

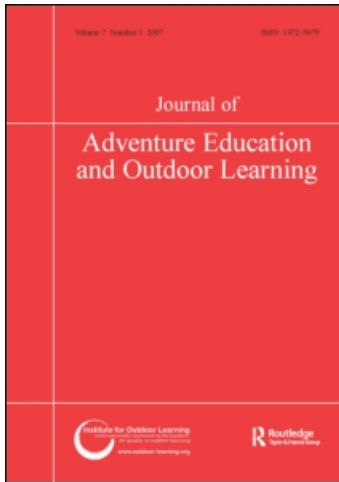
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Publisher Routledge

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Journal of Adventure Education & Outdoor Learning

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title-content=t777550184>

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Online Publication Date: 01 June 2009

To cite this Article Harper, Nevin J.(2009)'The relationship of therapeutic alliance to outcome in wilderness treatment',Journal of Adventure Education & Outdoor Learning,9:1,45 — 59

To link to this Article: DOI: 10.1080/14729670802460866

URL: <http://dx.doi.org/10.1080/14729670802460866>

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The relationship of therapeutic alliance to outcome in wilderness treatment

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The author examined therapeutic alliance in relation to a standardized measure of social and psychological outcomes for adolescents with behavioural, emotional and substance use diagnoses in a wilderness treatment programme. Client self-ratings of treatment outcome and therapeutic alliance were found to improve significantly. However, early alliance scores and change from early- to post-treatment alliance scores were not predictive of treatment outcomes as suggested in treatment literature. Questions concerning wilderness leader/therapist roles, wilderness effect and involuntary treatment related to alliance are raised. Methodological difficulties in completing this line of research are shared and implications for practice are discussed.

Introduction

Positive social and psychological change has been found in wilderness treatment programmes for adolescents with behavioural, emotional and substance use diagnoses (Harper, Russell, Cooley, & Cupples, 2007; Russell, 2003). These outcomes have, however, primarily focused on clinical adolescent outcomes and not delineated mechanisms of change, subsequently leaving process variables untested and unexplored as causal or facilitative facets of treatment outcomes (Kazdin & Nock, 2003). While numerous and potentially mediating variables exist within the wilderness treatment milieu, few have received little more than occasional, and often anecdotal, evidence. One variable commanding considerable attention in treatment literature, while relatively under-examined in adolescent populations, is the therapeutic—or working—*alliance* (Bickman et al., 2004; Catty, 2004).

The alliance is the combined strength and quality of relationship between client and therapist. It is conceptually derived from three constructs: (a) goal—the agreement between client and therapist on what change needs to occur, (b) task—the agreement between client and therapist on how to achieve change, and (c) bond—the

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quality of client–therapist attachment (Bordin, 1979; Horvath, 2001). The alliance is portrayed as the most consistent in-treatment predictor of outcomes and possessing significant explanatory power in treatment research across numerous psychotherapeutic approaches and client populations (Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000). Extensive reviews and meta-analysis of alliance research with adolescent and adult psychotherapy populations support these assumptions and report the alliance as maintaining a small to medium effect size ($d = .22$) consistently across client, therapist, modality and other programme-level variables (Martin et al., 2000; Shirk & Karver, 2003). While including standard cautions for interpretation, these authors and others have presented empirical evidence of alliance as a change process variable strongly associated with therapeutic outcomes and showing greater constancy in predicting outcome than any other researched facet of treatment.

Although the alliance's predictive quality and stated importance in treatment success has been recognized, the alliance has been generally attributable to only 7% of the variance in outcomes (Wampold, 2001). With the largest sources of variance in adolescent treatment unexplained, and 40–60% of adolescents choosing to discontinue treatment prematurely, the importance of developing strong, and more critically, early alliance, is paramount (Duncan, Miller, & Sparks, 2007). This is especially salient for wilderness treatment programmes in the USA where completion rates have been as high as 93% (Russell & Harper, 2006).

Thus, while alliance is reported as an integral element in change processes across numerous psychotherapeutic practices and a reliable predictor of treatment outcome, this claim has not yet been verified in the wilderness treatment environment. Accordingly, in order to better serve clients, it will be equally important to understand how alliances form, relative to client and programme variables. This paper presents findings from an examination of the client–therapist therapeutic alliance as it relates to specific social and psychological outcomes in an adolescent wilderness treatment programme. Three primary objectives of this study were to (a) examine change in client–therapist alliance scores during adolescent wilderness treatment, (b) explore predictive qualities of alliance relative to a standardized treatment outcome measure, and (c) provide recommendations for practice and further research.

Adolescent wilderness treatment

Meta-analysis of 96 outcome studies in outdoor adventure programming outlined the strength and lasting effects these programmes can have on participants (Hattie, Marsh, Neill, & Richards, 1997). While this review is highly cited in adventure and wilderness therapy literature, many studies included in the review were not defined as therapeutic. However, the authors did indicate that all studies analysed were reporting intentional programme efforts to create participant-level emotional/behavioural change (i.e. educational or developmental/therapeutic). The review suggested that adventure programmes have shown reasonably consistent outcomes in improving participants' (a) independence, (b) confidence, (c) self-efficacy, (d) self-understanding, (e) assertiveness, (f) internal locus of control, and (g) decision-making skills (Hattie et al., 1997).

Further, the review suggests that programme quality in design and practice is of the utmost importance in facilitating positive outcomes; many in outdoor adventure education fail to recognize this in literature, perpetuating the universalist belief that all outdoor programming contributes to the aforementioned positive results (Brookes, 2004).

Subsequent reviews and analysis of wilderness and adventure programming research has supported the premise that more pronounced change occurs in (a) therapeutic programmes over educational and prevention programmes, (b) more physically demanding wilderness programmes, and (c) while length of programming remains a debatable facet related to outcomes, literature is suggesting 'longer is better' (Cason & Gillis, 1994; Hans, 2000; Russell, 2003; Wilson & Lipsey, 2000). The continued reporting of outcomes from differing treatment and educational models is problematic to further development of theoretical approaches and practice (e.g. wilderness programming vs. wilderness therapy). Jones, Lowe, & Risler (2004) for example, reported no significant difference in recidivism rates between juvenile delinquent adolescents participating in wilderness programmes vs. group home programme interventions although the study failed to identify types of *treatment* utilized during interventions. This lack of theoretical distinction adds nothing to the collective understanding of wilderness treatment programmes, since the intervention may have been a wilderness *education* programme, and not *therapy*, as implied in the title of their paper and subsequent discussion of their results.

Treatment processes, specifically the alliance, have received limited attention in wilderness treatment research and literature. While the wilderness is suggested a 'powerful' milieu for alliance-building (Russell, 2005, 2006a) consideration is given to identifying what elements of adolescent wilderness treatment programmes may in fact be conducive in this regard. Wilderness treatment programme and process theory expressed by Russell (2006b) provides some insight into possible alliance-enhancing programme elements. The author and others have suggested that the wilderness environment presents the clinical team with opportunities to build alliances more effectively than conventional clinical settings. Russell (2006b) found qualitatively that staff utilize a number of factors that are reasoned to be alliance-promoting: (a) time and patience, which reduces the need to (b) force issues, which (c) restructures the client-leader relationship, and supports increased (d) nurturing and empathy shown by the wilderness therapists and leaders. Additionally, clients and the clinical team live and travel together, often under difficult circumstances, and are both clearly responsible for consequences of their own actions; natural consequences are clearly demonstrative of personal responsibility in the wilderness treatment environment (Russell, 2003, 2006b). Clients packing their rain gear in the bottom of their pack, against the suggestion from programme staff to keep it readily accessible, for example, may suffer the natural consequence of getting wet. While the staff member may revisit the lesson learned, it is the environment that reinforces the client's action and subsequent consequence. Although resentment and anger may still be cast toward the staff, clients have time to reflect on their lack of individual responsibility and may consider that the staff member was, in fact, offering a helpful

suggestion. Further, the wilderness environment offers clients and the clinical team abundant opportunities for introspection and discussion free from modern day-to-day distractions. In this regard, it has been suggested that the natural environment has attention-restoring and stress-reducing properties that may also enhance opportunities to foster client–therapist alliance (Kaplan, 1995; Kuo & Faber Taylor, 2004). The ecological paradigm, characteristic of wilderness treatment settings, requires considerable attention as the natural environment itself may play an important role in mediating alliance, and contributing to subsequent treatment outcomes (Beringer, 2004; Harper & Scott, 2006). Berger (2006) found that nature played a significant therapeutic role for special needs children in a school intervention programme for children with lower IQs—nature as milieu and co-therapist. A case study conducted with seven children aged 8 to 10 years showed that relationships had formed between the dynamics of the natural environment, the children and the facilitators. It appears that the shared reality of the ‘ever-changing environment that was not under their control’ elicited the most noteworthy impact on the intervention suggesting that that which is ‘uncontrollable and unexpected’, for both children and facilitators, may provide significant relationship-building opportunities (Berger, 2006, p. 141). This qualitative finding is supportive of previous anecdotal evidence of wilderness treatment environments professing heightened alliance-building capacity (Russell, 2006a).

A possible confounding client experience of wilderness exists. Clients may view, or programmes may portray, wilderness as scary, unfamiliar and uncomfortable. In turn, this may contribute to an increased dependence on programme staff, contributing to the development of ‘relationship’ with programme staff, therapeutic or otherwise. A second possible confounding issue related to client–leader alliance is the complication of a therapeutic relationship that occurs when a client is enrolled in treatment involuntarily. While arguably an ‘integral, often positive component for treatment of addictive disorders’, clients forced into wilderness treatment against their will raises numerous ethical, legal, philosophical and clinical issues (Sullivan et al., 2008, p. 36). There is general agreement within treatment fields that a clinical relationship can be established if client and therapist can agree on the circumstances under which treatment will occur—when the client accepts their placement and need for treatment; this may be the case for adolescents showing positive outcomes in wilderness therapy.

Only two studies were identified assessing therapeutic alliance in wilderness treatment settings. The first study assessed alliances between counsellors/teachers ($n = 45$) and children ($n = 178$) in a partial hospital/day school and a short-term residential wilderness camp utilized to stabilize children in a secure setting (Bickman et al., 2004). Two of the authors developed the Therapeutic Alliance Scale (TAS) employed in the study. Children in this study presented with extreme behavioural problems, were 80% male and averaged 14 years of age. While not clearly distinguishing between the two settings in the study, results showed that child and counsellor reports of alliance varied with age; younger participants reported alliance scores lower than their counsellors/teachers, while older participants reported higher

alliance scores than their counsellors/teachers, although 17 year olds showed no discrepancy. A second interesting finding was that counsellors/teachers did not rate their alliances consistently across children, suggesting that unique interpersonal relationship factors were present and that there is a need to further understand leadership characteristics most conducive to alliance building.

In the second study, Russell (2006a) evaluated clients in five wilderness treatment programmes ($N = 650$) utilizing the Group Therapeutic Alliance Scale (GTAS, Marziali, Munroe-Blum, & McCleary, 1997) to examine the strength of attachment each client has for its therapeutic group and for their therapist/leader. The GTAS was administered mid-treatment (i.e. about 25 days) and again at post-treatment. Results suggested relatively high alliance scores at mid-treatment, significant increases between mid-treatment and post-treatment and a possible ceiling effect described in alliance research (Horvath, 2001) as the initial measure may have been administered too late to detect early stages of alliance development. Overall, clients perceived their relationship to the leader as the most important contribution to their treatment process and their relationship and cohesion to other group members as least important in their treatment process. This study mirrors the depiction of group cohesion in literature in that it does not necessarily correlate with client–therapist or group alliances; the relationship between group members, and between members and therapists, has been indicated as a contributing, although possibly distinct, element in therapeutic group process (Johnson, Burlingame, Olsen, Davis, & Gleave, 2005; Lorentzen, Sexton, & Hogland, 2004; Shechtman & Gluk, 2005). As the majority of alliance literature is from community and institutional treatment settings, its relationship to wilderness treatment is questionable. It is, however, an anchor point for future alliance research in wilderness treatment environments which have been suggested to enhance supportive group process, group cohesion, and potentially, treatment outcomes (Harper & Scott, 2006; Russell, 2003).

While practitioners and academics of adventure and wilderness treatment fields move toward development of best practices and an evidence-based research agenda (Gass, 2005, 2006), the need for a theoretically driven research agenda to build coherent understanding of how processes lead to ‘evidence’ should parallel these efforts (Baldwin, Persing, & Magnuson, 2004; Harper, in press). This is most evident within a treatment field built on diverse philosophical, theoretical and practical approaches, much borrowed from related treatment professions (e.g. social work, counselling, outdoor education). With this in mind, it is the intention of this study to explore the alliance as a key process variable, as described in literature, in adolescent wilderness treatment, and to articulate its relationship to desired treatment outcomes.

Methods

Participants and procedure

Data were collected from adolescent clients ($N = 85$) enrolled across 10 cohort groups at one wilderness treatment programme in the western USA between the

summer and fall of 2006. The programme utilized in this study is recognized in the USA as an outdoor behavioural healthcare programme (OBH) (Russell, 2003). Clinical criteria for OBH wilderness treatment programmes include (a) state licensure, (b) national accreditation, (c) clinical supervision, (d) use of individual treatment plans, and (e) use of aftercare plans (Russell, 2006b; Russell & Harper, 2006); similar criterion necessary for treatment and rehabilitation facilities. Participants were predominantly Caucasian, ranged in age from 13–18 years with a mean of 15.76 years ($SD = 1.14$), and 53 (62%) were male. Diagnoses included substance use only (14%), internalizing and externalizing mental health and behavioural disorders only (46%) and dual-diagnosed as having substance use and mental health/behavioural disorders (40%). Treatment length averaged 38.29 days ($SD = 15.77$). Daily routines included backpacking and outdoor living in desert and forest settings.

Upon admission to the wilderness treatment programme, consent to participate in the study was attained from clients and their parent/guardian. Of the 85 participants, 60 participants completed at least one measure although only 31 participants completed all four measures, resulting in a 36% response rate. Non-response biases were checked and no significant differences were found on client-level variables between responders and non-responders, nor between pre-treatment only and post-treatment only responders suggesting complete data sets may cautiously represent the larger sample of 85.

Treatment condition

Adolescent clients enter treatment through either being brought to the programme by contracted escort personnel, or when possible, by the parents themselves. Russell (2007) identified that approximately 40% of adolescents enter OBH programmes willingly. The rest enter under coercion or are escorted by legal authorities, or a private escort service when from states not requiring medical or legal justification for involuntary treatment (Harper & Russell, 2008; Sullivan et al., 2008). Parents, while often conflicted by the decision, recognize that this significant action of sending their child to treatment is taken in response to family crisis related to the adolescent's self-destructive behaviours; a belief supported by programme therapists (Harper, 2007). While data were not collected to identify voluntary vs. involuntary clients in the present study, the coercive nature of *involuntary* treatment and its relationship to alliance is worthy of future investigation.

Intact treatment groups generally include seven clients and a *clinical team* of three consisting of wilderness guides and at least one Master's-level therapist. Clinical field teams are guided by a supervising therapist and clinical director via satellite phone communication, and supported by logistical, medical and administrative staff of the programme. Theoretical orientation of clinical practice is varied by a range of staff training (e.g. counsellors, marriage and family therapists, psychologists) and client needs. While clinical practice and daily routines are driven by curricula and treatment plans, a number of theoretical orientations were identified in programme literature and by programme therapists as conducive to individual and group therapy

in the wilderness: structural family, family systems, humanistic, narrative, cognitive behavioural and existential psychotherapy (Harper, 2007). The use of experiential initiatives, metaphor, story, ritual and rites of passage are also commonly employed in the wilderness treatment milieu. Additionally, the extended and intensive time spent in the 'field' by clients and the clinical team allows for a highly integrated and holistic approach to the treatment process; improvement to clients' daily nutritional intake, increased physical activity, completion of school curriculum, social and life skill development and other aspects comprise the wilderness treatment experience, suggesting difficulty in clearly defining an overarching theoretical approach to treatment.

Adolescent clients participate in individual and group therapy processes while developing wilderness and self-care skills to meet the rigours of challenging outdoor travel and living. A 3-week curriculum guides clients from dependence on guides and the group toward self-reliance on a physical and emotional level while in the wilderness. Treatment begins with a full-day multi-family meeting in which each family articulates issues and their resolve for change. Adolescents are then transported to a remote wilderness location to begin the 'trek'. Week 1 of the trek is designed to build group cohesion and safety as a baseline for therapeutic group work (i.e. group norms, individual expectations, and personal boundaries). Week 2 includes a greater intensity of individual and group psychotherapy, and the expectation of clients to increase the depth of their own change process. Week 3 of the trek includes a 3-day solo period for reflection, introspection and staff-client one-on-one time to plan post-trek transitions and assisting with individual issues and needs. The third week ends with a second all-day multi-family meeting that provides a platform for adolescents to express their experiences and desire for change and for parents to share their post-treatment expectations and hopes for the family. At this point, clients may be recommended to stay for an additional 4-week treatment component, although not generally as field-intensive as the 3-week wilderness trek. At the end of 3 or 7 weeks clients may transition into another residential treatment programme, boarding school or return to their home communities—a decision based on client needs.

Process measure

The *Working Alliance Inventory* (WAI) was administered early in treatment and post-treatment to assess change in scores of client-leader/therapist alliance. Study participants were allowed to choose one member of the clinical team (i.e. therapist or wilderness leader) to complete both WAI measures. The clinical team approach, utilized by the wilderness treatment programme, shares responsibilities for guiding, safety and therapeutic intervention, thereby reducing the perception of *therapist* in the field. A delayed initial administration of the WAI was utilized as suggested by its author (Horvath, 2001). As adolescent clients are often enrolled in wilderness treatment begrudgingly or against their will, anger and resentment toward their parents and staff at admission was present and reasoned to negatively influence an accurate portrayal of the *therapeutic* relationship forming between client and therapist. Therefore, the first *early-treatment* WAI was administered within 5 days of admission and at a

Goal

- 6. ___ and I are working towards mutually agreed upon goals
- 11. ___ and I have established a good understanding of the kind of changes that would be good for me.

Task

- 8. ___ and I agree on what is important for me to work on.
- 12. I believe the way we are working with my problem is correct.

Bond

- 5. ___ and I respect each other.
- 9. I feel ___ cares about me even when I do things that he/she does not approve of.

Figure 1. Constructs and example items of the working alliance inventory (adapted from Horvath, 2001)

time when the clinical team observed a minimum level of client motivation to engage in the programme.

The WAI is a 12-item self-report instrument providing a measure of the quality of alliance between therapist and client. The instrument has adequate reliability (α s of .89 for Goals scale, .92 for Task scale, and .93 for the Bond scale) and is highly related to other measures of therapeutic alliance (Cecero, Fenton, Frankforter, Nich, & Carroll, 2001).

The WAI takes approximately 5–10 minutes to complete and consists of three subscales: goal, task and bond are displayed in Figure 1 with example items from each construct. Three minor modifications were made to the WAI in this study: (a) removal of the word therapist to accommodate assessment of any clinical team member, (b) Likert scale reduction from 7 to 5 possible responses to encourage stronger responses within a small sample, and (c) two reverse-scored items were reframed in the positive to maintain strengths-based language across items. Modifications were made with recognition of the reduced psychometric validity of the instrument. A maximum of 60 points were possible with the 12 items scored on a 5-point Likert scale with responses as follows: 1—seldom, 2—sometimes, 3—fairly often, 4—very often, and 5—always.

Outcome measure

The *Youth Outcome Questionnaire (Y-OQ) 30SR* was administered at pre-treatment and post-treatment to assess change in psychological symptoms and social functioning in adolescents during WT (Dunn, Burlingame, Walbridge, Smith, & Crum, 2005). Y-OQ scores represent an overall level of behavioural and emotional distress a young person is experiencing at that time in their life. The Y-OQ is a 30-item self-report instrument, takes approximately 10–15 minutes to complete, and is considered to be a valid and reliable instrument (α s ranging from .74 to .93 on subscales with a total scale α of .96) to assess adolescent outcomes and effective in repeated-measure studies (Burlingame, Lambert, Reisinger, Neff, & Mosier, 1995). A total cut-off score established by the authors at 29 allows for clinical or non-clinical designation—scores above

29 are in the clinical range, scores 29 and below are not. Additionally, a *reasonable change index* (RCI) of 10 would determine clinically significant change.

Results

Working Alliance–Youth Outcome Questionnaire relationships

Possible client WAI scores of 12–60 (increase in score indicates improvement), moved from a mean early-treatment score of 44.81 (SD = 8.40) to a mean post-treatment score of 49.23 (SD = 7.79). This 4.42 mean score difference was found significant by a paired sample *t*-test ($t(31) = 2.99, p < .01$).

Possible client Y-OQ scores of 120–0 (reduction in score indicates improvement) moved from a mean pre-treatment score of 34.84 (SD = 19.63) to a mean post-treatment score of 29.35 (SD = 16.58). This 5.5 mean score difference was found to be *statistically* significant by a paired sample *t*-test ($t(31) = 2.10, p < .05$). Although trending close to the non-clinical cut-off mean score of 29, this result is not *clinically* significant change according to the author's RCI of 10. Mean score improvements for both the WAI and Y-OQ demonstrated small to medium effect sizes of $d = .40$ and $d = .30$, respectively (measure of observed effects suggested by Cohen, 1988).

Bivariate linear regression analyses were conducted to examine the prediction of Y-OQ treatment outcomes from the strength of the WAI alliance scores. Results showed a non-significant relationship between WAI and Y-OQ, $R^2 = .011$ ($F(1,31) = .241, p = .63$). Adjustments were made to utilize all sample data and subsequently increase statistical strength through maximum likelihood data imputation in SPSS (SPSS version 12, 2004; Tabachnick & Fidell, 2001). The regression was repeated with replacement values of missing data and resulted in similar outcomes showing the difference in client early-treatment to post-treatment alliance scores as non-predictive of desired treatment outcomes as measured by the Y-OQ. Literature suggests early alliance scores have additionally been predictive of treatment outcomes (Hogue, Dauber, Stambaugh, Cecero, & Liddle, 2006). A bivariate linear regression was run to test this hypothesis. In this study, early-treatment alliance scores showed a non-significant relationship to treatment outcome as measured by the Y-OQ, $R^2 = .048, (F(1,31) = 1.48, p = .23)$.

Construct analysis

Despite sample attrition and the alliance's non-predictive relationship to treatment outcome, significant results warranted further exploration to better understand alliance results relative to the three sub-scales of the WAI. Paired sample *t*-tests of early-treatment to post-treatment alliance scores by construct found statistically significant Goal and Task score differences ($t(31) = 1.48, p < .05$) and ($t(31) = 1.69, p < .05$). The Bond construct score differences showed near-significant results ($t(31) = .97, p = .052$). To test the theoretical challenges of the working alliance as a three-factor scale, linear relationships were assessed between the results of goal, task and bond alliance scores. Correlation coefficients for the three alliance constructs were

assessed utilizing total construct scores for the sample ($n = 31$) and corrected using the Bonferroni approach to reduce Type I error potential across the three correlations (i.e. α was set at $p < .02$ for significance). All three correlations were found to be significant. Correlations were medium to large as evidenced by effect size ($r = .43$ to $r = .68$) and provide indication of a linear relationship among the three constructs.

Limitations

Results presented refer only to the wilderness treatment programme utilized in this study, and should not be generalized until tempered by further investigations of alliance in adolescent wilderness treatment. Limitations of the study are implicit in its small convenience sample, instrument modification and lack of randomization or use of control/comparison group. Findings are suggested as a starting point for discussion and research among wilderness treatment practitioners and academics regarding alliance as a causal or mediating link to desired treatment outcomes (Kazdin & Nock, 2003). While demonstrating significant increases in alliance scores during wilderness treatment, this result, although studied as a process variable (i.e. facilitative of therapeutic outcome), may also be viewed as an outcome variable (i.e. therapeutic itself) in treatment settings, thereby further complicating interpretation of results.

The reliability of standardized psychometric measures in wilderness treatment may also be in question. When designed for community or residential treatment settings, the wilderness treatment milieu may present yet unarticulated extant limitations to the measures such as the YOQ and WAI. Last, predictive relationships between alliance and youth outcomes may have been found through analysis of client demographics, cohorts, treatment length and a host of other variables, as well as by items of the YOQ 30SR (although not designed for subscale analysis while the longer YOQ is). To address these limitations, future studies will require larger samples for statistical analysis and repetition to better evaluate the reliability of these measures in this treatment milieu. Qualitative or mixed-methods approaches will bring greater insight into the nature of alliance formation in wilderness treatment.

Discussion

The aim of this study was to examine the alliance and its relationship to outcomes in adolescent wilderness treatment. Alliance scores, while significant, were not predictive of adolescent outcomes. The present study does, however, raise questions and provides a platform for discussion of practice and future research considering how alliance in adolescent wilderness treatment may relate to: (a) the therapist/leader, (b) the wilderness effect, and (c) involuntary treatment.

Alliance and the therapist/leader

In many wilderness treatment programmes, therapists visit clients in the field for pre-determined lengths of time, leaving clients with non-therapists (i.e. wilderness

guides/leaders) for the majority of their time in treatment. Literature has suggested that these *paraprofessional* staff, under the guidance of a supervising therapist and following an individual client treatment plan, may facilitate stronger outcomes than the client working with the therapist alone (Weisz, Weiss, Han, Granger, & Morton, 1995). While approaches vary in practice, it is suggested here that paraprofessional field staff—and therapists who remain in the field—may have greater opportunity to develop alliances than programmes utilising ‘visiting’ therapists due to the intensive and interdependent nature of their experiences in the wilderness.

The present study did not provide a distinction between client reports of therapist vs. leader alliance scores. Research distinguishing roles has been suggested by Holmqvist, Hill, and Lang (2007) as the alliance should be viewed not as a ‘uniform phenomena’ rather as types of relationship developed in context (p. 177)—an argument originally voiced by Bordin (1979) who brought early attention to the alliance in treatment literature. Further investigation is necessary to answer a number of key questions: Do clinical responsibilities of therapists influence ratings of alliance relative to the wilderness leader’s role in providing safety and skills training in the field? Do therapist/leader personality types effect alliance relative to particular client characteristics? In addition, what skills do therapists/leaders need to enhance their alliance building capacity to move clients toward their treatment goals?

Alliance and the wilderness effect

The ecological paradigm that informs wilderness treatment settings requires considerable attention as the natural environment itself may play an important role in mediating alliance, and contribute to subsequent treatment outcomes (Beringer, 2004; Harper & Scott, 2006). Considering terms currently used in related literature—wilderness treatment, wilderness therapy, outdoor behavioural healthcare—images are evoked of the influence and role that nature may have on clients in these treatment environments.

Berger (2006) designed and delivered a nature-based therapeutic approach in working with special needs children as an attempt to restructure the client–therapist relationship of talk therapy. With the goal of exploring nature as co-therapist, he found that opportunities increased for working in ‘non-verbal’ and ‘experiential’ ways. This case study demonstrated the dynamic and diverse potential for therapeutic group work and individual growth in natural settings. Berger’s study highlights, especially relevant for his low-IQ clients, the shift from insight-oriented and abstract language of psychotherapy, to the physical and ecological effect that nature has on humans. The role nature plays in human development has been explored through evolutionary, spiritual, anthropological, psychological and socio-cultural perspectives among others, and has been summarized as a critical component of our physical, emotional and intellectual well-being (Kahn & Kellert, 2002; Kellert, 2002). A theme, long-held in contemporary and classic literature, is that nature has a profound and inherently healing affect on humans. If this is the case, the role of nature, and the activities conducted within it, is poorly understood in adolescent treatment. How

nature may contribute to the formation of therapeutic alliances and subsequent outcomes requires further investigation.

Alliance and involuntary treatment

Involuntary enrolment occurs for approximately 60% of adolescents entering OBH wilderness treatment programmes in the USA (Russell, 2006b). Interpreting treatment outcomes under these conditions becomes contentious when client recognition of the need for compliance to demonstrate progress toward completion of ‘treatment’ may determine their choice of words and behaviours. Authenticity and complicity are in question when issues of informed consent, deception and ‘captive’ or coerced populations are considered (Hunt, 1994). Wilderness treatment programmes are currently under significant scrutiny in the USA and many are trying hard to isolate themselves from unlicensed, unregulated, and often *tough love* or *boot camp* programme models (Kutz & O’Connell, 2007; Szalavitz, 2006). It is in the ethos and practice of the programmes that differences exist. Szalavitz (2006) outlined a lineage of unethical programme models and practices including wilderness treatment programmes that utilize forms of deprivation and harsh tactics; cruel and unusual punishment for ‘troubled-teens’. When elements of coercion and deception are engaged to get clients into treatment, clients’ ratings of alliance may or may not reflect the establishment of a therapeutic relationship, rather misleading demonstrations of ‘buy in’.

This study found significant improvement of alliance scores. The Goal and Task constructs analysed individually were significant, while the Bond construct was not. This may support the premise that clients were doing what was asked of them, while not establishing the attachment to the therapist/leader necessary for a meaningful therapeutic relationship. Further support for this premise may come from the fact that clients were, in the present study, allowed to choose any field staff—assuming one they got along with—to assess alliance.

Implications

Results of this study present several interesting implications and questions for practice and future research in adolescent wilderness treatment: (a) Significant alliance-building has been demonstrated and programmes should assess and advance their capacity to optimize these helping relationships in achieving desired treatment goals, (b) measures of alliance or helping relationships require detailed analysis by construct and relative to therapist/leader and client-specific characteristics, (c) based on differing roles and responsibilities, therapists and wilderness leader alliances should be assessed to identify where helping relationships may vary, and (d) research should explore alliance within a variety of programme models to identify key programme philosophies, treatment and educational objectives and activities that may enhance alliance development.

The formation of strong working alliances in practice is suggested in literature to utilize treatment processes more effectively (Horvath, 2001). The results of the

present study, although compromised by limitations, do not support the relationship between alliance and desired outcomes in adolescent wilderness treatment. Whether eventually shown to be a facilitative of therapeutic outcome or therapeutic itself (Catty, 2004), the strength and quality of relationship developed between adolescent clients and their therapist/leader in wilderness treatment may provide a basis for treatment success if it can be better understood how it forms, when, and for whom in this treatment setting. In conclusion, this exploratory study revealed that adolescent wilderness treatment programmes can build significant client–therapist/leader alliances, although how alliance is conceptually derived in this treatment modality may prove to be an intricate process to untangle and articulate as it involves the confluence of numerous human and environmental influences.

Author biography

Nevin Harper, PhD, is a Social Science and Humanities Research Council of Canada Post-Doctoral Research Fellow. His current research in the School of Child and Youth Care at the University of Victoria is exploring the utilization of nature in educational, developmental and therapeutic contexts.

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