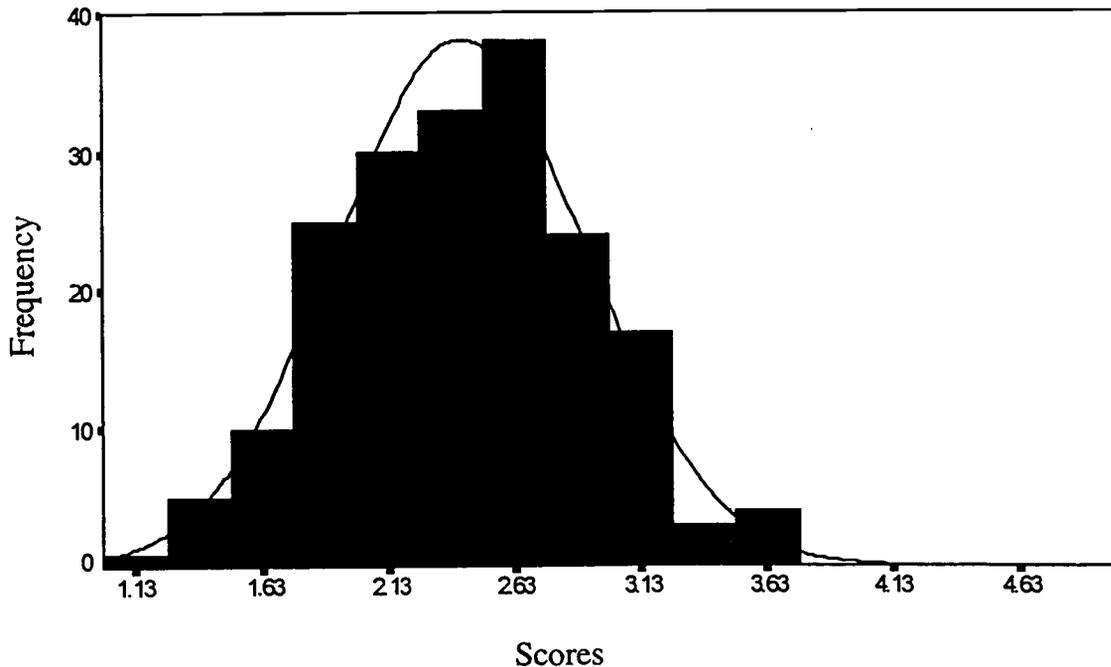


Figure 2. Non-Productive coping strategy usage reported by adolescent outdoor education participants. ($N = 190$, $X = 2.41$, $SD = .50$, Kurtosis = -.36, Skewness = .08, Minimum = 1.17, Maximum = 3.68).

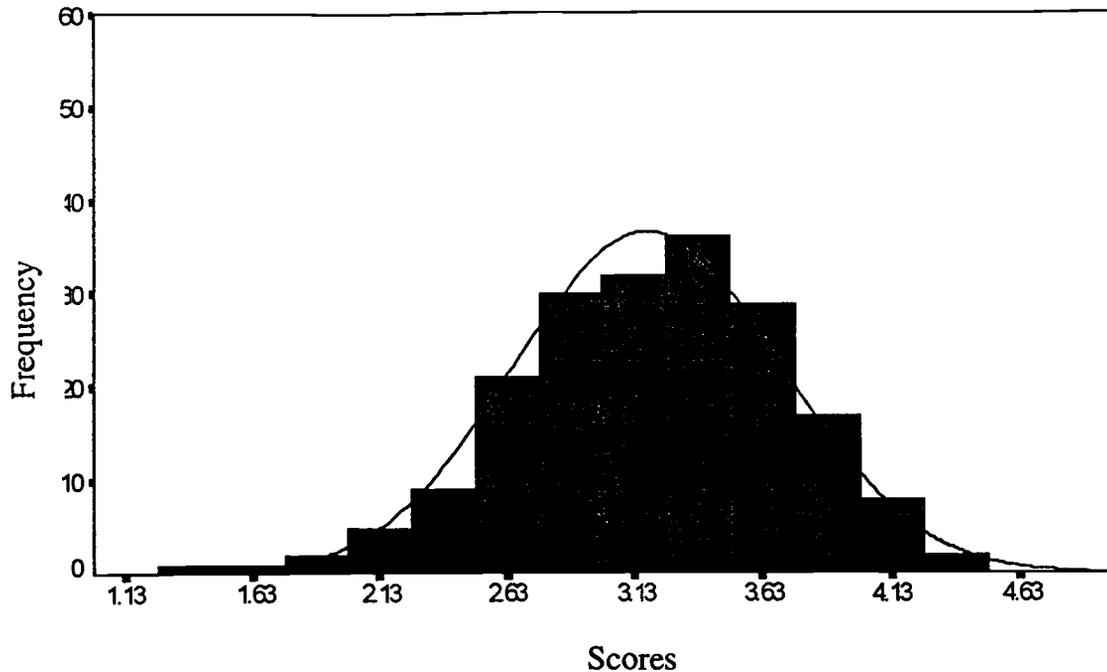


Figure 3. Solving The Problem coping strategy usage reported by adolescent outdoor education participants. ($N = 193$, $X = 3.18$, $SD = .52$, Kurtosis = .39, Skewness = -.40, Minimum = 1.44, Maximum = 4.37).

Q2: Do adolescents cope differently during outdoor education programs compared to normative settings?

The means for each of the modified ACS scales were compared with the Australian normative data presented by Frydenberg and Lewis (1993a) using independent samples *t*-tests (see Table 3). These analyses indicated that there were 11 strategies that adolescents reported using significantly less during the outdoor education program than adolescents in normative settings (Relaxing Diversions, Invest in Close Friends, Worry, Self-Blame, Keep to Self, Physical Recreation, Tension Reduction, Not Coping, Ignore the Problem, Wishful Thinking, and Seek to Belong). On the other hand, adolescents reported using five coping strategies significantly more than adolescents in a normative setting (Focus on Solving the Problem, Focus on the Positive, Seek Social Support, Seek Professional Help, and Social Action). Broadly speaking, it appears that adolescents involved in outdoor education reported using more productive and less non-productive coping strategies.

There are numerous methodological caveats to such a conclusion, however. In particular, there is potentially a cohort issue. The normative data was collected from students from Year 7 to 11, with a mixture of backgrounds, whereas the data from the current study is collected from Year 9 students, the majority of whom were from private school backgrounds. The modification of the ACS also makes comparisons somewhat problematic in that participants were asked what strategies they had used during a particular time frame. The outdoor education setting clearly restricted the use of several coping strategies such as drug use, investing time in intimate relationships (the programs were mostly single sex), and physical recreation (although physically-based, the program did not provide facilities and time for traditional sport, etc.). Nevertheless, these results

suggest that the outdoor education program was generally associated with a more positive coping style by participants compared to the normative data on adolescent coping in everyday life.

Table 3

Outward Bound ACS Ranks, Means, and Standard Deviations compared with Normative ACS Ranks, Means, and Standard Deviations.

	Outward Bound			Normative			t-value
	Rank	Mean	SD	Rank	Mean	SD	
Seek Relaxing Diversions	4	3.18	0.90	1	3.80	0.80	-8.91
Invest in Close Friends	10	2.49	0.88	5	3.08	0.92	-8.02
Worry	9	2.62	0.83	8	3.02	0.86	-5.62
Self-Blame	12	2.32	0.85	12	2.72	0.90	-5.52
Keep to Self	11	2.47	0.77	11	2.82	0.88	-4.95
Physical Recreation	8	2.86	0.86	4	3.20	0.90	-4.64
Tension Reduction	14	2.03	0.65	14	2.32	0.88	-4.17
Not Coping	18	1.91	0.61	15	2.16	0.68	-4.01
Ignore the Problem	13	2.22	0.70	13	2.40	0.80	-2.65
Wishful Thinking	6	2.92	0.89	6	3.10	0.86	-2.50
Seek to Belong	7	2.89	0.73	9	3.04	0.76	-2.22
Work Hard and Achieve	1	3.49	0.73	2	3.58	0.70	-1.38
Seek Spiritual Support	17	1.91	0.94	16	1.88	1.02	0.39
Focus on Solving the Problem	2	3.42	0.72	3	3.24	0.74	2.74
Focus on the Positive	3	3.24	0.74	7	3.05	0.82	2.76
Seek Social Support	5	3.10	0.77	10	2.84	0.88	3.68
Seek Professional Help	15	2.00	0.88	17	1.72	0.85	3.96
Social Action	16	1.93	0.78	18	1.36	0.58	9.24

Note. N varies between 219 and 231 for the Outward Bound data, and N = 673 for the normative data.

Q3: What coping strategies specific to outdoor education did adolescents report?

The final question on the ACS provides participants with a free form opportunity to describe any other things that they did to cope with his or her problems or concerns during the outdoor education program. Exactly half of the adolescents responded to this question. Of these responses, many of them could be linked to one or more of the 18 established coping strategy scales, however others appeared to represent coping strategies specific to the outdoor education setting. The responses were grouped into general categories agreed upon by the two researchers and are listed in the Appendix. The key features are that:

Homesickness (e.g., "Think of things I enjoy at home") was readily reported, and appears to be an application of Wishful Thinking in an outdoor education setting, although it could be a problem itself which requires a coping response (e.g., see Thurber, 1995).

The outdoor education specific coping strategies highlighted the role of the campfire in providing a forum for social sharing of concerns and searching for solutions (e.g., “Sat around camp fire drinking hot quick and thinking or talking about it”).

There were a number of references that suggested some participants found value in solo time and writing problems down in a diary (e.g., “Think through everything whilst on solo time”).

A number of adolescents said that they went to bed early or went to sleep as a strategy for making their problem or concern go away (e.g., “Tried to go to bed early so I can avoid the problem when I’m sleeping”). Instructors should take note that participants who choose to go to bed early may be doing so to cope with a difficulty or problem, which they feel unable to deal with in any other way.

There was considerable endorsement of Seek Social Support strategies (e.g., “Get together with friends and talking to each other about problems”), supporting the evidence from Table 2 that this is an important strategy in the outdoor education setting. There was very little mention of using the accompanying professionals as sources to help with coping. This suggested either a perceived inaccessibility of these people or that it is the professionals’ role to facilitate an environment where productive use of other coping strategies can be accessed, rather than direct reliance on the instructor.

Q4: Are coping styles useful predictors of mental health outcomes?

In previous work we reported on the mental health outcomes of this outdoor education program using the same sample of participants (Neill, 1994; Neill & Heubeck, 1995). The General Well Being (Veit & Ware, 1983; Heubeck, 1993) is a 38-item adaptation of the Mental Health Index, which for the purposes of the current analysis was treated as having two independent factors - psychological well-being and psychological distress (see Neill, 1994 for further psychometric discussion).

Our question in this study was whether any of the three coping style factors were useful predictors of changes in psychological well being and psychological distress. Multiple linear regression was used, with the relevant pre-program mental health measure included as an independent variable. By conducting the analyses in this way, the influence of the baseline levels of well being and distress were removed, so that the analyses examined the influence of coping styles on changes in mental health.

The results in Table 4 show the standardised beta weights for the pre-program mental health score and the coping styles as predictors of short and long term mental health outcomes. The table also reports the change in R square (the % of variance explained) when the coping styles are included in the prediction equation after accounting for the effect of the pre-program mental health score. For all mental health outcomes the change in R square is significant, showing that coping styles are useful predictors over and above baseline mental health states. In particular, coping styles appear to be useful for predicting the psychological distress and psychological well-being that participants reported experiencing during the program (the short-term outcomes) (25.7% and 28.7% of the variance respectively).

The strongest predictor of mental health outcomes was the use of non-productive coping strategies (such as Not Coping, Tension Reduction, Wishful Thinking, etc.). The Solving the Problem coping style was a positive predictor of mental health outcomes, while Reference to Others was not a significant predictor. In practical terms, this finding suggests that helping or facilitating participants to find alternatives to their non-

productive strategies (particular strategies that focus more directly on the problem at hand) during outdoor education programs, is likely to reduce their experience of psychological distress and increase their psychological well-being during the program. The effect of these coping strategies on longer-term mental health outcomes is not as strong, but still evident.

Table 4

Standardised beta weights for coping strategies as predictors of mental health outcomes.

Variables	Psychological Distress Short-term	Psychological Distress Long-Term	Psychological Well-Being Short-term	Psychological Well-Being Long-Term
Psychological Distress Pre-test	.150	.287*		
Psychological Well-Being Pre-test			.002	.461**
Reference to Others	-.165	-.033	-.013	.002
Non-Productive	-.541**	-.373**	-.515**	-.106
Solving the Problem	.218*	.141	.510**	.227*
Change in R Square due to Coping IVs	.257**	.097**	.287**	.057*
N	130	122	132	124

Note. More positive mental health scores are higher scores for Psychological Distress and Psychological Well-Being. * $p < .05$; ** $p < .01$

Summary and Conclusions

One of the recent thrusts of cognitive, behavioural, and therapeutic psychology has been a growing focus on the importance of coping skills in individuals' lives. To date, however, there has been little published investigation of the coping processes used by participants in outdoor-based educational or therapeutic experiences. If the use of adventure mediums for therapeutic purposes is to gain more credence and improve in its efficacy, then a more thorough understanding of coping processes in these applied settings is desirable.

The findings from the present study suggest that, on the whole, adolescents reported a more productive coping profile during the outdoor education experience than adolescents in normative settings. There were, nevertheless, fairly normal distributions of coping responses, suggesting a wide range of individual responses, with most participants (72%) reporting "not coping" at least a little during the program. Overall, however, the generally positive coping profile reported by the adolescents is consistent with theoretical implications about the role of coping in influencing outdoor education programs outcomes:

As adventure experiences take place in different and often unfamiliar environments, there is much reassessment of the strategies used by participants to cope with and understand their world and their conceptions of self. Many of the strategies previously used to explain and cope with the world no longer work. Our ability to discount our own competence and efficacy, for example, is of little use if we are to cope and survive the day. Our comparisons with other people change as we experience the need to cooperate with them rather than judge, dismiss or compete with them. Our goals become more specific and challenging and thus we receive much feedback about progress towards those goals. Finally, we associate with others who appear to be coping with the adventure

experience. Thus, for many, there is ample opportunity to replace their coping strategies with newer more functional and positive strategies... (Hattie, et al., 1997, p.75)

The open-ended responses to the modified ACS provided useful insight into outdoor education-specific coping strategies used by adolescents. "Thinking about home" was a notable feature, as were strategies such as withdrawing and going to bed early. On the more productive side, a number of participants mentioned talking with friends, particularly around the campfire, and spending valuable time alone in the outdoors. Surprisingly few participants reported using the professional help of accompanying instructors or teachers.

Finally, this paper examined the usefulness of three broad coping styles (Non-Productive Coping, Reference to Others, and Solving the Problem) in predicting mental health outcomes. The strongest predictor of psychological distress and well being was the use of non-productive coping strategies. In other words, if participants reported doing a lot of Ignoring the Problem, Wishful Thinking, and so on, then they were more likely to report high levels of psychological distress during and following the program, and lower levels of psychological well-being during the program. On the other hand, participants who reported using Solving the Problem coping strategies, such as Work Hard and Achieve, Focus on the Positive, and so on, were more likely to experience positive mental states during the program.

These findings offer valuable insight for the training of practitioners to deliver more enjoyable, educational, and therapeutic experiences for people in the outdoors. By helping participants to find positive and functional alternatives to non-productive coping responses it appears that mental health benefits can follow. Adventure education settings offer fascinating and challenging situations in which to systematically apply and further our understanding of the role of coping strategies as causative processes in the quality of psychological experience.

References

Carpenter, B.N. (1992). Issues and advances in coping research. In Carpenter, B.N. (Ed.) *Personal coping: Theory, research, and application* (pp. 1-14). Praeger, Connecticut.

Cason D., & Gillis, H.L. (1994). A meta-analysis of outdoor adventure programming with adolescents. *Journal of Experiential Education*, 17(1), 40-47.

Fry, S.K., & Heubeck, B. (submitted for publication). *The effects of personality and situational variables on mood States during Outward Bound wilderness courses*. Canberra, Australia: Australian National University.

Frydenberg, E. (1993). The coping strategies used by capable adolescents. *Australian Journal of Guidance and Counselling*, 3, 1-8.

Frydenberg, E., & Lewis, R. (1991a). Adolescent coping in the Australian context. *Australian Educational Researcher*, 18, 65-82.

Frydenberg, E., & Lewis, R. (1991b). Adolescent coping: the different ways in which boys and girls cope. *Journal of Adolescence*, 14, 119-133.

Frydenberg, E., & Lewis, R. (1993a). *Adolescent coping scale: Administrator's manual*. The Australian Council for Educational Research, Hawthorn, Australia.

Frydenberg, E., & Lewis, R. (1993b). Boys play sport and girls turn to others: Age, gender and ethnicity as determinants of coping. *Journal of Adolescence*, 16, 253-266.

Frydenberg, E. & Lewis, R. (1994a). Coping with different concerns: Consistency in coping strategies used by adolescents. *Australian Psychologist*, 29, 45-48.

Frydenberg, E., & Lewis, R. (1994b). The Adolescent Coping Scale: Multiple forms and applications of a self-report inventory in a counselling and research context. Paper presented at American Research Association Conference, Atlanta.

Hattie, J.A., Marsh, H.W., Neill, J.T., & Richards, G.E. (1997). Adventure education and Outward Bound: Out-of-Class Experiences that make a lasting difference. *Review of Educational Research*, 67, 43-88.

Heubeck, B. (1993). *General well being*. Canberra, Australia: Australian National University.

Law, A., Logan, H., & Baron, R.S. (1994). Desire for control, felt control, and stress inoculation training during dental treatment. *Journal of Personality and Social Psychology*, 67, 926-936.

LeoNora, M.C., & Frydenberg, E. (1993). *Coping for capable kids*. Hawker Brownlow Foundation: Melbourne, Australia.

Meichenbaum, D. (1985). *Stress inoculation training*. New York: Pergamon Press.

Neill, J.T. (1994). *The effect of Outward Bound high school programs on adolescents' self-concept, mental health, and coping strategies*. Unpublished honours thesis, Australian National University, Canberra, Australia.

Neill, J.T., & Heubeck, B. (1995, January). Insights into adolescents' mental health during Outward Bound programs. Paper presented to the 9th National Outdoor Education Conference, Gold Coast, Queensland, Australia.

Outward Bound Australia (1994). *Explanatory notes to teachers participating in Outward Bound school's programs*. Canberra: Australian Outward Bound Foundation.

Rice, K.G., Mindy, A.H., Petersen, A.C. (1993). Coping with challenge in adolescence: a conceptual model and psycho-educational intervention. *Journal of Adolescence*, 16, 235-251.

Richards, G.E. (1977). *Some educational implications & contributions of Outward Bound*. Canberra, Australia: National Outdoor Education & Leadership Services.

Thurber, C.A. (1995). The experience and expression of homesickness in preadolescent and adolescent boys. *Child Development*, 66, 1162-1178.

Veit, C.T., & Ware, J.E. (1983). The structure of psychological distress and well being in general populations. *Journal of Consulting and Clinical Psychology*, 51, 730-742.

Appendix

Descriptions of Other Coping Strategies used during Outward Bound Programs.

Theme	Verbatim statements about coping made by students
Didn't have any problems	<p>Basically I didn't have too many worries so I didn't do anything else.</p> <p>I had a good time all the time</p> <p>I had few problems worth dealing with.</p> <p>None, I didn't have many problems or concerns</p>
Didn't understand question	<p>People went to fast when walking</p> <p>Sing, punch my pillow, watch TV, read a book, play piano</p> <p>Talk to my parents, sister, friends</p>
Focus on the Positive	<p>[Looked on the bright side of things and didn't let things worry me if they were little.</p> <p>[Thought positive about what I was doing because I was thinking negative and had to change my feelings.</p> <p>I tried to see how everyone else was coping and realised that we were all going through the same...</p> <p>The way I mainly coped was by knowing that I could do anything and that I shouldn't give up!</p> <p>Think positively - encouraged others, which made me, feel better.</p> <p>Think of the good points of Outward Bound.</p> <p>Thought about the good things to forget the bad things.</p> <p>Have a positive outlook on life.</p> <p>Thought about those worse off.</p> <p>Reassured myself everything was going to be all right.</p> <p>Think of happy things and just try to forget all my problems.</p> <p>Try to think positive.</p> <p>Think things will get better.</p> <p>Encourage myself.</p>
Homesickness - Wishful Thinking	<p>Homesick - cried, concentrate on other things; Exhausted - told myself, if other people can, I can.</p> <p>Wished they would go away.</p> <p>Homesickness.</p> <p>Nothing else except thinking about going home.</p> <p>Thought about home.</p> <p>Just thought about how good the future would be at home.</p> <p>[Cried, thought of my family, my room. Miss home, shouldn't have come to Outward Bound, waste of money]</p> <p>[Imagine myself at home eating pizza and drinking cola in my warm bed watching movies on TV]</p> <p>[Thought about McDonalds, how good it will feel to see my parents and have the comforts of home]</p> <p>[Thought how long to go. Thought of home and it wasn't long until I was back in it, away from Outward Bound.</p>

- [Went somewhere by myself and thought about family. Sometimes don't talk just do my work.]
I hoped for the best and just thought about going home.
I just thought about my parents.
I thought how long it would be until I would be home.
Kept busy when homesick. Did not have many other problems.
Kept thinking that it was only for 10 days.
Relax. Think of home. Think I'm in my bed.
Think about my parents.
Think of things I enjoy at home.
Thought about McDonalds and coke and home the whole time.
Thought about home.
Too long. Got homesick. Missed family and friends.
- Keep to Self
I kept my mouth closed most of the time and did not tell the people
I disliked that I disliked them.
Just kept my problems to myself because the more you worry the worse of it is.
Being by myself.
Kept to myself and tried to fit in.
Sat by myself.
Sat by myself, thought the problem through.
Spend time on my own.
Spent more time on my own.
Spent some time by myself.
Time to self.
- Miscellaneous
I took a bit of time by myself to think it out
Write them down & my thoughts on paper.
[Thinking about things and others problems. Talk to myself, support. Think I can't let myself lose.
Instead of worrying about something the day before I waited until the day came.
Accept the problem.
Keep in silence and make the stop teasing me and say sorry.
Made jokes. Dreamed.
[I did all of the above things to cope. I had a great time & learnt many things about myself & others.
Try not to fight.
Considered others. Enjoyed Outward Bound.
Wrote them down on paper.
- Nothing / Ignore
Nothing. (2)
Nothing really.
Didn't think about them.
Just had fun and put it out of my mind.
None, that was excellent.
Just focused on what I was doing presently instead of thinking about the future.
Was to block the problems out of my mind, so I could have fun.
Just left the problem how it was.

- Outdoor Education Specific
- [Ignore the problem as I was one of the smallest and just coped.
Sometimes I would ignore.
Thought about other things.
Sometimes I shut up and did nothing.
[I did the things asked of me. Like on the ropes course I put out my fear of heights and did the high section.
- [I thought them out around the fire and if I couldn't solve them I asked for ideas.]
[Talk to people in my bivvy group. Tried to keep my friends together, stop them fighting each other.
Talked to a close friend. Told lots of jokes around the campfire to keep me and group positive and happy.
I hate the cold. So I put more jumpers on than usual.
I put a jumper on because I was cold.
I sat and looked at the stars and thought about my home.
I tried to let out anger by hitting/kicking things in the bush or took it out on someone else.
Think through everything whilst on solo time.
I used the solo time, thought about if before and after sleeping, kept myself happy by being with friends.
Lied down inside the tent.
Put up a Bivi. I didn't have that many problems or concerns.
Reassured my self.
Singing - making up songs. Thought of people at home to cheer myself up. Friday night.
Talked around the campfire, asked each other questions and got to know each other better.
Sat around campfire drinking hot quick and thinking or talking about it to one other person.
Thought of Outward Bound's motto and never gave up.
Tried to kill time by eating more, enjoying myself. Staying up late to get a better sleep.
Eat.
Cook.
Writing in my journal in Solo Time, thinking about things through properly, time just to stop.
- Professional Help
- Get advice from someone.
Asked the instructor/teacher, others came to me for help as well]
Ask for advice/help.
- Relax
- Needed time to myself to relax and let feelings go, by writing them down or by thinking about them.
Relaxing.
[Frustrated - sat down at the end of the day and unwound for 5 minutes then felt refreshed]
[layback and relax, lay down and blank out everything and think one thing - an activity I like doing
I just tried my best and relaxed.

- Relaxed.
Found time to relax.
Just relax and think about the problem and try to sort them out in my head and dream about home.
- Sleep Laugh at jokes.
Sleep - or keep busy.
Slept. (2)
[Go to bed, hoping problem less in the a.m.
Tried to go to bed early so I can avoid the problem when I'm sleeping.
Go to sleep.
Go to bed to get out of the cold.
Go to bed early.
- Social Support Speak to other kids on the trip.
Had a long group discussion about personal things.
Talking to others and helping each other out.
Spoke to friends. Have fun.
Get together with friends and talking to each other about problems.
[Talked to other mates. Got on with people I didn't like. Learnt to share, be generous, trust]
Talking to friends about problems.
Talked to friends. (2)
Talk to others.
Tried to help others. Gave encouragement to others when I needed it.
I talked to my friends if they had the same concern.
Told my friends the problem.
Talked to close friends. Thought of better things.
Share them with group. Put them out of mind.
Talked about the problem and considered our options.
Talked to someone about my worries who I trust.
Tried to think about the problem and ask advice from friends.
Talked to a friend - gave me encouragement.
Worked them out as a group. Talked to other people in the group.
Don't know, just asked friends what they would do.
Talked to others to see if they have the same problem.
Listened to other opinions.
Tried to help others with problems
Consider other's feelings.
Think about group. Co-operate. Not just think about self.
Thinking of when I get home.
[Looked at how other people felt before criticising. Said what I feel. Tried to help others.]
- Solve the Problem Thought to myself how I could solve the problem.
Think about the problem.
Learnt to deal with them.
Saw through it. Tried to think in advance.
Concentrated on the problem

Spiritual Support	Praying. Occasionally hope for the best/pray. Pray that things will get a lot better.
Tension Reduction	I took my problems out on others or my friends. Just really took it out on others and day dreamed. [Took my anger out at the hill I was walking up and fell over, which made it worse.]
Work Hard and Achieve	Did my best no matter what. Tried my best in everything I did. Gave it my all. Did things to the best of my ability. Try to do the work to the best of my ability. Have a go. Had goals. Tried not to give up. Pushed myself until I got over it because I knew I could. Work harder. Worked at the problem.

Note 1. Truncated answers are in square brackets.

Note 2. Spelling and grammar errors are only corrected if semantically necessary.

Note 3. Multiple coping strategies reported by participants were separated into different categories.



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