

**Coding Manual Used to Complete
A Meta-Analysis of Adventure Therapy Outcomes and Moderators**

Coding Manual adapted from Lipsey & Wilson (2001) and George (2011)

Study-Level Coding Manual

Bibliographic reference: Write a complete citation in APA form

- A. Study ID Number. Assign a unique identification number to each study. If a report presents two independent studies, i.e., two independent outcome studies with different participants, then add a decimal to the study ID number to distinguish each study within a report and code each independent study separately.
- B. Author(s) names.
- C. What is the publication year (four digits; 9999 if unknown)? If two separate reports are being used to code a single study, code the publication year of the more formally published report.

Year:

01 1960-1969	04 1990-1999	
02 1970-1979	05 2000-2009	
03 1980-1989	06 2010-2012	99 Cannot Determine

- D. What type of publication is the report? If two separate reports are being used to code a single study, code the type of the more formally published report (i.e., book or journal article).
 - 01 Journal article, technical report, or book chapter
 - 02 Thesis/dissertation or conference paper

Sample Descriptors

- E. Mean age of participants by category. Specify the approximate or exact mean age at the beginning of the intervention. Code the best information available; estimate mean age from grade levels if necessary. If mean age cannot be determined enter "99.99."

Mean Age Overall: Mean Age Treatment: Mean Age Control:

01 ≤9 years old	04 18+ years old (adults)
02 10-14 years old (early adolescents)	05 Mixed (e.g., families)
03 15-17 years old (late adolescents)	99 Cannot Determine

Estimates of age by grade level to calculate the mean age of participants:

- 6th grade = Mean age of 11.5 years old
- 7th grade = Mean age of 12.5 years old
- 8th grade = Mean age of 13.5 years old
- 9th grade = Mean age of 14.5 years old
- 10th grade = Mean age of 15.5 years old
- 11th grade = Mean age of 16.5 years old
- 12th grade = Mean age of 17.5 years old
- College freshman = Mean age of 18.5 years old

- F. Sample size (Total number of subjects included in both Tx/Control Groups).

Total Sample Size: N =	01 ≤ 50
Tx Sample Size: N =	02 51-100
Control Sample Size: N =	03 101-150
	04 151 +

- G. Predominant sex of sample. Select the code that best describes the proportion of males in the sample.
 Males: N = 01 less than 50% male
 Females: N = 02 between 50% and 100% male
 99 cannot determine

- H. Sample country
 01 Australia 03 Other (specify):
 02 USA 99 Cannot Determine

- I. Predominant race. Select the code that best describes the racial makeup of the sample.
 01 greater than 60% White
 02 greater than 60% minority
 03 mixed, none more than 60%
 99 cannot determine

- J. Identified population.
 01 At-risk population, no clinical diagnoses, non-delinquent
 02 Clinical (non-delinquent, clinical concerns/diagnoses)
 03 Adjudicated population

- K. Identified issue
- | | |
|--|---|
| 01 Substance abuse | 09 Physically challenged (e.g., brain injury, epilepsy, asthma, deaf, weight-loss, chronic illness, etc.) |
| 02 Mental health | 10 Adjudicated youth |
| 03 Behaviour disordered | 11 Couples |
| 04 Emotionally disturbed | 12 Families |
| 05 Abuse victims (physical, emotional or sexual) | 13 Mixed |
| 06 Sexual perpetrators | 14 Welfare |
| 07 Educationally disengaged | 99 Cannot Determine |
| 08 Disabilities | |

Program Descriptors

- L. Type of Program. Was the treatment condition/program characterized as a private placement or as public placement?
 a) Code for private placement if funding for treatment comes from a non-government source.
 b) Code for public placement if treatment program appears to be funded by the government or state, which will include public school programs.
 01 Private
 02 Public

- M. Use of Adventure and Activity.
 01 Primary (first in importance and direct and immediate in its utilisation)
 02 Adjunctive (an additional component of treatment used in conjunction with more traditional models)
 03 Tangential (indirectly related to treatment)

- N. Type of Program Delivery.
 01 Continuous (delivered over a continuous period of time)
 02 Intermittent (delivered intermittently e.g., weekends)

- O. Participant Inclusion/Group Structure? (Group Membership- heterogeneous (open group), homogenous (closed) groups.
 a) Closed Group- leaders and clients begin and end the therapy group at the same time ([Russell, 2007] referred to these as contained expedition programs)
 b) Open Group- leaders and clients rotate in and out of the field, with new enrollees joining experienced participants in on-going groups ([Russell, 2007] referred to these as continuous-flow expedition programs)
 01 Closed Group
 02 Open-Group

- P. Type of Placement. Was the treatment condition/program characterized as a private placement or as an adjudicated placement?
- Code for private placement if participants in the program/treatment were placed there by parents or custodial authorities to intervene, diagnose, assess, and begin treatment for emotional, behavioural, or substance abuse problems exhibited by at-risk adolescents (Russell & Hendee, 2000).
 - Code for adjudicated program if participants were placed in the program by judicial authorities in order to intervene, diagnose, assess, and begin treatment for emotional, behavioural, or substance abuse problems exhibited by at-risk adolescents (Russell & Hendee, 2000).
 - If this information is unavailable code “unspecified.”

01 Private placement program (e.g., Community Mental Health, School-based, Paid for by parent)
 02 Adjudicated program (e.g., Correctional programs, run through juvenile corrections, typically paid for by the state)
 99 unspecified

- Q. Type of program. The type of program will be based on one of the four types present by Russell (2003). The four types of programs include:

- Contained expedition (CE) - where participants and the treatment team remain on a wilderness expedition for the majority (over 90% of total treatment) of the therapeutic process.
- Continuous-flow expedition (CFE) - where participants remain in wilderness or outdoor environments for the majority (over 90% of total treatment) of the program and leaders and clients rotate in and out of the field, with new enrollees joining experienced participants in on-going groups
- Base-camp expedition (BE) - programs have a structured base camp in a natural environment and take expedition outings from the base
- Residential expedition (RE) - programs are usually longer, and include emotional growth schools, residential treatment centres, and other therapeutic designations, where wilderness expeditions are used as a tool to augment other treatment services. (Russell, Gillis, & Lewis, 2008, p. 57; Russell, 2003).

For the types of OBH programs code according to the following:

01 Contained expedition
 02 Continuous-flow expedition
 03 Base-camp expedition
 04 Residential expedition
 05 Mixed (combo of these types)
 99 unspecified, unidentifiable, none of the above

- R. Model. Russell (2003; 2007) and Russell, Gillis, and Lewis (2008) defined 7 different models of programs. The following models are defined according to the Russell, Gillis, and Lewis (2008) study.

01 Base Camp - outdoor base camp supplemented by wilderness expeditions
 02 Expedition - program is conducted primarily in wilderness on expeditions
 03 Residential - residential treatment supplemented by wilderness expeditions
 04 Outpatient - outpatient treatment supplemented by wilderness expeditions
 05 School - therapeutic school supplemented by wilderness expeditions
 06 Integrated expedition - short expeditions (4-6 days), then return to residential (2-3 days)
 07 Multiple
 08 Ropes Course/Challenge Course based (included Adventure Based Therapy)

- S. Daily Duration.

- Residential - participants were together for the entire duration of the program (between pre and post assessment) are considered pure residential.
- Mixed - program included a combination of daily meetings mixed with overnights (where for some portion of time subjects returned home), this would be considered a “mixed” program.
- Outpatient - program only provided daily meetings and participants never stayed overnight (Based on Hans, 2000).

01 Residential
 02 Mixed
 03 Outpatient
 99 unspecified

- T. Length. The overall program duration will be coded based on the number of days between pre-test and post-test.

Length:

01 1-2 days	04 15-21 days	07 81-150 days
02 3- 7 days	05 22-45 days	08 151+ days
03 8-14 days	06 46-80 days	99 unavailable

U. Outcomes Reported

Note: For data columns include all necessary data to calculate effect sizes (e.g., *N*, *M*, *SD*, *t*, *F*, etc.)

Outcome Category	Measure	Pre-Data	Post-Data	Follow-Up Data
01 Self-Concept				
02 Clinical scales (i.e., locus of control, personality, depression, anxiety)				
03 Behavioural (i.e., recidivism, classroom or home behaviours)				
04 Academic measures (i.e., grades, teacher reports specifically assessing academic performance)				
05 Family (i.e., parent report, relationships within family)				
06 Social Development (i.e., social skills, adaptive functioning, group cohesion)				
07 Physical (e.g., weight, BMI, blood)				
08 Spirituality/ Religiosity/ Morality				

Items	Points Assigned	Points Awarded
1. Study Design	1 = Single group (pre/post)	
	2 = Quasi-experimental (w/control)	
	3 = Randomisation with control group	
2. Considered Replicable	0 = Intervention/follow-up descriptions insufficiently detailed	
	1 = Procedures contain sufficient detail	
3. Baseline Data	0 = No baseline scores, client characteristics or measures reported	
	1 = Baseline scores, client characteristics or measures reported	
4. Quality Control	0 = No intervention standardisation specified	
	1 = Intervention standardisation by manual, procedures, specific training, etc	
5. Follow-up length	0 = < 6 months	
	1 = 6-11 months	
	2 = ≥12 months	
6. Follow-up rate	0 = < 70% completion	
	1 = 70-84% completion	
	2 = >85% completion	
7. Collaterals interviewed	0 = No collateral verification of participant self-report	
	1 = Collateral interviewed in >50% of cases	
8. Objective Verification	0 = No objective verification of participant self-report	
	1 = Verification of records (paper records, materials, etc)	
9. Dropouts discussed:	0 = No discussion or enumeration of dropouts or dropouts excluded from analysis	
	1 = Intervention dropouts enumerated	
10. Independent :	0 = Follow-up conducted non-blind or by an unspecified method	
	1 = Follow-up by person blind to participants' treatment condition	
11. Analysis:	0 = No statistical analysis conducted or clearly inappropriate analyses	
	1 = Appropriate statistical analyses (group differences, characteristic comparable)	
12. Multisite:	0 = Single site study or comparison of sites offering different treatments	
	1 = Parallel replications at two or more sites with separate research teams	
Total	16	

Note: Ratings closer to 0 indicating poor methodological qualities and ratings closer to 16 indicating stronger or better research methodology.

For further explanation of the MQRS, see:

Littell, J. H., Corcoran, J., & Pillai, V. K. (2008). *Systematic reviews and meta-analysis*. New York: Oxford University Press.

Miller, W. R., Brown, J. M., Simpson, T. L., Handmaker, N. S., Bien, T. H., Luckie, L. F., . . . Tonigan, J. S. (1995). What works? A methodological analysis of the alcohol treatment outcome literature. In R. K. Hester & W. R. Miller (Eds.), *Handbook of alcoholism treatment approaches: Effective alternatives* (pp. 12-44). Needham Heights, MA: Allyn & Bacon.

Miller, W. R., & Wilbourne, P. L. (2002). Mesa Grande: A methodological analysis of clinical trials of treatments for alcohol use disorders. *Addiction*, 97(3), 265-277. doi: 10.1046/j.1360-0443.2002.00019.x

Vaughn, M. G., & Howard, M. O. (2004). Integrated psychosocial and opioid-antagonist treatment for alcohol dependence: A systematic review of controlled evaluations. *Social Work Research*, 28(1), 41-53. doi: 10.1093/swr/28.1.41

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- Hans, T. A. (2000). A meta-analysis of the effects of adventure programming on locus of control. *Journal of Contemporary Psychotherapy*, 30(1), 33-60.
- Lipsey, M. W., & Wilson, D. B. (2001). *Practical meta-analysis*. Thousand Oaks, CA: Sage.
- Russell, K. C. (2003). A nation-wide survey of outdoor behavioral healthcare programs for adolescents with problem behaviors. *Journal of Experiential Education*, 25(3), 322-331.
- Russell, K. (2007). Summary of research from 1999-2006 and update to 2000 survey of Outdoor Behavioral Healthcare programs in North America: Technical Report.
- Russell, K., Gillis, H. L., & Lewis, T. G. (2008). A five-year follow-up of a survey of North American Outdoor Behavioral Healthcare programs. *Journal of Experiential Education*, 31(1), 55-77.
- Russell, K. C., & Hendee, J. C. (2000). Outdoor Behavioral Healthcare: Definitions, common practice, expected outcomes, and a nationwide survey of programs. Moscow, ID: Wilderness Research Center.