IS LONG-TERM RESIDENTIAL TREATMENT EFFECTIVE FOR ADOLESCENTS? A TREATMENT OUTCOME STUDY

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Abstract:

There is a lack of research concerning the effectiveness of residential treatment for troubled adolescents. Due to a focus on internal controls in this area of research, there has been no conclusion as to how helpful such treatment is for real world clients. This is an effectiveness study that serves as a preliminary outcome evaluation for the Academy at Swift River, an emotional growth boarding school in Cummington, Massachusetts. Both the program graduates and their parents completed detailed questionnaires concerning the perceived behavior and attitude change of the patient. They were also given a standardized test by which the students could be compared to a national norm on the dimensions of clinical pathology and positive adaptation. Results found that the majority of pathological and adaptive behaviors were perceived to have improved by both the students and parents, but that the standardized measures of parent relations, self-reliance, conduct, and self-reported depression were still well within the clinical range. Despite these shortcomings, 100% of patients and their parents said that they would recommend treatment at ASR to others. Though much more research needs to be done in this field, this study lends support to the idea that residential treatment can be very effective for troubled adolescents.

The History of Residential Treatment Centers in America

Inpatient services, specifically intended for troubled adolescents, first began to appear in the United States in the 1920s (Kolko, 1992). Residential treatment centers are not simply facilities that offer basic residential care to dysfunctional populations, but rather a place of purposeful mental healing (Barker, 1988). The spread of such centers occurred based on the lack of outpatient services available at the time and the parental perception that they could not provide adequate assistance to their children who were in need of a trained specialist. Simultaneously, the ideas of the special needs student and of the therapeutic milieu also evolved and promoted the development of residential centers (Kolko, 1992). Milieu therapy was first applied to residential treatment centers for adolescents by Bettelheim at the University of Chicago upon his experience with a World War II concentration camp and his observation that the environment can contribute to the destruction of a personality. This realization changed the focus of treatment centers for youth from one of disciplinary control to one of an environmentally facilitated change (Zimmerman & Cohler, 2000) and promoted the growth of private facilities during the 1940s (Kolko, 1992). Prior to the 1950s, troubled adolescents were seen as too aggressive and destructive for less restrictive inpatient treatment (Pratt & Moreland, 1996).

Still, only a very small proportion of disturbed children and adolescents are placed into residential settings or inpatient units (Barker, 1974b). Current trends suggest that even fewer young people are placed in such settings today, but that there is an increase in their voluntary commitment, an increase in private sector support, and an increase in juvenile court referrals (Kolko, 1992). Most contemporary units are near their operating capacity. In 1990, there were approximately twenty-four specialized schools and programs for troubled youth outside of hospitals, and now the Educational Consultants Association lists two hundred fifty reputable programs with knowledge that there are hundreds of others available. These new smaller facilities are opening at the astonishing rate of three per month, dotting the West Coast, Southwest, and Northeast sections of our country (Rimer, 2001). It is now well documented that adolescents have greater improvements in facilities with other adolescents rather than in facilities with adults or children (Zimmerman & Sanders, 1988).

The Adolescent Population at Residential Treatment Centers

Young people are admitted to residential facilities when "a self-perpetuating cycle of dysfunctional behaviors is well established, and other less draconian, and less expensive, measures have failed." (Barker, 1988, p.9) Male adolescents comprise 66% of residential treatment programs, with the mean age being 14.2 years (Zimmerman, 1998). Patients stay for an average of 5-22 months, and 94% are schooled on the premises. Conduct disorder is the most frequent diagnosis (56%), followed by affective disorders (46%), oppositional defiant disorder (29%), attention deficit disorder (24%), and post-traumatic stress syndrome (13%). Outside of the diagnosable disorders, frequently cited causes for admittance include family problems, peer problems, delinquency, property crimes, history of abuse, learning problems, drug and alcohol abuse, and violent tendencies (Kolko, 1992). The popular press in 2001 added sexual promiscuity, depression, bulimia, anorexia, bipolar disorders, and self-mutilation to the list, with the recent addition of the occasional compulsive computer hacker (Rimer, 2001). Combined inpatient samples of both hospital and residential patients average the 98th percentile on virtually all of the maladaptive scales of standardized tests, including measures of depression, hyperactivity, aggression, and conduct disorder (Jones et al., 1988).

Benefits of Residential Treatment for Adolescents

There are many advantages to treatment in a residential facility. As Wong (1999, p. 42) reports, "Adolescents with long-standing and intense aggressive, destructive, and disruptive behavior are not good candidates for short-term, outpatient, or in-home treatment. Simply put, youth in this state do not participate in or cooperate with therapy. Some type of extended residential or alternative living situation is probably necessary to provide a secure and controlled environment in which to instigate behavior change." Inpatient care can provide immediate help in a crisis situation, and can remove the client from dangerous situations (Barker, 1974). More so than the average outpatient program, residential facilities offer more opportunities for therapeutic contact, more monitoring of dangerous and disturbing behaviors, and a more direct evaluation of aftercare options. Assessments that are hard to do as an outpatient can be done at these facilities, and at multiple intervals, and hence the reactions to medication and other interventions can be watched particularly closely. In fact, with a well-trained staff, all activities throughout

the day can be monitored for the sake of frequent reinforcement and constant therapeutic feedback (Kolko, 1992). Residential treatment centers can also cater to the needs of specific populations. The particular needs of adolescents usually differ in their means of communication and in their views of authority (Barker, 1974a).

One of the biggest advantages of residential treatment is the freedom to use many different treatment modalities. No single treatment model could possibly help all troubled adolescents with their various backgrounds, personalities, and problems (Barker, 1988). Therapeutic milieus at adolescent residential treatment centers are usually characterized by the following elements: consistent rules and routines, program activities, group sessions, individual psychotherapy, conflict interventions, incentive systems, special education, family treatment, parent education groups, and individual behavior modification programs (Whittaker, 1979). More specifically, certain treatments have been advocated for certain problems. For the large proportion of depressed adolescents in residential treatment, Francis & Hart (1992) recommend social skills training, cognitive therapy, and a general increase in activity. For antisocial adolescents, behavioral management and social skills training is effective (Lochman et al., 1992) and anger control programs have a demonstrated success (Feindler et al., 1986). Traditional substance abuse treatments are effective when modified to the background of a particular patient and to the particular abused substance (Kaminer & Bukstein, 1992). Cognitive behavior therapy has been very successful in residential treatments, especially when booster sessions are given after the adolescent is re-exposed to the real world and when the treatment is modified to be age-specific (Kaminer & Bukstein, 1992). Behavior modification techniques of contingency management and token economies are often effective, as many of the children in treatment facilities were never exposed to consistent and adequate systems of discipline at home (Kolko, 1992). An increase in structure that is recognized as fair and predictable motivates young people to pursue rewards and fear negative consequences (Kolko, 1992). Many of these treatment modalities are implemented concurrently within an individual, and in those cases, research is unable to demonstrate which methods are most greatly contributing to treatment success (Kolko, 1992).

Most treatment centers also involve an educational component. In 1975, all students who were labeled as emotionally disturbed were guaranteed a free, appropriate, and public education under law (Loar, 1992). Even in private facilities, the classroom can become an additional environment in which to evaluate and modify a child's behavior, and teachers can contribute to the planning and implementing of the child's treatment.

Limitations of Residential Treatment Centers

There are additional concerns specific to residential treatment centers. Children may become dependent on treatment centers for their structure (Barker, 1998) or for their support (Francis & Hart, 1992). Adolescents may encounter some unintended or unwanted effects (Green & Newman, 1996) such as learning more dysfunctional behaviors modeled by their dysfunctional peers (Barker, 1988). Children may feel disconnected from their families, and the successful treatment of the entire family system may be difficult to accomplish while the family unit is physically divided. Treatment can be very expensive and the length of treatment may be prematurely terminated for

financial reasons despite the clinician's recommendation (Francis & Hart, 1992). This can create a phenomenon termed by Jemerin & Philips (1998) as the "Hello-Goodbye Cycle" that describes the rapid revolving door of patients going in and out of treatment. Such a cycle disappoints and exhausts the staff, weakens peer relationships, and creates an environment with more frequent displays of serious maladaptive behaviors. In addition, patients who seek admittance to a residential treatment program are often found retelling their stories again, going through diagnostic evaluations again, and filling out administrative paper work again, as this intake is not often the first intervention attempt (Kolko, 1992). Multiple intakes also imply multiple failures, and patients usually arrive at residential treatment centers frustrated, hopeless, or otherwise negatively disposed.

I believe there are two problems in residential treatment for adolescents that overshadow the others. The first is that child behavior is extremely context dependent (Barker, 1988). For example, the Ontario Child Health Study (Boyle et al., 1987) showed little overlap between disturbed behavior at school and at home, implying that generalizing behaviors learned at a residential facility may be difficult. Restrictive environments that do not allow adolescents the freedom to experiment with their new skills prevent the observation and modification of the most problematic behaviors (Kolko, 1992). Many times adolescents will make major improvements during the residential treatment that are lost almost immediately after discharge. As Leichman & Leichman (2001, p.22) relate, "All too often they [clinicians] witness the youngsters who blossom in the safe, structured, and nurturant milieus provided in the best residential facilities flounder when transplanted into the radically different environments of their home communities." This phenomenon may be due in part to the attempt of many treatment centers to complete symptom reduction before beginning the development of positive adaptability. When time runs out, this under prioritized aspect of change may remain neglected (Pratt & Moreland, 1996). The second major problem of current residential treatment is, for reasons like the one described above, there is doubt as to whether the end result of residential therapeutic treatment for adolescents is actually successful (Barker, 1988).

Treatment Outcome Studies

The question of successful outcome is not new to the field of residential treatment. Early outcome studies in residential treatment documented complete failures (Shamsie, 1981) and classic studies such as the one conducted at the Menninger Clinic's Children's Hospital often included schizophrenics and psychotics within their samples (Levy, 1969) that are now treated at separate facilities. With reforms in the methodology of psychotherapy, and in the measures used to define successful outcome, recent studies have shown moderately successful results. In 1991, Curry found that 60%-80% of young people have improved functioning at the time of follow-up as compared to the time of treatment commencement. A meta-analysis by Weisz et al. (1992) demonstrated that treated adolescents do better than 76%-81% of non-treated students in controlled studies of outpatient therapies. Pfeiffer (1989) and Pfeiffer & Strzelecki (1990) reached similar conclusions in their reviews of inpatient populations that spanned from 1975-1990. Blackman, Eustace, & Chaudhury (1991) published a 1-3 year follow-up of adolescents who completed residential treatment stating that severe impairment of global functioning

at admission was elevated to moderate impairment at discharge, and to the normal range at follow-up.

The overarching goal of such research is to ensure that we are helping our suffering adolescents in the best way possible (Pratt & Moreland, 1996). Beyond the determination of program success, this research can also improve treatment components, generate reports to funding sources and accrediting bodies, help place children with specific pathologies into appropriate placements (Curry, 1995), demonstrate success to clients and third party payers (Zimmerman, 1998), and potentially influence public policy (Pratt & Moreland, 1996). Eysenck's (1994) claim that only professional psychologists have a vested interested in such research in order to maintain their livelihood has been dismissed.

As useful as this research has the potential to be, it has lagged behind in development for all too long (Zimmerman & Sanders, 1988), and is currently in an unsatisfactory state. Zimmerman & Sanders (1998) speculate that the lack of current literature stems from the lack of residential treatment centers for adolescents before 1960 and from the difficulty in tracking the young and transient participants for follow-up studies. It is particularly hard to study adolescent residential facilities because the populations at individual institutions are so small and the programs across institutions are so distinguished (Burks, 1995).

Curry (1995) discovered the following startling statistics regarding the prevalence of research at residential treatment centers. Few practicing psychologists in contemporary residential settings engage in applied research, only 11% of them considering it part of their job. Only 64% of facilities engage in any type of research at all. Of the research being done at treatment centers, 85% are quality assurance tests, 65% outcome research, and 50% satisfaction research. 34% of the facilities engaged in applied research admit that such studies are externally mandated. 76% of centers have a job position dedicated to research, but only 25% have a budget for such research. When data is collected, only 58% of programs use it for improvement, only 25% to evaluate effectiveness, only 16% to assure quality, and only 14% for aftercare planning. Even fewer reported using the data for the purpose of marketing, scientific publication, generating reports to funders, and for client selection. Only 69% of facilities actually quantify the results of their data collection.

Curry (1995) also reported that the most common method residential treatment centers use to collect data is mailed questionnaires (47%), followed by phone interviews (37%). Response rates via mail are usually 60%, and by phone usually 74%. The four most commonly outcomes investigated are the state of familial relations, legal involvement, school attendance, and emotional well-being. Other common measures include: need for further treatment, completion of aftercare, living status, decrease in symptomology, type of education obtained, completion of treatment goals, and stability of placement after discharge. Research methods are generally constrained by inadequate resources and inherent methodological difficulties. For example, only 14% of residential outcome studies use any type of contrast group. Actual control groups are nearly impossible since there are no groups of people that are similar in level of functioning, severity of symptoms, family histories, and socio-economics, that would not create a legal and ethical dilemma if they were not given treatment for as long as treatment and follow-up studies take (Weisz et al, 1992). Seventy-five percent of treatment facilities do

not collect pretreatment evaluations that could be used to create baseline measures (Pfeiffer, 1989) as an alternative form of control.

As Zimmerman (1998, p.46) said, the "need for improving outcome evaluation in residential treatment programs cannot be overstated." Research methods in the field have already been continuously improving. Originally, the only valued measure of outcome was whether the adolescent could return to living with the family, ignoring the tendency of families to mask certain problems, adjust to accommodate problems, or to outright tolerate many problems. Research has since shifted to looking for ways a recovering patient has developed his or her own positive and individual identity (Zimmerman et al., 2001). Research has also shifted to the use of standardized questionnaires, collected well after discharge, with more than one follow-up, and has attempted to contact every member of the population, trying to compare them to a genuine contrast group (Zimmerman, 1998). Good studies are expected to use multiple measures of outcome (Green & Newman, 1996), though as many as 68% of outcomes studies use assessments by only one person (Pfeiffer, 1989). Even among clinical staff, inter-rater reliability of outcome rating may be as low as .42 (Mordock, 1986), making multiple impressions essential.

Based on the research that has been collected and analyzed, several reports have been published with recommendations as to how to improve residential treatment. Pfeiffer & Strzelecki (1990) advocate shorter treatments for a smoother transition back into the natural community, and Barker (1988) believes that treatment over six months should be avoided at all costs. Ney et al. (1988) do not think it matters how long the treatment lasts, so long as the length of time is clearly specified at the time of admission. Barker (1988) insists that a discharge plan should be in place at the time of admission, that the family should be involved in treatment, that the goals of the treatment plan should be clearly defined, and that the young person should spend as much time in the physical custody of the parents during treatment as possible. Some of these recommendations are highly contested because the suggestions are unsubstantiated by research or because the research was conducted without meaningful levels of external validity.

Clinicians and researchers do agree that of utmost importance is the need for the maintenance of gains that are made in treatment facilities. Leichtman & Leichtman (2001) argue that this can be achieved by continuing treatment on an outpatient level. Currey (1995) found that post-discharge support is a strong predictor of later adjustment. Burks' (1995) study of the Edgewood Children's Center discovered that consistent family therapy post-treatment correlated with positive outcome, but that sporadic counseling had no effect. She also believes that discharge to a family unit is better than discharge to any institution. Additionally, it is speculated that students need to be given opportunities to act out in gradually less restrictive and supervised residential environments in order to have a greater potential for their learning to be generalized to the real world. Maluccio & Marlow (1972) suggest participation of residents in community programs in order to foster these goals.

Two Styles of Outcome Research: The Efficacy vs. Effectiveness Debate

In order to make any further recommendations to the clinicians at treatment centers, more conclusive research must be done. There are two types of outcome studies in clinical psychology that can contribute to this knowledge base: efficacy studies and effectives studies. Efficacy studies have high levels of internal validity. Many are random controlled trials with a fixed duration of therapy, the inability of therapists to switch methodology in the midst of treatment in a self-correcting fashion, the exclusion of the co-morbidity and sub-clinical diagnoses common in the field, and the avoidance of subject self-selection into specific treatment modalities (Seligman, 1995). Therapists get special training in treatment methodology and subjects are volunteers (Pratt & Moreland, 1996). Efficacy studies do not evaluate treatment as it is actually performed in community settings, and thus the findings are sometimes less meaningful to those who conduct actual clinical practice (Goldfried & Wolfe, 1998). Efficacy studies may also maximize the differences found between treatment and placebo effects. By the definition of placebo, the administrators of the placebo treatment do not usually believe that it will have therapeutic effects (Eysenck, 1994), thus negating its power. A rigid scientific outlook often overlooks the subjective effects of treatment, such as increased morale, and the meaning of clinically significant results. (Pratt & Moreland, 1996). It is very easy to become so focused on the research paradigm that one ignores ecological significance (Goldfried & Wolfe, 1998).

Therapy research adopted these methods in the 1980s in order to compete with pharmaceutical companies. This standard of control was set by the National Institute of Mental Health, which is a major source of funding, when it declared that clinical studies must study populations with particular DSM-IV diagnoses in order to receive grants (Goldfried & Wolfe, 1998). This facilitates communication within the field, but also eliminates half of all adolescents from studies because they have co-morbid disorders (Pratt & Moreland, 1996). This is even more problematic for adolescents because some typical problems (such as substance abuse) do not have explicit diagnostic criteria in the DSM for their age group (Kaminer & Bukstein, 1992). Residential treatment is particularly sensitive to the many difficulties of implementing controlled studies since it is very hard to prevent treatment effects from affecting the control groups in the close living quarters of a single facility, and it is also very difficult to attribute significant outcome to manipulated variables across different treatment settings (Curry, 1995).

On the other hand, effectiveness studies are studies of treatment applied in more typical community settings. These studies lack some of the internal controls that are consistent with good scientific practice, but have certain advantages in external validity that make them very valuable to practitioners. Such studies can integrate established efficacy with the practicality, popularity, and cost-effectiveness of treatment (Jacobson & Christensen, 1996). Effectiveness studies allow patients to stop treatment as they would in the natural world based on feelings of improvement, feelings of no improvement, or shortages in funding. In the field, there are no strict research manuals helping therapists by outlining treatment protocols, which are often accused of being at the expense of the therapeutic alliance anyway (Goldfried & Wolfe, 1998). Therapist resistance to new models and to program adjustments is another variable encountered in the field that is almost never found in the lab (Wong, 1999). A number of these effectiveness studies have been completed to evaluate residential treatment. When these studies were

reviewed together by Weisz et al. (1992), they found no different between completers and dropouts one year later. However, the studies included in this survey were older ones, so it is not clear if a meta-analysis on newer studies would produce similar disappointing results.

Consumer Reports: A Model for Effectiveness

The now well-known Consumer Reports (CR) study, designed by Seligman (1995), is an example of an effectiveness study that has had a pervasive impact on the field. The study asked magazine readers whether they had used psychotherapy within the previous three years, whether the specific problem that they sought treatment for was helped, if patients were generally satisfied with treatment, and if they sensed any global improvement in their functioning. With merely a 13% response rate, Seligman concluded amongst other things that: treatment by mental health professionals works, that long term therapy is better than short term therapy, that people who actively pick their therapy and therapist do better in treatment than people who are passive recipients of such decisions, and that clients with limited insurance coverage have poorer outcome. These findings point out several shortcomings of efficacy studies while encouraging the continued development of long-term psychotherapies. At least for early stage treatment evaluations, it is easy to find merit in his advocacy of effectiveness studies.

Future effectiveness studies should, however, make some methodical adjustments to this research model that will allow for greater internal validity. It must be recognized that some "passive recipients" of treatment may not do the "active shopping" for a particular therapist themselves, but may have other people do a thorough search for them with their best interest in mind. If Seligman's paradigm is to be extended to children, I suspect that this new category will become quite important. In future studies all subjects should be treatment completers, and a more detailed analysis of areas of problems and successes should be documented. Seligman acknowledged his need for more details, but felt that the survey would have been too cumbersome. In order to use a lengthy survey without harming the potential response rate, experimenters will have to look for a very unique population or plan for a substantial incentive to participate. Most importantly, an effectiveness study will benefit from using multiple measures instead of simply a self-report from the individual in therapy. More than one person's opinion of the patient's change will make the findings much more meaningful, especially if one evaluation can be blindly objective. A diagnostic tool with standardized norms could also be included in the survey materials in order to objectively measure the patient's return to a non-clinical state.

The Academy at Swift River Residential Treatment Facility

The present study involves the study of the effectiveness of a relatively unique residential treatment program, the Academy at Swift River (ASR). ASR is a treatment facility in Western Massachusetts that refers to itself as an emotional growth boarding school for college-bound adolescents. The program is unique in many ways in its attempts to resolve some of the problems currently pervading adolescent residential treatment, making it a very worthy candidate for outcome study. The 630-acre campus has the capacity to serve 130 students, and like most other facilities, is currently serving more than that number. There are on average 80 male students and 30 female students

using campus beds at any given time, and many others traveling off campus. Treatment is broken up into three large phases: a wilderness experience known as base camp, a twelve month stay on the main campus with academic classes and group therapy sessions, and a Costa Rica service learning project. Tuition for this intensive therapeutic environment is $5,600 a month, with extra costs associated with the wilderness and Costa Rica components, and a $1500 extra charge if the child is on medication and needs to be monitored by a psychiatrist (retrieved from: http://www.swiftriver.com).

As is the case at other residential treatment facilities, the desperate parents of these students feel that they cannot help their children on their own, and are often frustrated with years of failed treatment trials with professionals. The students are slightly older than the mean across outcome studies, ranging from 13-17 at admission. The common diagnoses are similar at Swift River to those at other residential facilities for adolescents, with the exception that the academy does not typically accept students with psychotic disorders or with intelligence scores in the mentally retarded range that could prevent success in their academic program. As with other residential centers, the proportion of adopted children at Swift River is 30% (Blackman et al., 1991). The program takes approximately 14 months to complete with up to 1 month of variability dependent on how long the base-camp transition takes. This program is a longer program that those advised by several experts in the field. ASR provides an accredited high school education on the grounds in addition to 24-hour crisis intervention services and behavioral observation.

Actual treatment is truly integrative and includes the common models of cognitive-behavioral therapy, experiential therapy, psycho-education, behavioral modification, social skill building, dialectical/emotional therapy, family therapy, interpersonal therapy, group therapy, and substance abuse treatment groups. The treatment is extremely family-focused, but letters and weekly phone conversations are used to foster positive communication rather than frequently placing the student back home. In fact, ASR only plans for four parent visitations over the entire treatment. The academy attempts to teach adaptive traits while simultaneously reducing symptoms instead of performing these tasks sequentially. Unlike other treatment facilities that have been studied, ASR has outlined their treatment goals and methods for each particular phase of therapy. Perhaps the strongest distinction of this program is in its attempt to reflect the recommendations of treatment literature that advises that (1) large amounts of planning go into aftercare (including placement selection and improved family relations) and (2) students are gradually given real world freedoms to test their new skills before discharge. The largest drawback of the facility is the lack of any prior self-reflective research, aside from the gathering of anecdotal accounts, and the lack of any standardized intake measures to serve as a baseline for outcome evaluations to begin.

Because there is a large deficit of well-designed outcome studies on the treatment of inpatient adolescents with applications for the real world (Lockman et al., 1992), and because the typical demands of clinical care conflict with the resources needed for research, Curry (1995) suggested that residential treatment centers coordinate with colleges whenever possible to do competent outcome research. The present study examines the outcome of ASR graduates in the dimensions of psychopathology (e.g., depression, conduct problems, anxiety), positive adaptation (e.g., academic achievement, relationships, involvement in activities), and consumer satisfaction. The data reflect the

students' current well-being, gathered through student self-report and parental report. Students and parents both completed a detailed questionnaire regarding their perceptions of student change during treatment and a standardized questionnaire with national norms used to assess whether the student has returned to a non-clinical status. My predictions were that (1) participants would report decreases in levels of psychopathology, given that the pre-treatment behaviors were so extreme, but that many of the students would still remain in the clinical range, (2) participants would report levels of positive adaptations to have changed relatively less from pre-treatment to post-treatment, as these changes were not as salient, but many of the students would have returned to the normal range due to ASR's unique focus on personal growth, and (3) participants would report high levels of satisfaction because predictions one and two predict a net positive outcome in the eyes of the patients and their parents.

Method

Description of Treatment Program

According to Blackman et al. (1991), outcome studies are impractical unless they include a thorough treatment description. The following describes the daily operations at the Academy at Swift River. Students at ASR live a very structured lifestyle. The typical Monday begins at 6:30 A.M. with breakfast and participation in a clean-up crew. The morning consists of three academic periods, and the afternoon consists of three more. The day is filled with several meetings of the entire student body, a mandatory study hall, nightly individual therapy with another student or a staff member, and a total of 90 minutes of free time, including the time spent rotating through a shower shared by 4-6 other adolescents. On Tuesdays, Wednesdays, and Thursdays two of the academic periods are replaced with a group therapy sessions. Lights out is strictly enforced at 10 P.M. Wake-up on the weekends approaches 9 A.M., after which campus deep cleans occur, and rewarded students participate in off-campus activities like a trip to the rock wall or mini-golf course. Saturday night concludes with a recreational movie and Sunday night concludes with a formal dinner.

Students at ASR abide by three main agreements: no sex, no drugs, and no violence. These rules are enforced at the earliest signs of offenses (i.e., there is toleration for handholding or the sharing of seats, no coffee or caffinated beverages, and no cutting oneself or purging). Violations of these main agreements can potentially get students removed from the program. Many other restrictions also exist, but with less severe consequences. For example, there is no borrowing of clothing, no retreating to the dorm rooms, no shirts without collars, no facial hair, no all black outfits, no wasting food, no frayed clothing, no eating outside of mealtime, no nail polish, no concert t-shirts, no feet on the furniture, no untied shoelaces, no hats indoors, no shorts with less than a five-inch inseam, no baggy clothing, no bare feet, no make-up, and no hemp or excessive jewelry. Violations are met with punishments such as: doing dishes, getting work projects on the weekends, reflective writing assignments, staring at yourself in the mirror for extensive periods of time, losing money at the school store, eating last, getting reading assignments, being put in isolation, mandating an "older" student to escort a "younger" throughout the day, sleeping on the floor in the night security office, a body search, or creating a written confessional list of your behavior violations and the violations of your peers. On the other hand, rewards for positive behaviors include: admittance to the Saturday night

movie, writing home for a personal item such as a piece of sports equipment or a musical instrument, permission to dial your home phone number by yourself, more money in the school store, earning higher weekly trust rankings from the staff, more time without supervision, permission to write siblings and eventually three friends from home, the right to put photographs from home on the dorm walls, longer phone calls to parents, permission to send and receive your letters sealed without staff review, membership in activity clubs for snowboarding or theatre, all-star trips during the two weeks in between school semesters, earning 5 personal CDs, and becoming an enrollment aid for incoming students (which is a highly desired position as it involves missing class). See Appendix A for a more detailed description of the phases of treatment.

Participants in the present study

Participants in this study are students that graduated the Academy of Swift River between the dates of December 17, 1999 and November 16, 2001. Of the 191 students that were scheduled to graduate during this time period, 151 actually graduated. Some of the cited reasons for dropping out include the transfer into another program, self-dismissal at age eighteen, medical leave, and running away. Of those that graduated, 125 students had mailing addresses that could be verified through the yellow pages and other Internet search engines. This excluded 3 graduates living outside the United States, 24 graduates with a name change or an unlisted address, and 1 graduate who had committed suicide.

Measures

I designed two questionnaires, one for ASR graduates and one for their parents, based on the program's treatment goals as described by the Head Master. Both of these questionnaires use a seven-point scale for participants to describe their behavior and feelings before, during, and after treatment. The questions aimed to address clinical improvement in psychopathology, positive adaptations, and client satisfaction while they also served to gather basic demographic information about the sample, including what treatment they have received since ASR. Completing this questionnaire took participants about 40 minutes. In addition, both parents and adolescents completed the Behavior Assessment System for Children (BASC) (Reynolds & Kamphaus, 1998). The BASC is multidimensional in that it too provides information about adaptive traits in addition to psychopathology. This questionnaire has established reliability, national age-appropriate norms for the purpose of sample comparison, and validity. When scoring the parent's report on the adolescent child, I used the following scales measured by a series of questions on a four point scale ranging from "never" to "almost always": aggression, conduct problems, anxiety, depression, withdrawal, leadership, and social skills. This form typically takes 15 minutes to complete. When scoring the self-report of personality for adolescents aged 12-18, I used the following student scales measured by a series of true/false questions: anxiety, locus of control, social stress, attitude to school, attitude to teachers, depression, sense of inadequacy, relations with parents, interpersonal relations, self-esteem, and self-reliance. This form typically takes 30 minutes for a student to complete.

The surveys were addressed to the parents and mailed to participants in an ASR envelope with a cover letter from the school's headmaster and a cover letter from myself.

The participants were asked to return the informed consent and multiple questionnaires within a three week time period. For the sake of confidentiality, there were two separate return envelopes for the parents and the child. All participants were informed that ASR would only be informed of group results and not see any individual responses. If forms were not returned within the allotted timeframe, a single follow-up call was made to each family. Students were encouraged to participate through the opportunity to write a message to all other participating alumni and receive these messages with updated contact information for all other participating students.

Results

A Description of the Respondents

Thirty families agreed to participate in this extensive survey, making for a 24% response rate. Of these families, only 2 returned more than one parent questionnaire, and only 17 students returned their self-reports. Of the parent respondents, 70% were mothers, 20% fathers, 3% stepmothers, and 7% both mothers and fathers in collaboration. Thirty-eight percent of these parents reported living with the graduate, 30% reported living apart from the graduate, and 33% reported living with the graduate on a part-time basis. Table 1 presents additional demographic information on the present family structure of ASR graduates. Two-thirds of these parents had a male graduate. Parents reported speaking to their child an average of more than twice a week, but not quite daily.

The student respondents ranged in age from 16-20 years old (M = 17.9). Half of them were female, and all but one was Caucasian. Of all the 30 students for whom data were collected, 13% returned to his or her original school after ASR, 3% enrolled in a new public school, 10% enrolled in a new private school while living at home, 33% attended a residential boarding school, 6.7% attended college while living at home, 23% went straight to a residential college, 3% found employment while living at home, and 6% attended other residential programs for adolescents. At the time of the survey, 40% were juniors or seniors in high school, 30% were in their first year of college, and 13% were in their second year of college. A total of 56% of students reported some attempt at a college education, though only 43% of the students were enrolled at the time of the study. Sixty-six percent of students reported currently having a job. The average ASR graduate reported contact with somebody from his or her ASR graduating class within the past two weeks and with a staff member within the past three months. The length of time since graduation for this sample ranged from 6.5 to 26.5 months, the average being 13.9 months.

Of these families, 46% already had attempted residential treatment for their child prior to ASR. Table 2 presents satisfaction with the level of support from previous mental health professionals and suggests that only 36% felt that the support they received was better than satisfactory. None of the students required psychiatric hospitalizations after ASR, though 66% resumed outpatient individual therapy, 10% continued group therapy, and 10% used family therapy. Psychiatric medication was used by 60% of the student sample prior to ASR, and only 46% of the student sample after ASR. Before treatment, the average ASR student was suspended 1.5 times and ran away from home 1.1 times, but has done neither since. Parents and children independently asserted that the average student intended to follow their ASR post-treatment contract to the degree of a 5 (on a

scale from 1-7, 7 being perfect), and that the average student has in fact followed this contract to the degree of a 4.

Findings for Psychopathology

The parents and students both perceived changes in the student from the time before treatment to the time of follow-up. Parents found the frequency of alcohol use and of cigarette smoking to have improved ($p \leq .01$). Parents also found the following areas to have shown additional improvements ($p \leq .001$): trouble making behavior at school, sexual promiscuity, desire to hurt oneself, the impact of alcohol use on daily life, the frequency of drug use, and the impact of drug use on daily life. Students had similar impressions of their own improvement. The frequency of smoking and alcohol use decreased ($p \leq .05$) and the impact of alcohol on daily life also improved ($p \leq .01$). Students found the following additional areas to have shown improvement ($p \leq .001$): getting into trouble at school, skipping school, sexual promiscuity, frequency of drug use, and the impact of drug use on daily life. Twelve percent of ASR students had attempted suicide prior to treatment, and none reported attempting suicide after treatment.

Of the 49% of students who reported that they planned to be sober following graduation, 5% have been completely sober since they graduated, and an additional 12% used substances after treatment, but have now committed to a lifestyle of sobriety. Despite the consensus that drug use in graduates has declined, since graduation, 64% have used marijuana, 12% mushrooms, 12% cocaine, 12% ecstasy, 6% acid, and 6% abused prescription drugs. Table 3 reports the means for these items pre- and post-treatment as reported by parents and students.

The BASC standardized test determined whether these perceived changes actually reflects a return normalcy as compared to national norms. I found the parent scales of student aggression, anxiety, depression, and withdrawal to all be below the clinical range, though the percentiles are in the high range of the normal population (See Table 5). The measure of conduct is over 2 standard deviations away from the mean, placing this sample in the clinical range. The BASC student scale of anxiety is also well within the normal range. The student scales of inadequacy and external locus of control are slightly within the clinical range and the depression scale is well within the clinical range. The BASC scoring manual confirms that high levels of conduct problems reported by the parents usually correlates with high levels of depression in the student (Reynolds & Kamphaus, 1998).

Findings for Positive Adaptation

The findings for positive adaptations are similarly optimistic. Parents believe that the social support they offer, and that the amount the child volunteers, has improved ($p \leq .01$). Parents also think that the following areas have shown improvement ($p \leq .001$): the child's grades and ease of learning, the quality of peer relations and peer social support, the child's leadership skills and the child's spirituality, the relationships with both the mother and father, the child feeling pleased with his or her own behaviors, the parents feeling pleased with the child's behaviors, the communication and honesty in the family, the amount of stress the family creates for the child, the amount of stress the child creates for the family, the degree to which the parent's expectations of the child are fair, and the child's overall happiness.

Students have similar impressions about the improvement of their situation. They feel that their families create less stress in their lives now than prior to ASR ($p \leq .01$). They also believe the following areas to have shown improvement ($p \leq .001$): the ease of learning, the quality and support of their peer relationships, social support from their parents, honesty and communication within the family, the individual relationships with their mother and father, feeling pleased with his or her own behavior, having a parent pleased with his or her behavior, the degree to which the child creates stress in the family unit, the fairness of parental expectation, and his or her overall happiness. The amount of organized activities that these students participated in did not show any significant change, though 53% of the students reported presently playing team sports, 16% committing to recreational outdoor activities, 16% doing community service, 10% working on student governments, 6% writing publications, 6% contributing to the arts, 3% participating in theatre, and 3% joining religious groups. Table 4 reports the means for these items pre- and post-treatment as reported by parents and students.

The BASC parent scales of leadership and social skills are within the normal range (See Table 6). The student scales of interpersonal skills and self-esteem are also in the normal range. The student scales of social stress, attitude toward school, and attitude toward teachers are all on the problematic side, but also within the normal range. The student scales of parent relations and self-reliance are well into the clinical range. Based on student and parent perceptions, the BASC scores on these dimensions are most surprising.

Consumer Satisfaction

One hundred percent of parents and students that participated in this study said that they would recommend ASR to others. In addition, all participants were asked to rate how much impact ASR had on the different aspects of the child's present behavior. With 1 being an extremely negative influence, and 7 being an extremely positive influence, the average parental rating across psychopathology scales was a 5.4 and across positive adaptation scales a 5.3. The average student ratings were likewise high, being both a 5.6 on psychopathology and positive adaptation scales.

Discussion

Interpretation of Results

The results of this study are not as I predicted. I predicted the large parent and student perception of change in psychopathology, which was found, but I did not predict a return to the normal range of these measures on the BASC psychopathological scales, which occurred on all scales except that of parent reported conduct and student reported depression. I also predicted the parent and student perception of change in positive adaptability, which was found, but I wrongly predicted that all BASC adaptive scales would fall into the normal range. Relations with parents and self-reliance were surprisingly far into the clinical range. None of the BASC scales that were found to be in the clinical range were reported as unchanged through treatment by student or parent reports.

There are three main ways in which to interpret these results. First, it is entirely possible that there was significant change of these measures as a result of treatment, but not enough of a change to bring the extreme behaviors into the normal range. Weiss et

al. (1999) found that parents often reported high levels of satisfaction with psychotherapy despite the lack of tangible improvement in their child. This interpretation has interesting implications. If the parent and the adolescent both perceive improvements in well-being, does any other measure of treatment success really matter? The decision as to which outcomes are most important is very dependent on who is asking the research question. For example, insurance companies want to know which method is the most cost-effective, while parents hope to find the quickest treatment for antisocial behavior at almost any cost (Pratt & Moreland, 1996). Nobody seems to have asked the students what they would like their own outcome to be, and we can assume that successful outcome is very dependent on treatment goals, which can be expected to vary considerably across individuals. How we define meaningful outcome will continue to be a large debate in the field.

The second way of interpreting the results finds the two measures from this study inconsistent with each other. It is possible that the BASC scores were not reflective of what I intended to measure. The BASC is meant for the analysis of children up to the age of 18, and 30% of my student sample was outside of that range. Asking a college sophomore if he drinks alcohol should not be a large factor in his overall degree of misconduct. Many of the conduct questions did not concern lying or cheating, but concerned cigarette smoking and foul language, which are more acceptable at an older age. In the United States, 4.8% of high school students report drinking alcohol daily (Kaminer & Bukstein, 1992). In my sample, 5.9 % of students reported this same frequency, though many of them are older. Considering the average age of my sample, conduct is likely to have been misjudged by the BASC. Parents may also have interpreted questions such as "has been suspended from school" as inquiring about throughout the student's entire life as opposed to just post-treatment. In a similar fashion, the depression scale may have been skewed by the degree of loneliness that some students describe feeling upon their ASR discharge, which may be unfairly compared to the tight bonds many experienced in the ASR environment. Many of the questions asked if they felt alone or misunderstood, and I speculate that these students are often so self-reflective and honest post-treatment that they are unaccepted by their own peer group. My hope is that this elevated depression is short-term, and will decline as their untreated peer group eventually reaches a similar level of maturity. I also believe that the student's strong inclination toward an external locus of control may be a direct result of the treatment at ASR. Perhaps because the program places such a strong emphasis on family systems and the interdependence of family members, graduates do not evaluate any situation as if it is completely within their personal control. The students that serve as the national norm may not interpret these questions in this way, but such an adjustment in the perception of control would not necessarily make the ASR graduates maladaptive in any traditional sense. The BASC results in general must be considered carefully, as the amount of data that was missing from respondents should limit the implications of such findings (Shapiro, Welker, & Pierce, 1999).

A third way to interpret the results would be to assume that the BASC answers may be a better representation of reality than the perception of improvement by the clients. Previous studies (Zimmerman, 1996) have demonstrated that the average correlation between parent and child reports is only .25. This has been attributed to parents being unaware of their child's behaviors and to the different value systems of

adolescents and adults (Pratt & Moreland, 1996). My separate envelopes may have not been enough reassurance for the students to be completely honest in their responses to such personal and potentially incriminating questions, thus inflating levels of perceived change.

Whichever way these results are interpreted, it is clear that my findings replicate and support the findings of the Consumer Reports study. They show that psychotherapy is helpful, especially over the long-term. This sample is composed of "active shoppers" for treatment and representative of a socio-economic bracket that does not have to worry about insurance payments, both predictors of treatment success according to Seligman (1995). These new findings enable us to take the CR study a step further, now extending the results to generalize to adolescent clients and to residential treatments. I was also fortunate enough to have a better response rate while collecting significantly more information, and while Seligman used a sub-clinical sample that may be easier to treat, I used a sample with very low chances for spontaneous remission (Shapiro, Welker, & Pierce, 1999). In his closing, Seligman (1995) claimed that the ideal effectiveness study would address three questions: Primarily, do people have fewer symptoms and a better life after therapy than before? Yes, I was able to replicate Seligman's findings in support of psychotherapy. Secondly, does psychotherapy return people to normality within two standard deviations of the average? Though Seligman did not test this himself, I have now found support for this on the majority of scales for both psychopathology and positive adaptations. Lastly, does psychotherapy do better than the alternatives? This question remains unanswered but is important in the next phase of research.

Study Limitations

There are many other research questions that this study does not have the capacity to answer. Does the retrospective nature of the questionnaire make the responses vary in some systematic way? I believe that it is as likely that retrospection affected participants in a random fashion and did not confound the study results, but no conclusions as to how retrospection changes responses can be drawn from this study. Do the expectations and demand characteristics of the clients taint their responses? I can only hope that since I am unaffiliated with ASR's program that such affects have been minimized. Does the degree of client satisfaction cloud their assessment of behavior change as Jacobson & Christensen (1996) suggest? I placed the satisfaction questions at the end of the questionnaires so that the responses to these questions themselves would not directly affect the remainder of the survey responses, though this does not completely eliminate the possibility of contamination. Can the documented student change be attributed to the ASR treatment program rather than to a prior program or an aftercare program? Though I cannot be sure that these results are caused by ASR's treatment program, it is easy to speculate that ASR had much to do with the results. Thirty percent of clients reported no or poor support from mental health professionals prior to ASR, and only a small number of patients continued in consistent therapy after treatment. Since 87% of outcomes studies do not report the treatments that participants receive prior to the treatment being studied (Pfeiffer, 1989), this information may be very valuable to the field.

Can the results be attributed to the simple maturation of students or to the passage of time (Wong, 1999)? As Eysenck (1994, p. 481) reminds us, "Since prehistoric times men and women have used many strategies to reduce anxiety, depression, and other

psychological dysfunctions." He found the spontaneous remission rate of control groups to approach 72% (Eysenck, 1955). Accordingly, the Academy at Swift River cannot take all of the credit for client change based on these results, but with such a severe sample, Eysenck's findings cannot be generalized (Shapiro, Welker, & Pierce, 1999). Furthermore, his measures of outcome are much more basic that those used modernly and in this study. I find it also unlikely that these changes are simply due to a normal progression of age, for I imagine that when most students transition from their younger teenage years to their older teenage years, the frequency of sexual intercourse would increase. In the case of ASR graduates, normal development and socialization is overridden by treatment and the mean number of sexual partners my sample had decreased from 4.9 pre-treatment partners to 3.4 partners at follow up. We must still air on the side of caution, for as Selgiman says, (1995, p. 972) "such high rates of improvement are a yellow flag, cautioning us that global improvement over time alone, rather than with treatment or medication, may be the underlying mechanism."

We also must consider whether these results would change with a higher response rate. If there was more support for research from the staff at ASR, more effort would be put into careful record keeping of the names and addresses of graduates. As the facility becomes more research minded, and more graduates can be contacted, the results have the potential to change. The results may also look very different if ever compared to a pre-treatment measure of the students at intake or as compared to treatment dropouts after the same time interval. Though a sampling bias could have potentially have had a large impact on the results of this study, the excuses I heard not to participate had to do with behavioral breakdowns as often as they had to do with too many after school commitments and other measures of success, implying that such a bias was not one-sided And lastly, the study of outcome in itself has the potential to change the treatment outcome.

Future Directions of Research

To follow-up these findings, there is a lot of exciting research to be done! Using the BASC teacher questionnaire to determine how a more objective person evaluates the student is one potential idea. I predict that in such research an even greater degree of change will be detected, as has been shown in prior studies comparing adolescent behavior assessments through parents, teachers, peers, and self-reports (Weisz et al., 1987) who claims that people without personal investment in the client usually notice greater changes. I also think that thought and discussion should be commence in order to determine how such an expensive program like ASR can be made accessible a larger population of needy clients.

It will be essential for the further integration of effectiveness studies such as this one with efficacy studies. As already noted, both have certain research strengths and neither should be dismissed for the sake of practicing the other. Whether considering effectiveness or efficacy studies, adolescence is a difficult stage of life in which to measure treatment outcomes. As we gain more insight as to how normal child development occurs, we will be able to further understand how to avoid and treat psychopathology (Pratt & Moreland, 1996). Another way to bridge the different fields of psychological research is to use entirely different means of treatment evaluations. Casey & Berman (1985) found that treatment seems to improve cognitive functioning more than

self-concept or personality. Similarly, Zimmerman, Myers, & Epstein (2001) used an ink-blot test to measure the improvement of object representations for the self and for others. No matter which method we choose for future outcome studies, Green & Newman (1996) suggest that we consider the relevance of the measurement to the target population, the simplicity of the measurement to use and interpret, the objectivity, validity and sensitivity of the measurement, the use of multiple respondents in measurement, the clinical utility of the measurement, and the compatibility of the measurement with clinical theories.

My compliments go to the Academy at Swift River for having such successful program graduates as determined by the measures used in this study. Hopefully the center will be able to address some of the problem areas as indicated by the BASC scales, and will use my research as a starting point for many other outcome evaluations. These should include studies after longer follow up intervals, and a study to clarify whether family relations are in fact as good as the families report, or as problematic as the BASC implies. The implications of this research, however, extend well beyond the scope of ASR's treatment program. I recommend that other residential treatment centers for adolescents also secure positive aftercare arrangements for their students and gradually allow students to test the values learned during treatment in the real world prior to a final discharge. My findings contradict the idea that making fundamental changes during late adolescence is nearly impossible (Loeber, 1991) and also dispel the myth that long-term treatment is detrimental to normal development. The most important finding of this study is that residential treatment for troubled adolescents has the potential to be extremely effective.

Table 1
Present Family Structure of ASR Graduates

Reported to Live With:	Yes	No	Part-time
Mother	40%	30%	27%
Father	33%	40%	27%
Step-Mother	3%	97%	0%
Step-Father	7%	87%	0%

Note: Percentages may not sum to 100% due to missing information

Table 2
Parent's Degree of Perceived Support from Mental Health Professionals for the Child Prior to ASR

Saw no private therapist	13%
Received very poor / poor support	16%
Received satisfactory support	20%
Received good / very good support	26%
Received extremely good support	10%
Missing Data	13%

Table 3
Pre-Treatment and Present Comparisons of Student Psychopathology

Item	Pre-Treatment Mean Reported by Parents	Present Mean Reported by Parents	Pre-Treatment Mean Reported by Students	Present Mean Reported by Students
Finds Trouble at School	2.6	5.7***	2.5	5.8***
Skips School	N/A	N/A	2.8	5.8***
Promiscuity	3.6	5.7***	3.7	5.6***
Desire to Hurt Oneself	5.2	6.6***	N/A	N/A
Purging Behavior	N/A	N/A	6.5	6.9
Frequency of Alcohol Use	3.2	4.4**	2.9	4.0*
Alcohol Use Interferes with Life	4.1	5.7***	3.2	4.9**
Frequency of Drug Use	2.2	5.1***	2.0	5.8***
Drug Use Interferes with Life	2.5	5.7***	2.7	5.5***
Frequency of Cigarette Use	2.8	4.2**	2.7	4.3*

Note: All items are on a 1-7 scale from most negative to most positive.
Significant changes in means from pre- to post-treatment are designated as follows: *$\underline{p} \leq .05$; **$\underline{p} \leq .01$; ***$\underline{p} \leq .001$.

Table 4

Pre-Treatment and Present Comparisons of Student Positive Adaptations

Item	Pre-Treatment Mean Reported by Parents	Present Mean Reported by Parents	Pre-Treatment Mean Reported by Students	Present Mean Reported by Students
Quality of Grades	2.1	4.6***	N/A	N/A
Ease of Learning	2.3	3.9***	2.8	4.9***
Quality of Peer Relations	3.0	4.8***	3.9	6.0***
Social Support from Mother	4.9	5.5**	4.6	6.0***
Social Support from Father	4.7	5.7**	4.3	5.9***
Social Support from Friends	3.3	5.0***	N/A	N/A
Involved in Organized Activities	3.3	3.8	N/A	N/A
Leadership	2.3	3.7***	N/A	N/A
Child Pleased with Own Behaviors	2.6	5.1***	2.2	5.5***
Parent Pleased w/ Child Behavior	2.4	5.3***	2.1	5.5***
Communication in Family	2.0	5.3***	1.4	5.2***
Honesty in Family	1.6	5.0***	1.8	5.4***
Relationship With Mother	N/A	N/A	2.1	5.5***
Relationship With Father	N/A	N/A	2.4	5.6***
Family Creates Stress for Child	2.5	4.2***	2.9	4.5**
Child Creates Stress for Family	1.4	4.2***	1.2	4.8***
Fair Parental Expectations	4.5	5.7***	3.6	5.4***
Focuses on Spirituality	1.8	2.9***	N/A	N/A
Volunteers	2.0	3.0**	N/A	N/A
Daily Happiness	1.7	5.0***	1.9	5.6***

Note: All items are on a 1-7 scale from most negative to most positive.
Significant changes in means from pre- to post-treatment are designated as follows: *$p \leq .05$; **$p \leq .01$; ***$p \leq .001$.

Table 5

Present Student Psychopathology as Measured by BASC Responses

Scale	Mean T-Score	SD	Percentile
Parent:			
Aggression	58.8	12.5	84%
Anxiety	57.5	12.7	81%
Conduct	72.2	18.9	96%
Depression	56.5	15.3	76%
Withdrawal	61.3	19.8	88%
Student:			
Anxiety	56.1	9.0	67%
Depression	81.0	3.2	98%
Locus of Control	72.2	4.5	97%
Sense of Inadequacy	73.4	6.6	98%

Note: For the BASC, national $M = 50$; $SD = 10$
These scales are considered clinical for T-scores over 70.

Table 6

Present Student Positive Adaptations as Measured by BASC Responses

Scale		Mean	SD	Percentile
Parent:				
	Leadership	46.7	9.6	38%
	Social Skills	47.6	11.0	41%
Student:				
	Attitude Toward School	63.0	6.7	87%
	Attitude Toward Teachers	61.8	8.6	85%
	Interpersonal Relations	41.5	8.5	17%
	Relations with Parents	20.9	8.5	2%
	Self-Esteem	48.8	10.7	33%
	Self-Reliance	13.7	5.5	1%
	Social Stress	65.5	6.4	89%

Note: For the BASC, national M = 50; SD = 10

These scales are considered clinical for T-scores under 30, except in the case of Attitude Toward School, Attitude Toward Teachers, and Social Stress, which are considered clinical for T-scores over 70.

Appendix A: Treatment Curriculum & Goals

Base Camp: Approximately 40 days.

Students earn beads as rights of passage as they complete different stages and progress towards a transition to campus. Goals include decreasing hopelessness, building trust, increasing honesty, displaying cooperation, understanding school rules, recognizing importance of self-care, reestablishing communication with family through letter writing. Methods include: The writing of a Truth Letter and a Feelings Letter to the family, completing growth workbook, passing water intake checks, learning survival skills.

Main Campus:

Stage 1: Month 2-3

Students self-assess the appropriate academic placement and discover what cognitive, emotional, and social deficits may impair their education. Goals include releasing anger and overcoming blame, compliance with agreements, increasing concern over personal health, developing leadership skills, direct communication with family, increasing confidence in academic endeavors. Methods include: weekly phone calls home, adhering to the dress code, taking on roles such as cleaning crew leaders.

Social Seminar on Communication
Academic Seminar on Learning Styles
Cognitive Seminar on Transformation and Agreements
Emotive Seminar on Trust, Hopes, and Doubts
Family Resolution on Character Traits – Parents Visit Campus
Life Step One on Personal Regrets

Stage 2: Month 4-6

Goals include the expansion of relationships, understanding how behaviors effect others, mastery of individual fears and insecurities, understanding the family as a system, increasing responsibility for health, understanding learning differences, cultivation optimism through success. Methods include: developing a fitness plan, earning reward trips, leaving campus with family.

Social Seminar on Risk Behaviors
Academic Seminar on Learning Strategies
Cognitive Seminar on New Priorities and Commitments
Emotive Seminar on Joys and Sorrows
Family Resolution on Family / Peer Relationships – Family Reunites for 3 Days at Hotel
Life Step Two on Friendship

Stage 3: Month 7-9

Goals include developing a sense of identity, increasing hope, increasing accountability for academics, initiating post-ASR plans, begin to integrate ASR values with personal values, learn realistic goal setting, reestablishing of healthy relationships from the past. Methods include: developing a post-ASR contract, traveling home, selection of academic electives.

Social Seminar on Sexual Boundaries
Academic Seminar on Higher Education
Cognitive Seminar on Options and Modifications
Emotive Seminar on Identity and Roles
Family Resolution on Expectations – Student Spends Five Days at Home
Life Step Three on True Self

Stage 4: Month 10-13

Goals include learning forgiveness and acceptance, understanding the symbiotic nature of relationships, developing leadership, accepting family, and recognizing the importance of planning. Methods include: Tribal sweat purification ritual, preparation for Costa Rica travel, requesting people to confront in mixed groups, volunteering, serving as a role model for younger students, serving as a dorm head.

Social Seminar on Community Tolerance
Academic Seminar on Life Learning
Cognitive Seminar on Healthy Relationships and Balance
Emotive Seminar on Internalization and Projection
Family Resolution on Liberations – Student Spends Seven Days at Home
Life Step Four on Grace and Forgiveness (Sweat Lodge)

Costa Rica Service Learning Project: Month 12-13

Goals include increasing self-confidence and self-reliance in problem solving, understanding how culture affects beliefs and perceptions, increasing spiritual appreciation, discovery of own values, dispel guilt, identify independent/dependent/interdependent behaviors within the family, integration of academic, personal, social, and emotion identity. Methods include: rain forest investigation, gaining competence in Spanish language, community service assignments, and home stay with Costa Rican family.

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