

IS THE BEHAVIORAL PROGRESS MADE AT JRC
SUSTAINABLE AND GENERALIZEABLE?
A FOLLOW UP STUDY OF FORMER JRC STUDENTS.

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This study examines the post-treatment outcomes of 44 former students of the Judge Rotenberg Educational Center (JRC), a residential care facility that employs a highly consistent application of behavioral treatment and educational programming. The students were evaluated approximately 1.7 years (range 0.17 to 4 years) after leaving JRC, using both a subjective General Life Adjustment rating (performed by guardians and former students) and objective counts of certain Quality of Life Indicators. This group of students showed marked improvement on the measures employed over their status prior to enrolling in JRC.

Introduction

Examining post-treatment patient or student outcomes for the users of residential care facilities remains an important aspect in assessing the long-term durability of the treatment students receive while in the care of the facility, as well as the generalizability of treatment effects to natural environments. The participants in this study consisted of former students of the Judge Rotenberg Educational Center (JRC). JRC operates day and residential programs for children and adults with behavior problems, including conduct disorders, emotional problems, brain injury or psychosis, autism and developmental disabilities. This study is part of JRC's ongoing efforts to assess the effectiveness of treatment after students have left the program.

The basic underlying approach taken in all of JRC's programs is the use of behavioral psychology and its various technological applications, such as

behavioral education, programmed instruction, precision teaching, behavior modification, and behavior therapy and counseling. From JRC's inception, its philosophy has always included the following principles: a willingness to accept students with the most difficult behavioral problems and a refusal to reject or expel any student because of the difficulty of his or her presenting behaviors; the use of a highly structured, consistent application of behavioral psychology to both the education and treatment of its students; a minimization of the use of psychotropic medication; and the use of a full range of effective behavioral education and treatment procedures, including supplementary aversives if needed.¹

As a result of JRC's zero-rejection admissions policy, students who attend JRC have included some of the most challenging and difficult students in the nation. A typical JRC student comes into the facility taking one or more psychotropic medications,² has been suspended and/or expelled from a variety of school settings, has extremely poor interpersonal relationships with others (including family members), and is likely on a trajectory to end up in a psychiatric hospital or prison (in fact, many students have a history of psychiatric hospitalizations prior to admission and some have been referred to JRC from a prison setting).

Method

Participants

The participants consisted of 44 former students of the Judge Rotenberg Educational Center (JRC). Out of an initial pool of 591 former students, 154 were selected to be called for data collection. The criteria for the selection of the 154 former students included: a.) they had attended JRC for at least 5 months; b.) they had been discharged from JRC; c.) they were still alive with valid contact information available; d.) they had not previously indicated a desire not to participate in previous editions of this study. All together, data was successfully collected for 28.6% of the selected sample.

¹ Additional information is available from JRC's website at www.judgerc.org.

² Of those students admitted to JRC during the past 5 years who were still enrolled at the time of this writing, 85% were taking at least one psychotropic medication prior to enrolling in JRC; of those currently enrolled at JRC, only 3% continue to receive psychotropic medication.

All of the former students included in this study (i.e., the 44 for whom data was collected) had received comprehensive behavioral treatment during their tenure at JRC. For 30 of these former students (68%), treatment had consisted of positive-only programming. For 14 of these former students (32%), treatment had consisted of positive programming supplemented with contingent aversives in the form of a brief skin shock generated by the Graduated Electronic Decelerator (GED) device³. Please see Figure 1.

Method

Once potential participants were identified using the selection criteria described above, the legal guardian of the participant, or the former student himself or herself, was contacted via telephone by a JRC staff member. During a telephone interview, the respondents were asked a set of questions from a structured questionnaire, which included questions regarding current dimensions of general life functioning: psychiatric hospitalizations; psychotropic medications; legal involvement; daytime activities and employment status; educational activities; and recreational activities. Guardians were also asked to provide a general narrative and comments regarding the former students' performance and to provide a rating of their general life adjustment based upon a 5-point Likert-type scale (with 1-very poor, 2-below average/not good, 3-fair, 4-good, and 5-exceptional). These ratings were provided both for present life adjustment and for life adjustment prior to receiving treatment at JRC.

³ The GED is a remote-controlled skin-shock device which delivers brief, mild electrical stimulation to the surface of the skin. The reader is referred to www.effectivetreatment.org/remote.html for a detailed paper regarding the development and characteristics of the GED. Additionally, a case study documenting the effectiveness of positive programming supplemented with contingent aversives in the form of the GED can be found at www.effectivetreatment.org/treat.html.

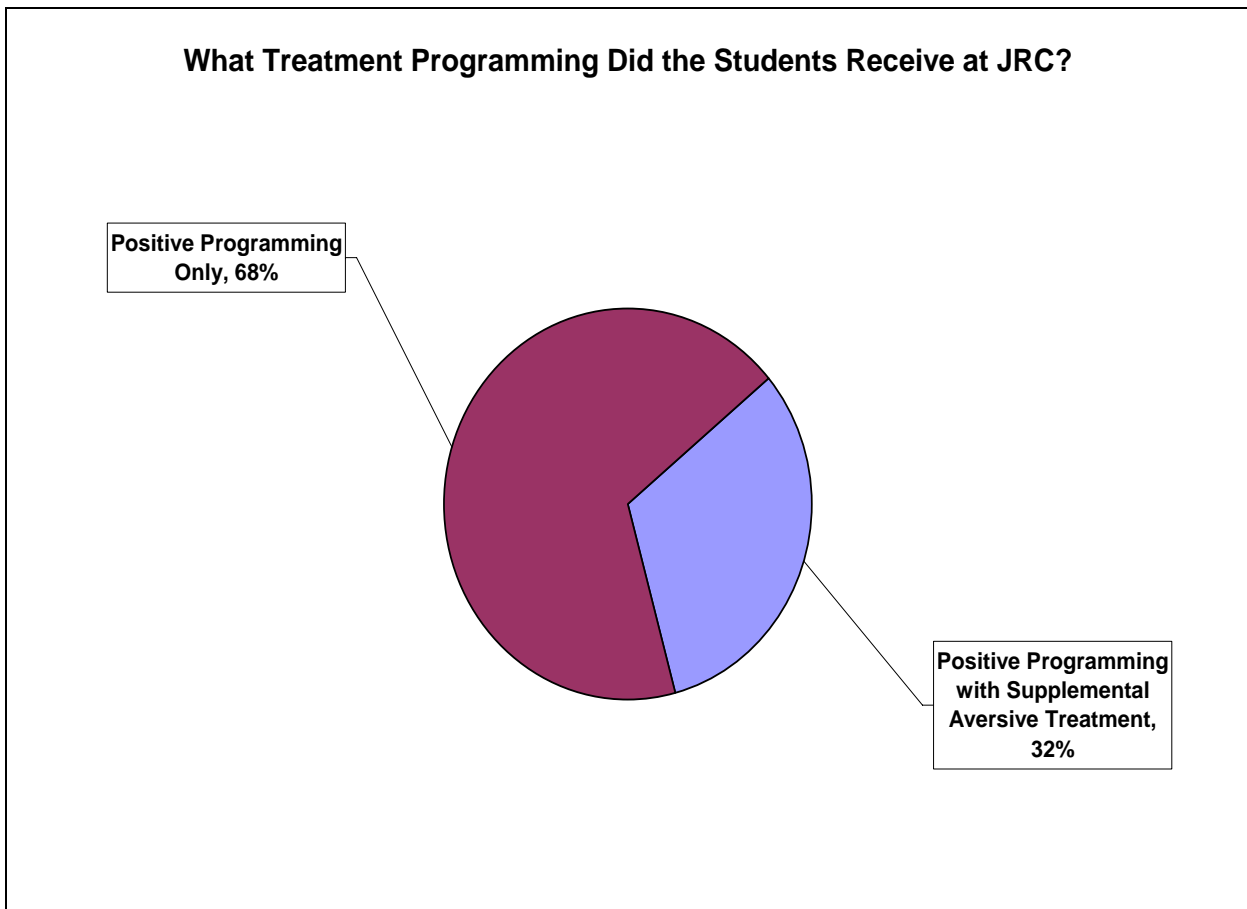


Figure 1.

Results

From an initial total pool of 154 potential participants, 44 (28.6%) parent/guardians or former students were successfully contacted. As has been the case with the previous JRC follow up studies, the sole reason for inability to contact participants was a lack of current contact information despite consistent efforts to maintain contact and obtain current contact information (e.g., repeated phone contacts, searches of information databases such as 411 or Whitepages, etc.).

The mean age of the former students (i.e., at the time of this investigation) was 20.75 years (range 13.5 - 26.9). The mean length of stay at JRC was 2.9 years (range .4 - 8.3). The mean time since discharge from JRC was 1.7 years (range .2 to 4). The reporter was a parent (either by birth or adoption) in 27 (61%) of the cases and the participant them self in 14 (32%) of the cases (see figure 2).

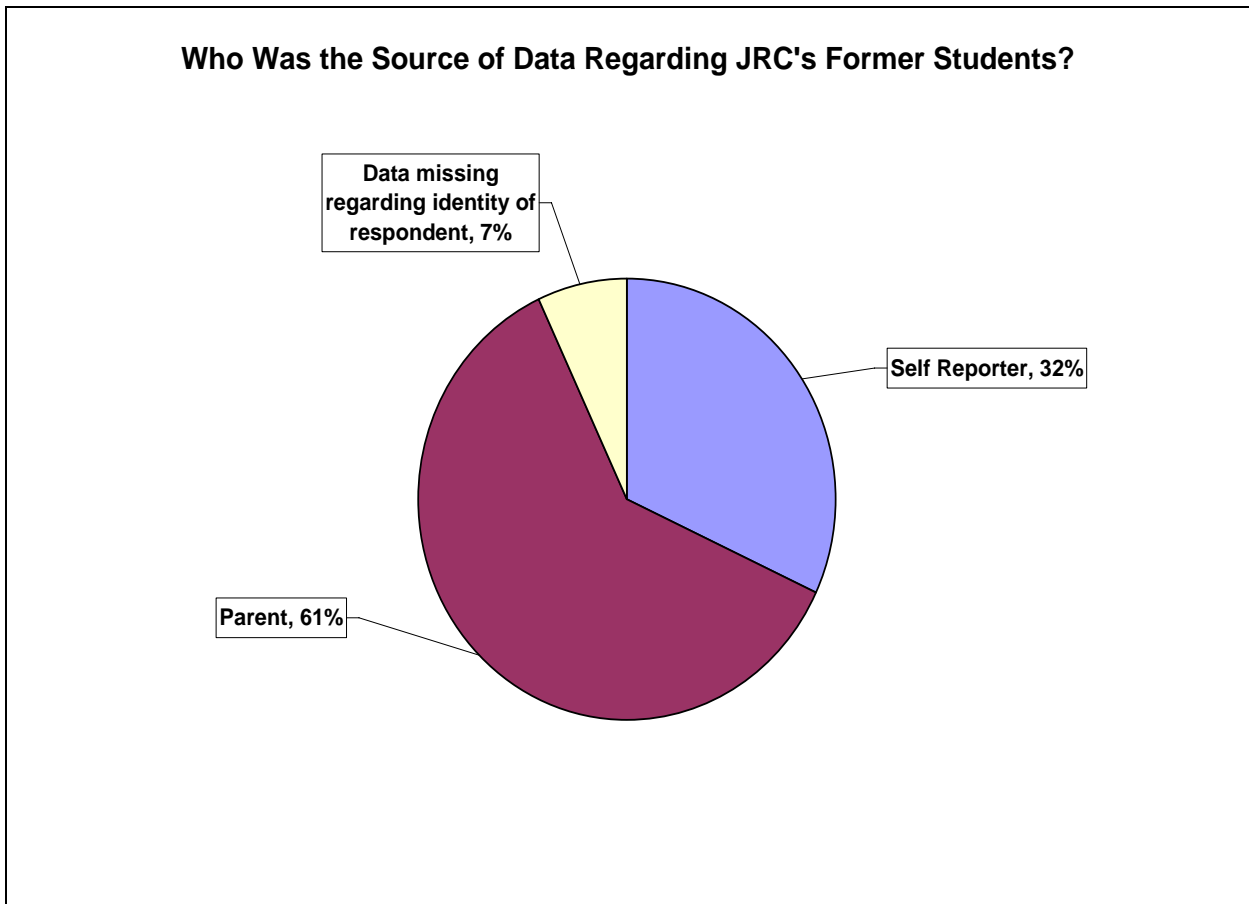


Figure 2.

Living/Residential Situation

Where are former JRC students living? The comparison of each former student's living situation following his/her treatment at JRC shows (see Figure 3) that there was only a small portion of the former students that required placements outside of their home. That is, 77% of the former students were either living independently on their own (23%) or successfully living in their family's residence (54%). Of the remaining former students, 18% were in less restrictive residential placements (i.e., the former student's behavior has been safe enough to allow him or her to reside in a less restrictive placement), and 2% (i.e. one individual) were in jail.

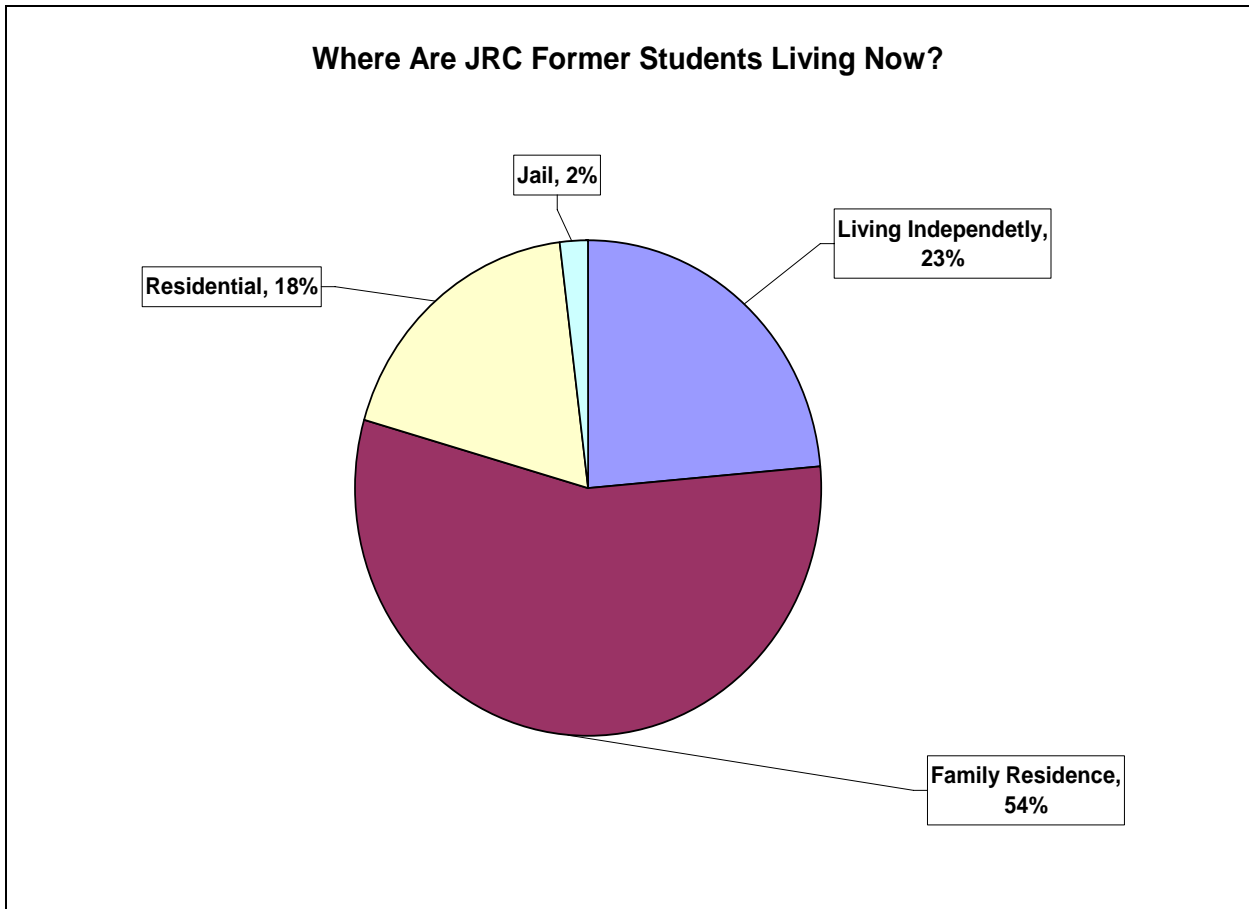


Figure 3.

Treatment

What are the ongoing treatment needs of students after leaving JRC? As is shown in Figure 4, 7% of the former students (i.e. 3 individuals) required at least one psychiatric hospitalization and 33% utilized outpatient counseling, therapy, or psychiatric consultation. Sixty-three percent of the former students no longer needed nor utilized any ongoing treatment resources at the time of the study.

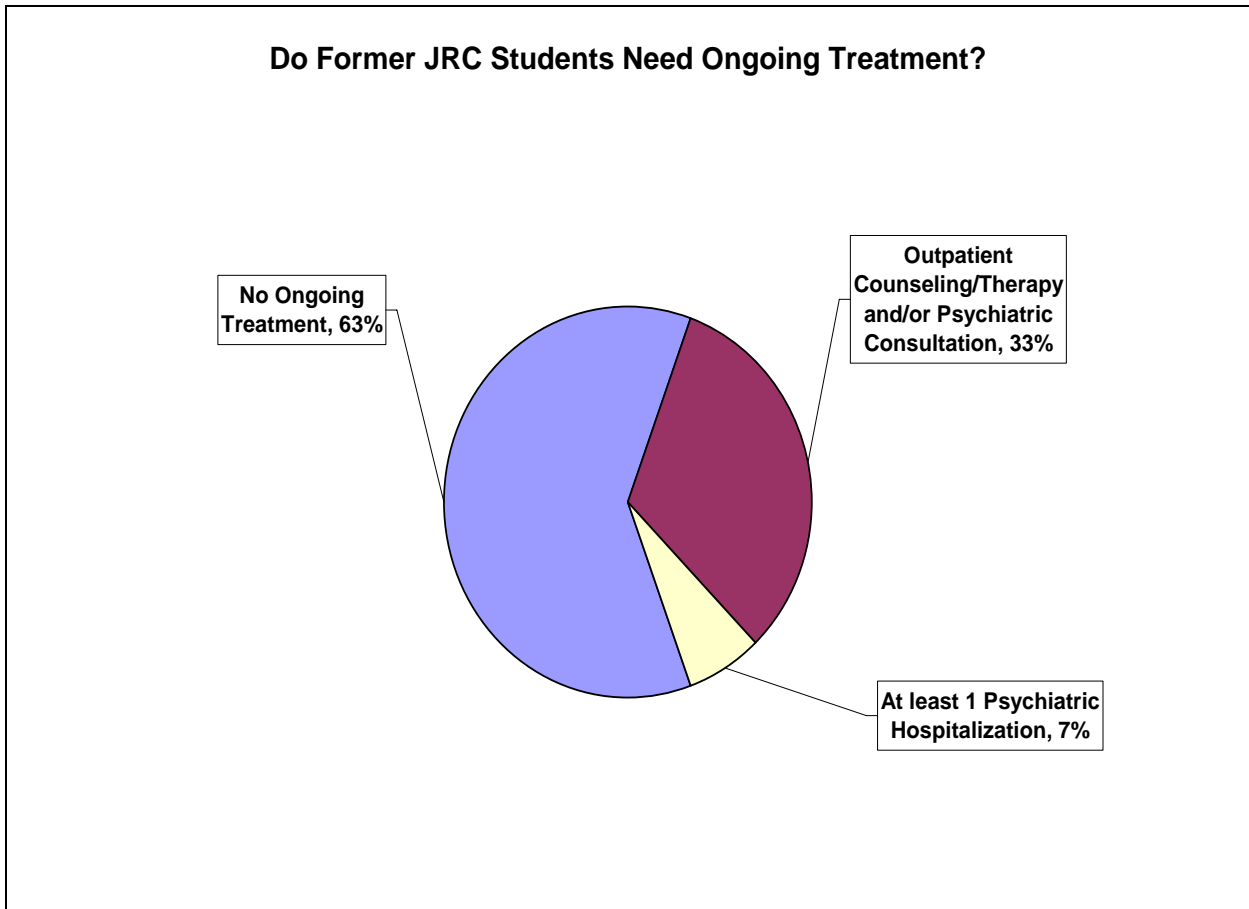


Figure 4.

Psychotropic Medications

Is there a continuing need for the use of medications following JRC treatment? As is shown in Figure 5, 20% of former students had been restarted on psychotropic medications since discharge (compared to 85% at the time of JRC admission). Conversely, 79% of the former students were free of any psychotropic medications at the time of follow up.

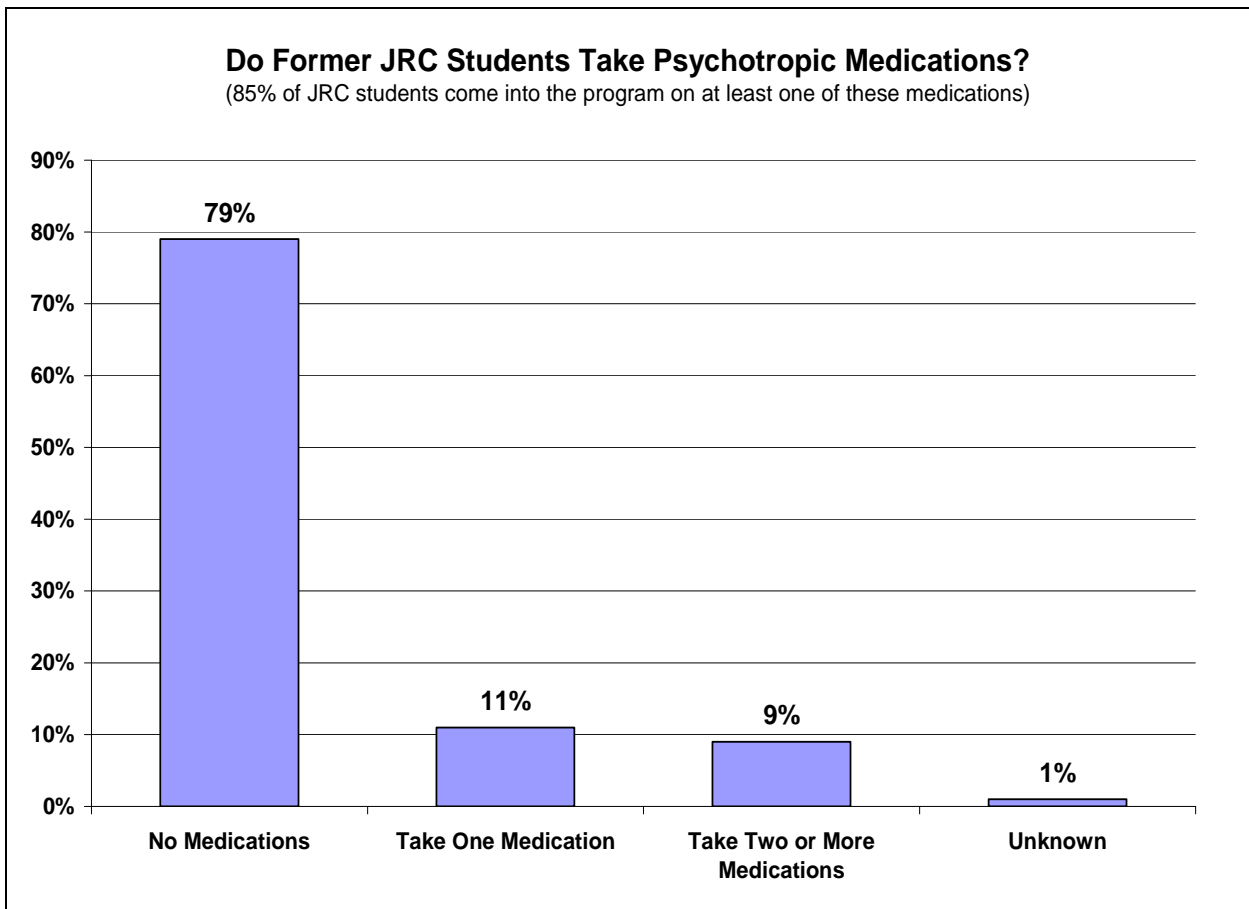


Figure 5.

Education

What impact does JRC’s program have on educational functioning? Although, as is shown in Figure 6, the number of students receiving no educational services is a sizable minority of the sample (43%); some of these students have aged out of the educational system and have not pursued further education. There are also a number of students that have successfully continued their education beyond JRC. Currently, 30% of the former students are in public or traditional school settings and 9% are pursuing college, vocational, or professional training. Some (18%) of the former students have continued to receive residential or special educational services (i.e., in less restrictive settings reflecting the improved safety of their behavior).

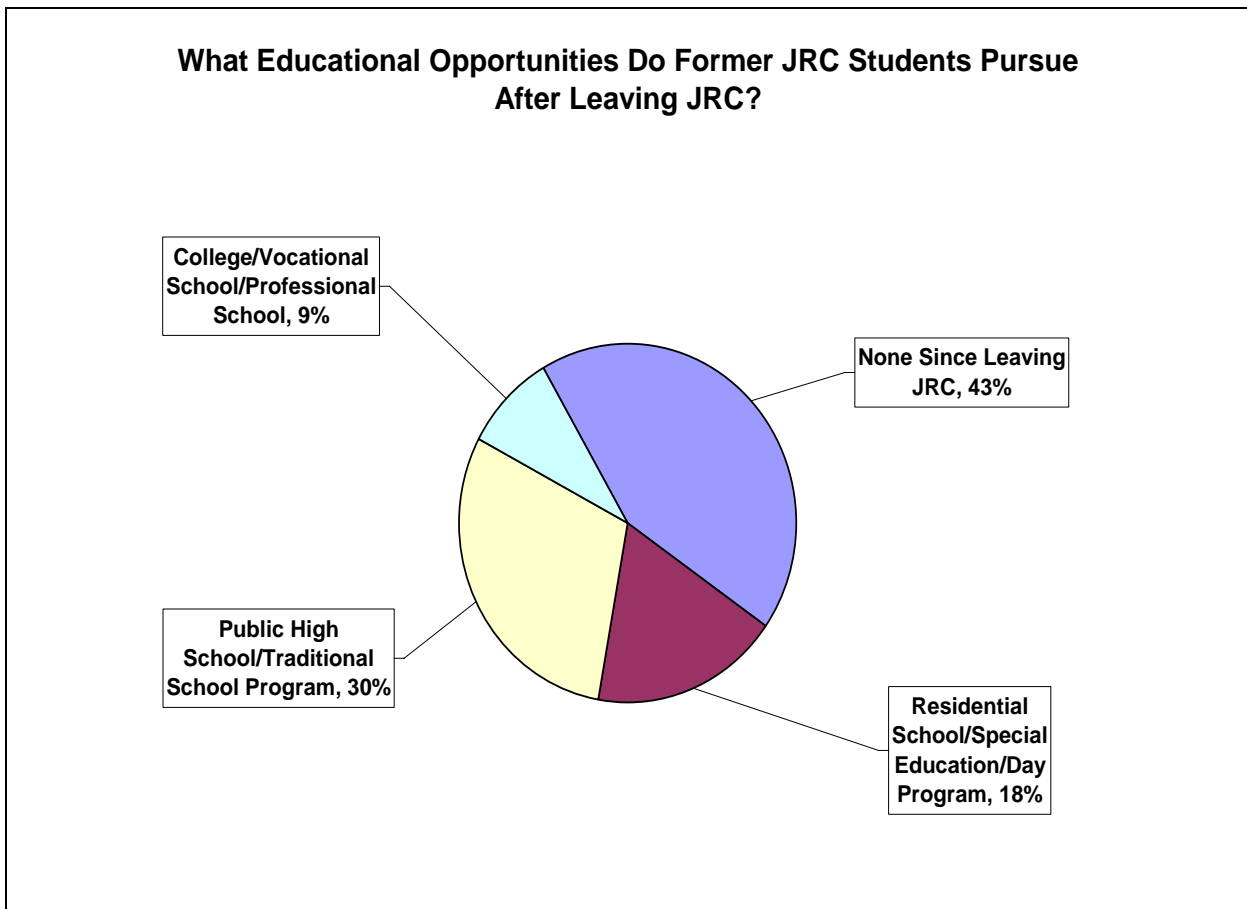


Figure 6.

Employment

Fifty-one percent of the former students are not currently employed (see Figure 7). Part of this can be explained by the age of the former student. That is, it is not necessarily reasonable to expect school-age individuals to be working. Also, many of JRC's former students have developmental or physical disabilities that might limit their employability. Furthermore, three of the former students reported that they were stay-at-home parents. Although most of JRC's students enter the program demonstrating behaviors that would prevent them from maintaining gainful employment, of the remaining former students included in this study, 9% were employed within vocational training/workshop program settings and 40% were employed in non-supported settings.

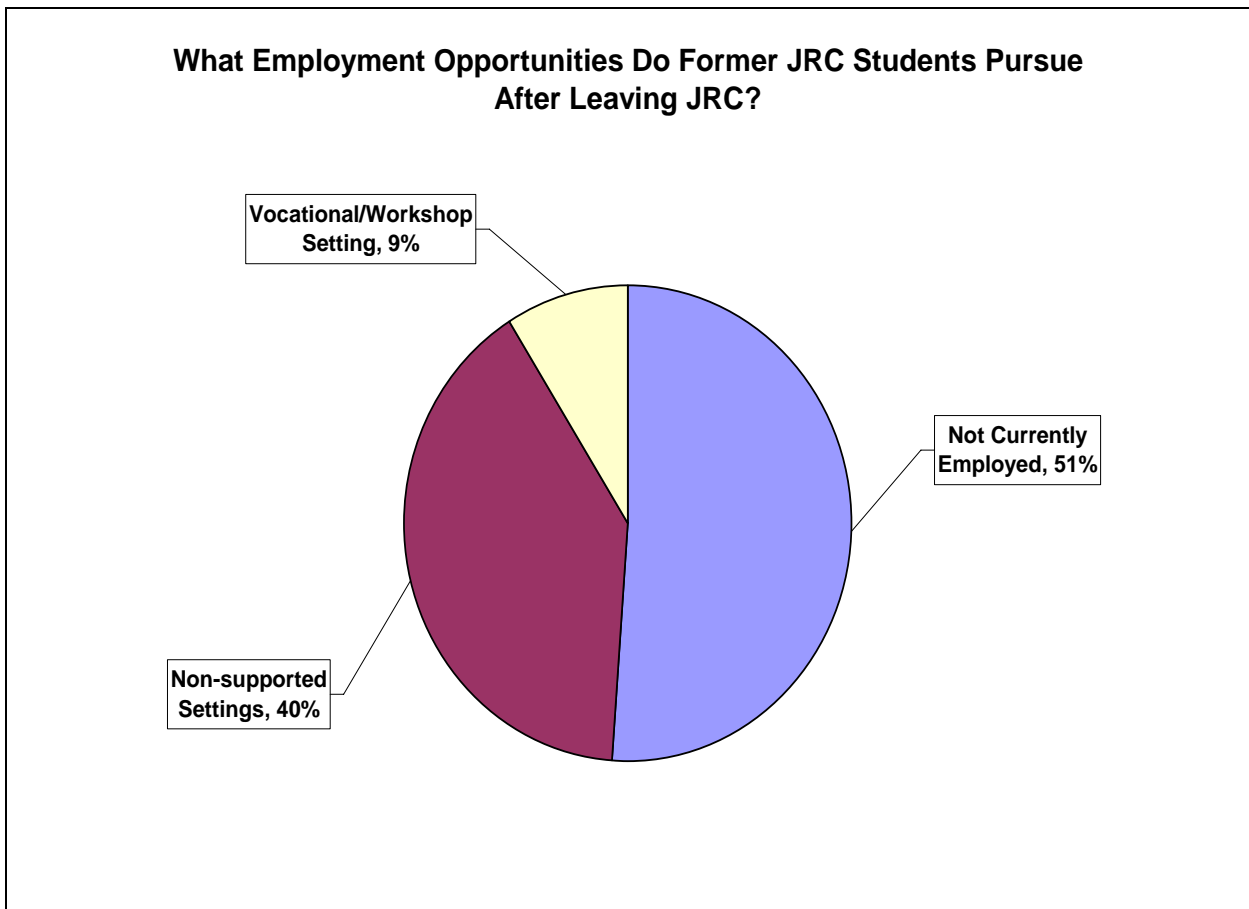


Figure 7.

Recreation

The former students reported a wide range of interests and hobbies including: watching movies and television; playing sports; attending church; shopping; spending time with peers; going out to eat; activities with their children (e.g., going to the park, zoo or playground); going on family vacations; art work; going for walks; spending time with their families; using computers/browsing the internet; going to museums; working on cars; participating in school activities; choir; dance classes; drama classes; listening to music; going to the gym; bowling and playing bingo. As is discussed in the two sections below, prior to enrolling in JRC, the demonstration of inappropriate behaviors interfered with functioning in all aspects of their daily life, including the ability to engage in

recreational activities. It appears that the former students continue to engage in a wide range of recreational activities in their personal life.

Relationships

This area of functioning is typically difficult to quantify. There may be a bias toward reporting the more troublesome aspects of relationships than the positive aspects. When asked directly about meaningful relationships and dating, 58% reported that they were either married, in a long-term relationship, or consistently dating (see Figure 8). This statistic is remarkable in that it was these very close relationships that the typical JRC student was unable to enjoy prior to enrollment at JRC due to the extreme disruptiveness of their inappropriate behaviors. A further 24% reported some enjoyable casual friendships or family relationships. Only approximately 16% reported a severe lack of ability to enjoy, or lack of effort to build, interpersonal relationships. As is shown in Figure 9, about 16% of the former students continued to have interpersonal/social problems to the point that law enforcement was required to intercede. The majority of former students managed to engage in socially appropriate behavior such that no intercession by law enforcement was required.

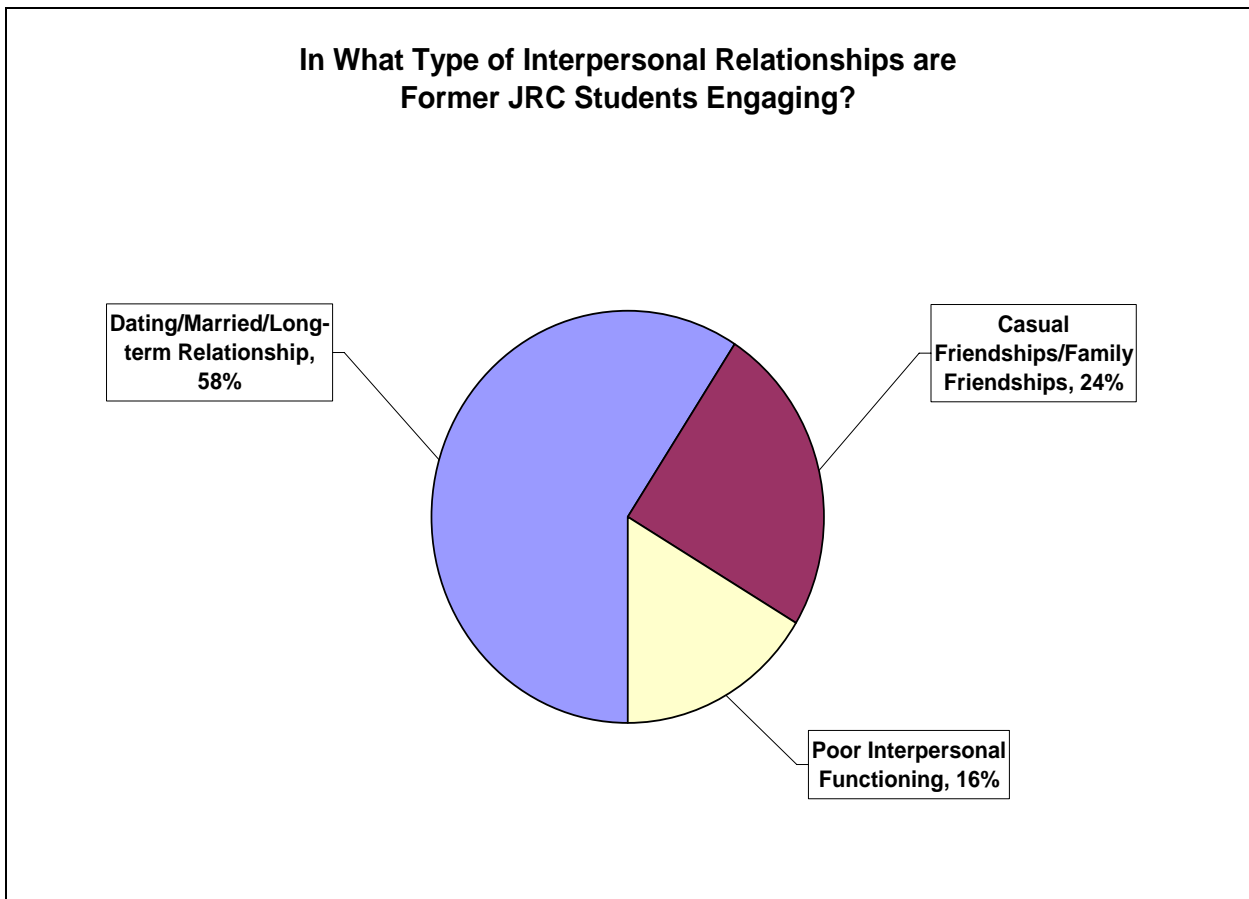


Figure 8.

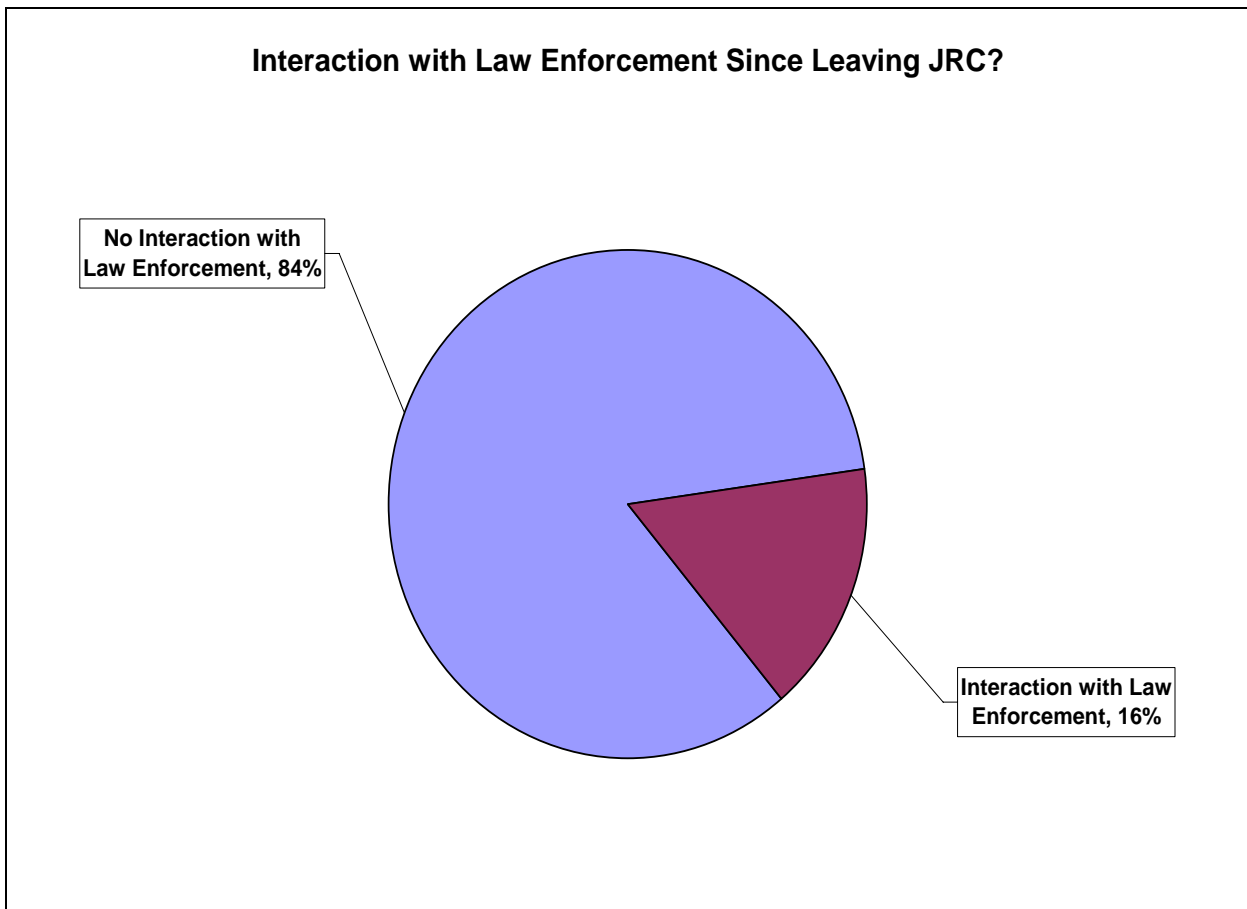


Figure 9.

General Life Adjustment Rating

See Figure 10 for comparisons of mean before and after JRC general life adjustment (GLA) ratings (by former student or parent). These subjective ratings are vulnerable to a number of reporting biases, but do reflect a genuine perception of the respondents that the participant's overall level of functioning has continued at an improved level since discharge from JRC.

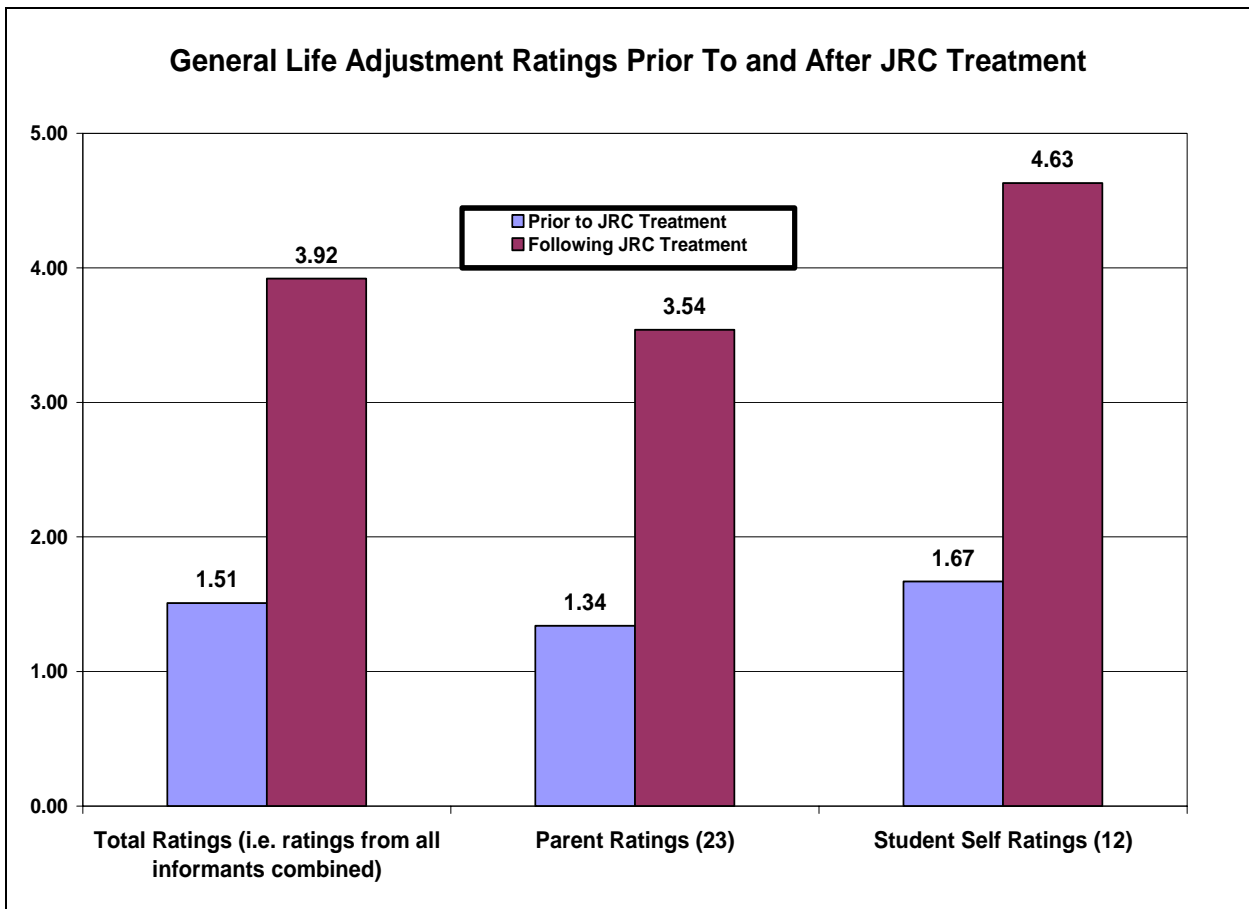


Figure 10.

Discussion

The results of this investigation indicate that former students of JRC demonstrated marked improvement in their life adjustment and quality of life following treatment. These findings are consistent with follow-up studies from previous years.

The marked improvement, as indicated by the data for these former students, serves as evidence that not only have indicators for quality of life ostensibly improved since starting treatment at JRC, but that this improved functioning has continued for as long as 4 years after the former student was discharged from JRC. After leaving JRC, students from this study transitioned back home, to another less restrictive residential program, or to a day educational/vocational program. Some of these students started full or part time jobs and some pursued further (post-secondary) education. For others, to be able to safely return home

and have relatively normal family and peer relationship is an indicator of treatment success.

Limitations of the current study include an absence of formal/reliable data (beyond retrospective informant report) of the student's functioning prior to admission. Rather, prototypical admission status is often referred to in this study as a comparison for current post-treatment functioning. Further, as with previous follow-up studies conducted at JRC, there was relatively high attrition due to the inability to locate current contact information for a significant number (71.4%) of the initially selected participant pool. The ability to successfully contact the guardians of former students remains a significant aspect in assessing the long-term treatment effects of residential programs. Maintaining more frequent on-going contact with guardians of former students, as well as the former students themselves, may increase the ability to track the follow-up progress of more students in the future.

Suggested areas of improvement that might be considered to enhance future follow-up studies of residential care include the following additions: (1) a standardized symptom or behavioral checklist administered at pre-admission, at discharge, and at specified periods post-discharge; (2) a control group consisting of students accepted into the facility, but not attending; (3) an examination of the relationship of pre-admission variables (e.g., number of previous placements, intellectual functioning, and prior adjudication) to post-treatment outcomes; (4) an examination of the relationship of other variables (such as time since discharge, length of stay, reason for discharge, etc.) to post-treatment outcomes; and (5) further examination of ratings in terms of statistical significance as technologically quantifiable.

In conclusion, although there were several factors that limited the generalizability and significance of the findings, the results indicate that former students of the Judge Rotenberg Educational Center showed substantial overall improvement as measured by the indicators of quality of life as used in this study.