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Treatment progress of foster care adolescents with severe behavioral problems: Factors conditioning their performance in the residential treatment centers

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Abstract

Background. Behavioral problems are a recurring issue in the child welfare system population. Normative residential centers do not have the characteristics to address the specific needs of these adolescents, so they are usually treated at therapeutic residential centers. In Catalonia (Spain), these cases are treated in Intensive Educational Residential Centers (CREI), a variant of Therapeutic Residential Care (TRC) facilities.

Objective. This exploratory study seeks to understand the treatment progress of adolescents with severe behavioral problems who were placed in the CREIs, a variant of TRC facilities.

Participants. Data from 206 cases, the totality of population under treatment in the CREIs, was collected using a questionnaire administered to the treating team.

Method. A cross-sectional design was used, applying quantitative methods to analyze the incidence and interrelation of a series of variables related to the progress of adolescents in the CREIs.

Results. Significant differences among profiles by sex, place of origin, criminal offences, substance abuse, and mental health disorders were found. Furthermore, adolescents who performed a positive treatment progress according to the professional staff, arrived at the CREI at an earlier age, and had longer stays, than the group with an unremarkable progress. Logistic regression indicated that duration of stay in the center and runaways predict the adolescents' treatment progress.

Conclusions. This treatment is working well with the milder cases; however, it does not tend to be successful for adolescents with greater difficulties. It is recommended that interventions focus on factors that engage the adolescents in their own rehabilitation process, include substance abuse programs and consider the gender perspective.

KEYWORDS

difficult behavior, therapeutic social work, adolescents, residential care, sex differences

1. INTRODUCTION

The present exploratory research focuses on the Intensive Educational Residential Centers (CREIs) of Catalonia, a variant of the therapeutic residential care (TRC) facilities that specialize in therapeutic interventions with adolescents who present with serious behavioral disorders, using a socio-educational and therapeutic approach. Most of the adolescents with behavioral problems are, therefore, treated in these centers, and only those with severe mental health problems or severe addictions are treated in the classic model of therapeutic residential centers.

Behavioral problems are a recurring issue in a considerable part of the population in the child welfare system (Bronsard et al., 2016; Greiner & Beal, 2017; Keller, Salazar, & Courtney, 2010). Normative residential centers do not have the necessary characteristics or resources to address the specific psychoeducational needs of adolescents with such issues. To respond to these needs, the CREI were created to offer an intensive but normalizing psychoeducational intervention of limited duration to adolescents under the guardianship of the administration, who exhibited behavioral problems but did not present with serious health and/or mental health disorders that require permanent supervision by clinical staff. These centers, located in Catalonia, differ from other specialized residential facilities, where severe drug addiction and physical or psychic disabilities are treated.

The present research was carried out in collaboration with the Catalan Child Welfare Department (*Direcció General d'Atenció a la Infància i Adolescència - DGAIA*). The characteristics of the adolescents receiving treatment along with the factors that influenced their progress throughout the intervention program at a CREI facility were investigated.

In the child welfare system of Catalonia, in July 2019, there were a total of 9.717 children and adolescents (aged 0-18 years) under protection. Of these cases, 60.5% were at a residential center, 38.0% were family-fostered (external, relatives, or pre-adoptive) and 1.5% had other measures. Among the cases placed in residential centers, 2.5% resided at CREIs (DGAIA, 2019).

At present, the Catalan child welfare system increasingly houses adolescents with ongoing behavioral problems at residential centres (DGAIA, 2019). Therapeutic Residential Centers and the CREI were designed to work with the most extreme cases of this kind of population.

It must be noted that being an adolescent placed in a residential center within the child welfare system brings a whole host of challenges. With regards to education, these adolescents tend to show low academic success (Maclean, Taylor, & O'Donnell, 2017; Montserrat, Casas, & Malo, 2013; Sala, Villalba, Jariot, & Rodríguez, 2009; Zima et al., 2000); and more behavioral problems at school (Zima et al., 2000). They first engage in sexual intercourse earlier and they are at greater risk of becoming adolescent parents (Svoboda, Shaw, Barth, & Bright, 2012; Zárate Alva, Arnau-Sabatés, & Sala-Roca., 2018). In relation to the workplace, they typically have difficulty finding a stable job (Courtney & Dworsky, 2006; Del Valle, Bravo, Álvarez, & Ferranz, 2008); and tend to have a low level of income (Dworsky, 2005; Naccarato, Brophy, & Courtney, 2010). Foster adolescents are more likely to present mental health issues, behavioral problems,

(Bronsard et al., 2016; Greiner & Beal, 2017; Keller, Salazar, & Courtney, 2010), substance abuse (Siegel, Benbenishty, & Astor, 2016; Traube, James, Zhang, & Landsverk, 2012); and criminal behaviors (Courtney, Piliavin, Grogan-Kaylor, & Nesmith, 2001; Sala, Jariot, Villaba, & Rodríguez, 2009). Some studies have found that boys in care tend to show more externalizing problems, substance abuse and criminal behaviors; while girls usually display more internalizing problems and adolescence motherhood (Attar-Schwartz, 2008; Bravo & del Valle, 2009; Sala et al., 2009).

The factors that exacerbate these behavioral and mental health problems are found to be connected to longer stays in the facility (Bravo & del Valle, 2009; Vinnerljung, Sallnäs, & Berlin, 2017); frequent changes of placement while under protection orders (Aarons et al., 2010; Morrison & Shepherd, 2015; Sala et al., 2009); the social climate in the residential center (Attar-Schwartz, 2008; Sala et al., 2009); emotional problems, (Slaughter, 2017); and the lack of social or family support after the age of 18 (Jones, 2014; Mitchell, Jones, & Renema, 2015).

At an international level, the cases that present with extreme behavioral problems are usually treated at therapeutic residential centers; these have been defined by the *International Work Group on Therapeutic Residential Care* (Whittaker et al., 2016) as follows:

> 'Therapeutic residential care' involves the planful use of a purposefully constructed, multi-dimensional living environment designed to enhance or provide treatment, education, socialization, support, and protection to children and adolescents with identified mental health or behavioral needs in partnership with their families and in collaboration with a full spectrum of community-based formal and informal helping resources (p. 24).

However, in Catalonia, the Administration has chosen to differentiate between specialized facilities that treat substance abuse issues and physical/mental disability, on the one hand, from those treating adolescents with behavioral problems, on the other. Whereas the first are tackled by several residential resources, adolescents with challenging behavioral problems are cared for at the CREIs.

The CREIs, then, are specialized residential centers that host adolescents between the ages of 12 and 18 who present behavioral challenges requiring intensive educational systems. All fall under the guardianship of the Catalan government. These centers aim to provide an educationally oriented response to the specific needs of these adolescents, within a limited period of time, by working to redirect their problems and return them to a more standardized environment. Essentially, a transversal educational intervention is infused in the day-to-day life in the center with a highly structured schedule that helps adolescents to self-regulate. The activities are organized in short periods of time to avoid any adolescents' difficulties in focusing. The whole intervention seeks for adolescents to learn habits and values. However, psychological support is timely and mostly from external professionals. Likewise, the architecture of all the spaces in the center is designed to contribute to this educational work. In addition, the CREIs have the school center within its compound.

There were four CREIs operating in Catalonia – three centers for boys and one for girls – offering a total of 94 beds.

Thus far, there have been no investigations of the CREIs of Catalonia. This is why the Catalan Administration commissioned this study, the purpose of which is to explore the particular profile of adolescents placed in these centers and identify the various elements that may influence their treatment progress. Studying these aspects can thus provide relevant information that facilitates, for stakeholders, a consideration of the rehabilitative program itself and, further, how to adapt it to the specific characteristics and needs of the adolescents assisted.

2. METHOD

2.1. Study design. In this exploratory research, a cross-sectional design (Hernández, Fernández, & Baptista, 2010) was used, applying quantitative methods to describe and analyze the incidence and interrelation of a series of variables related to the treatment progress of adolescents in the CREIs according to the opinion of professional staff across a specific interval of time. It was a nonexperimental design, as the variables were not manipulated and had already occurred in their natural context, given that data was collected retrospectively.

2.2. Sample. The sample was configured by the totality of the population of the CREIs who had left care within the 3-year period prior to start of the study. The time interval of 3 years was set with consideration of the fact that informants were the staff members who had worked with those adolescents. Therefore, we had to rely on their own memories and internal reports, sometimes extending back several years, to respond to questions. Altogether, it was felt that trying to gather older information could bring a bias. It was not possible to have input from the adolescents constituting the sample as, when they exit the CREI -and therefore the care system-, their file is closed and no contact details are available.

Altogether, 206 cases (182 boys and 24 girls) aged between 12 and 18 were analyzed. Table 1 summarizes the sample characteristics.

2.3. Instruments. To collect information a questionnaire was created. It sought to gather data on each adolescent such as: profile at entry; substance abuse; criminal offences; treatment progress during their stay at the CREI; runaways while under treatment; and the process of discharge and subsequent place of residence. Five experts validated the instrument.

2.4. Procedure. The treating team members at each center were asked to complete the questionnaires for all cases that had been discharged from the CREI facility within the mentioned 3-year interval. The questionnaires were completed based on the center's records and the informants' memories. Therefore, it was specifically requested that the respondents would have treated the cases they responded for.

One of the centers could only provide information of 27 months because it was newly created, and the process was conditioned by the operating time. To guarantee the anonymity of the participants, the informants assigned a code to each case.

The methodology of the study was approved by the Ethics Committee of the Autonomous University of Barcelona (CEEAH) and meets the ethical principles and respect for the rights of the participants (file number 2360). The Catalan Children Welfare Department (Direcció General d'Atenció a la Infància i Adolescència - DGAIA) also authorized the research.

2.5. Analysis of the information. A matrix was created with the gathered data; it was then analyzed using descriptive and inferential statistical techniques (Chi square, T-test, and logistic regression). The characteristics of the adolescents and the factors that could explain a positive treatment progress or an unremarkable progress while in the CREI were analyzed.

The findings were presented, triangulated, and discussed with all the stakeholders. Firstly, the results were returned to each CREI and the credibility of the findings, the possible underlying factors that could explain the results, and the practical significations were discussed. Secondly, a meeting was held with the center's administrative and educational staff to discuss possible implications for welfare policies. Finally, a technical seminar was organized for all the professionals, technicians, and police force of the Catalan government.

3. RESULTS

3.1. Characteristics of the adolescents in the sample. Table 1 summarizes the main characteristics of the young boys and girls in the sample. It is remarkable that more than half the adolescents had substance abuse issues, had committed criminal offences; and had some form of mental health disorder. The more represented disorders were the group of disruptive, impulse-control, and conduct disorders (32%) per the *Diagnostic and statistical manual* (5th ed; American Psychiatric Association, 2013) and, to a lesser degree, cognitive deficit (19.4%).

There was a high turnover of slots per year in the centers. On average, 18 adolescents per center and year were discharged, which represents an annual renewal of 73% of the attended cases.

Table 1. Salient characteristics of the sample

DESCRIPTION OF THE SAMPLE	
N total	206 cases
Sex	11.7% of girls 88.3% of boys
Substance abuse	73.3% known to have substance abuse
Criminal offences	59.8% known to have criminal offences
Mental health disorders	56.6% with diagnosed mental health disorders
PROFILE AT ENTRY	
Age of entry	15.5 as mean age at entry; *SD*=1.45 11.2 years old the youngest to enter

	17.9 years old the oldest to enter
Place of origin	20.3% from their family home 73.1% from other residential centers 6.5% from educational centers of the Justice Department
STAY AT THE CREI	
Time treated at the CREI	Mean duration of stay 14.5 months; *SD* = 11.9 30.1% stayed 0–6 months 41.3% stayed 7–18 months 28.6% stayed 19 months or more
Runaway tendency during their stay	63.1% ran away from the CREI at least once
Treatment progress of the adolescents in the CREI – professionals' opinion	47.1% positive outcome 8.3% positive outcome at the beginning but finishing the process with a setback 44.7% no remarkable improvement
DEPARTURE FROM THE CENTER	
Age of departure	16.7 as mean age of departure; *SD* = 1.15 13.4 years old the youngest to leave 18.4 years old the oldest to leave
Main reason to leave	41.3% lost their place after running away 18.9% reached the legal age 16.0% transfer to other residential resources 12.6% made a positive treatment progress and achieved their educational objectives 10.7% went back to their families after reestablishing guardianship rights 0.5% other
Placement after CREI	34.0% returned to family home 23.3% unknown placement 15.5% went to a residential center 13.6% to educational centers of the Juvenile Justice Department 8.3% transferred to another CREI or to therapeutic residential centers 5.3% to temporary protected flats

Note. CREI = Intensive Educational Residential Centers; SD = Standard Deviation

3.2. Differences among profiles. In the analytic process, the data was examined to determine whether there existed any different profiles by sex, place of origin, criminal activity, substance abuse, and diagnosed mental health conditions. The identified profiles are as follows.

3.2.1. Differences by sex. Since there was a small number of girls in the sample, non-parametric tests were used for the analysis of this section. As it can be seen in Table 2, the strongest statistical differences between boys and girls were found to be that more girls had frequent substance abuse and less diagnosed disorders, stayed less time at the CREI on average, ran away more during their stay, and exited the CREI at a younger age. Also notable is that there were more girls than boys who, after leaving the CREI, had an unknown place of residence. On the other hand, boys outstand for the place of living after finishing their process in the CREI. Mostly they returned to their family; were transferred to other residential settings within the welfare system as they were minors; ended up in educational facilities of the Juvenile Justice Department; or went to a temporary protected flat.

3.2.2. Differences by place of origin. The significant differences between adolescents regarding the most common places of origin (family home, residential centers, justice centers) were also explored. We did not include other places because there were not enough cases.

As Table 2 shows, adolescents who came from Juvenile Justice centers arrived at an older age and spent less time at the CREI than the other two groups (family home and residential centers). A higher number of these cases lost their place at the CREI after running away (69.2% vs. family home = 35 % – residential centers = 39.6%; p = .021), had a higher tendency to return to juvenile justice education centers (30.8% vs. family home = 12.5% – residential centers = 11.8%; p =.014) or had an unknown destination after a runaway from the CREI (38.5% vs. family home = 12.5% – residential centers = 24.3%; p = .014).

In contrast, those who came from family homes and residential centers were more likely to return with the family after, on average, longer stays in the CREI (60% and 30%; p = .014).

Variables	Mean age of entry (years)	From family home (%)	From residential center (%)	From juvenile justice ed. center (%)	Substance use (%)	No substance use (%)	Criminal offences (%)	No criminal offences (%)	Mental health disease (%)	No mental health disease (%)	Duration of stay (months)	Runaway (%)	No runaway (%)	Positive progress (%)	Unremarkable progress (%)	First positive progress and setback afterwards (%)
Place of origin																
From family home	15.0*	-	-	-	70.0	30.0	50.0	50.0	59.5	40.5	17.8*	55.0	45.0	57.5	27.5	15.0
From residential center	15.5*	-	-	-	77.1	22.9	64.6	35.4	57.6	42.4	14.6*	65.3	34.7	46.5	46.5	6.9
From juvenile justice educational center	16.3*	-	-	-	69.2	30.8	76.9	23.1	41.7	58.3	7.1*	69.2	30.8	30.8	61.5	7.7
Substance use																
Substance use	15.5*	18.9	75	6.1	-	-	74.6	25.4	48.8**	51.2**	13.8	68.2*	31.8*	41.7*	41.7*	10.6*
No substance use	15.3*	24.5	67.3	8.2	-	-	23.6	76.4	76.0**	24.0**	16.2	49.1*	50.9*	61.8*	36.4*	1.8*
Criminal record																
Criminal offences	15.7*	17.9	73.2	8.9	88.5***	11.5***	-	-	52.1*	47.9*	13.9	72.6***	27.4***	38.1**	50.4**	11.5**
No criminal offences	15.1*	29.4	66.2	4.4	44.7***	55.3***	-	-	69.2*	30.8*	16.5	42.1***	57.9***	64.5**	31.6**	3.9**

Mental health disease																
Mental health disease	15.3	23.2	71.6	5.3	61.6**	38.4**	52.1**	47.9*	-	-	15.2	65.7	34.3	44.4	44.4	11.1
No mental health disease	15.6	20.8	69.4	9.7	84.2**	15.8**	69.2**	30.8*	-	-	13.9	64.5	35.5	48.7	47.4	3.9

Table 2. Characteristics of the different adolescents' profiles

Note. Levels of statistical significance: * *p<.05*; ** *p<.005*; *** *p<.0005*

3.2.3.*Differences by criminal offences.* As with those cases that came from Juvenile Justice education centers, the adolescents who had committed offences, regardless of their place of origin, arrived at the CREI half a year older, on average, than those without any criminal activity and stayed a shorter period of time. Most had an unremarkable treatment progress and similarly left the CREI, on average, at a higher age than the other group. Besides, it was also statistically significant among the offenders, that there was a higher number of cases with substance abuse and who ran away from the CREI and fewer cases with disorders. Regarding the cause of finishing their stay in the CREI, almost half of the offenders had run away and never returned, and a great percentage ended up residing in educational centers of the Department of Justice or their destination remained unknown.

3.2.4. Differences by substance abuse. As shown in Table 2, statistically significant differences arose among the adolescents depending on whether there existed substance abuse issues or not. A higher number of drug users were found to have committed offences; ran away from the CREI; and, after exiting the center, ended up in Juvenile Justice services or their place of living was unknown. Also, there were fewer substance consumers who had a mental health disorder and who made a positive treatment progress during their stay in the CREI.

3.2.5. Differences by mental health disorder. Comparing the cases with a diagnosis of a mental disorder and those without, it was found that fewer in the first group had committed offences or had substance abuse issues. It was also seen that more boys than girls had mental disorders in the CREIs.

3.3. Factors that explain adolescents' treatment progress. When we asked the staff about the treatment progress of the adolescents, the centers reported that 97 adolescents made a positive progress, 92 made an unremarkable progress, and 17 made a positive progress at the beginning but they finished the process with a setback.

To analyze what variables had an influence in the treatment progress, the two extreme groups were selected: those who made a positive progress, and those who made an unremarkable progress. When we compared these two groups, some differences arose. The ones who made a positive progress arrived at the CREI at a slightly earlier age (M = 15.1 vs M = 15.8; p = .001) and had much longer durations of stay at the center than the group with a nonremarkable progress (M = 20.2 vs M = 8 months; p = .000). With respect to this latter group, the main reasons for exiting the CREI were having reached the legal age (32%; p = .000) and having achieved the objectives set for them (23.7%; p = .000).

On the other hand, focusing on the group that did not evolve remarkably, it was seen that there were a higher number of adolescents with substance abuse (78.3% vs 64.9%; p = .031), who had a criminal record (70.4% vs 46.7%; p = .001) and exited the CREIs mainly after running away and never returning (65.2%; p = .000) or after being transferred to another resource that better suited their needs (17.4%; p = .000).

To assess which variables weighted the most, logistic regressions were carried out. In accordance with the previous analyses, it was found that, from the analyzed set of

variables, those that predicted better the positive vs the nonremarkable progress while at the CREIs were the duration of stay in the center (p = .000) and having run away from it at least once (p = .000). Between the two variables, 43.9% (R square of Cox and Snell) of the observed variability was explained.

4. LIMITATIONS

The present study was an exploratory investigation that paved the way for a greater understanding of the effectiveness of the CREI network of Catalonia and, as well, the characteristics of the adolescents treated therein. In addition to the difficulties inherent in such a task, other limitations of the research can be noted. The first is the inability to have direct input from the adolescents constituting the sample. It was originally planned to interview the adolescents themselves, but it was impossible to reach a significant amount of them as when they leave the CREI and, in most cases, the welfare system closes their file and no further monitoring is made. Therefore, with exception of the sociodemographic data, all information derived was based on the observation/assessment by the professionals who treated them. The fact that the staff were the informants answering our questionnaire after checking the facility's records for each adolescent introduced variability of error in the measurement. Although this variability was likely low or null in specific variables such as the duration of stay, other variables such as 'treatment progress' were a personal estimation subject to the perceptions and beliefs of the staff. Thus, this estimation could be influenced by the passage of time and the subjectivity of the staff's memories, although this variability of error was expected to affect the whole sample equally. To try to minimize these biases, we always required at least, two professionals per center to answer the questionnaires.

The second limitation of this study alludes to the fact that the family background of the treated adolescents was not studied during this research. Therefore, it was not possible to identify if any aspect regarding their family context could be related to the treatment progress of the adolescents in the CREIs.

The last limitation encountered refers to the matter that the study was formulated retrospectively and transactionally. Conducting a longitudinal study -where the treatment progress of the cases could be tracked in real time and information could be obtained directly from the adolescents- would have produced more reliable results, but it was not possible.

5. DISCUSSION

The first aim of this study was to identify the profile of the population treated in the intensive educational residential centers (CREI) of Catalonia, a variant of TRC.

It was found that more than half the sample had substance abuse issues, criminal offences and mental health disorders. Nearly three quarters came from residential centers, arriving at a mean age of 15.5 years old and stayed at the CREI for 14.5 months on average. During their stay, more than half ran away at least once and, upon discharge, one-third returned to their family home.

In this context, it is important to point out that some differences were found amongst the adolescents' profile depending on their sex. In Catalan residential care, boys had more disruptive behaviors, substance abuse and criminal records than girls; while girls tended to suffer more from emotional distress and to become adolescent mothers (Sala, Villalba et al., 2009). However, in the present study, girls were more likely to perform riskier behaviors while in the CREIs than boys as results showed that more girls than boys had substance abuse; briefer average durations-of-stay at the center; ran away more often; and were discharged at a younger age. Other studies have also found that girls tended to run away more than boys (Courtney, & Zinn, 2009; Dworsky, Wulczyn, & Huang, 2018). Cotton et al., (2019) found that girls had more psychological distress, placement instability and sedative abuse. Therefore, it is reasonable to think that the emotional distress could be the factor underlying the riskier behaviors. Based on these findings, it seems important to design, implement, and evaluate specific TRC treatment programs to better meet girls' needs and circumstances as also suggested by Águila-Otero et al. (2020); who similarly found that girls in TRC exhibited a specific pattern of risk behaviors and mental health needs, showing greater psychological distress and a more complex profile. In this sense, no bibliographic references were found regarding girl-intended treating programs, since TRC has often functioned as catch-all facilities over time, where adolescents with very diverse casuistries were fostered without having a defined profile (Jakobsen, 2015). Historically, they have been used as a last resort for those adolescents who did not work anywhere else and as a containment resource for the toughest cases (McLean, Price-Robertson, & Robinson, 2011).

The second aim of this research was to identify the factors influencing the progress of adolescents under treatment in the CREIs. The positive progress was understood as the improvement in the factors that caused the adolescent to be placed in a CREI. Our results showed that the cases who were less likely to improve under treatment were those who presented with both criminal offences -prior to intervention- and substance abuse. Additionally, these cases had shorter stays at the CREI because used to run away more and often not return.

Frequent substance abuse is a recurring problem among adolescents, and it is more common, in fostered adolescents from 12 to 17 living in residential centers (Backović, Marinković, GrujIčić-Šipetić, & Maksimović, 2009; Siegel, Benbenishty, & Astor, 2016). Although CREIs were not established as addiction treatment facilities, Martín et al. (2018) found that substance abuse is a predictive variable for being referred to TRC. However, even though the consequences of consumption are tackled in the CREI at a tutorial level or with the psychologist of the center, there are no specific intervention programs to address this problem in the centers and the public resources for drug addiction within the child and adolescent mental health public network are very limited (Delgado, 2018). In this vein, we believe that a more specific and intensive intervention program aimed at mitigating this problem is needed, since our results show that substance abuse is generally associated with a non-positive treatment progress at the centers.

According to the results of our study, one key factor impacting the adolescents' treatment progress in the CREIs are runaways. We found that running-away is associated with a poorer prognosis or even no treatment progress at all. This finding coincides with

Akin (2011) who found that running-away is an important predictor of outcomes. As our results showed, an excessive percentage of the cases ran away, sometimes repeatedly and many never returned to the center. This fact, apart from being decisive in the progress performed, could be an obstacle for the adolescents to receive the adequate attention, education, healthcare, and access to other services (Biehal & Wade, 1999; Fasulo, Cross, Mosley, & Leavey, 2002; Zimmerman, Abbey, Nicholas, & Bieber, 1997). Furthermore, the likelihood of running away increases with every runaway episode, the number of placements and the age (Courtney, & Zinn, 2009; Dworsky, Wulczyn, & Huang, 2018). In addition, Attar-Schwartz (2013) found that runaway behavior was particularly frequent in adolescents with more adjustment difficulties and, as well, those who perceived staff as strict and unsupportive. Keller, Cusick & Courtney (2007) after analyzing a large sample of adolescents on the point of leaving foster care found two subgroups of adolescents with problematic behavior; one group with frequent runaways and substance abuse; and another that felt more engaged and accepting of the welfare system support. In this vein, Leathers (2006) found that the integration in the foster placement mediated the association between behavior problems and the risk of disruptions. This is why, a more in-depth study needs to be done to enhance adolescents' engagement -socialization, bonding, attachment- with the staff and the center, especially with respect to their involvement in their own rehabilitative process. In fact, as stated by at least one study (Fundació Plataforma Educativa & IRQV, 2010), factors such as quality of care; involvement of the educational team with adolescents; creation of a secure attachment; and receiving affection from staff all contributed to a positive progress of adolescents in residential care. It also seems to be important when this engagement happens, as Smith et al. (2008) identified that with an early engagement to the residential treatment program, adolescents were more likely to receive interventions and to show more positive outcomes at discharge (e.g., self-efficacy, school attachment) compared to adolescents with lower levels of early engagement. Besides, Dakof, Tejeda, & Liddle, (2001) found that both parents and adolescents perceptions are pivotal to whether or not they engage in the treatment program. Subsequently, adolescent engagement strategies must focus on improving both the adolescents' self-perception and their parents' impressions. This leads us to state that families need to be an integral part of the therapeutic residential treatment program as several authors have found (e.g., Andreassen, 2015). Therefore, working on improving the self-perception of adolescents and parents' perceptions could help adolescents achieve a greater emotional well-being and more willingness and receptivity with regard to the intervention and, in consequence, better outcomes.

The other key element found to influence adolescents' treatment progress in the CREI was duration of stay. Although research has found that the duration of intervention in TRC should be limited as it is a non-normalized setting (Jackobsen, 2015), our findings suggest that longer courses of treatment may result in more improvement. Such beneficial outcomes perhaps could be explained by the emotional well-being obtained by the stability of the center and the attachment created with the staff. Sunseri (2005) found that high intensive residential therapeutic care programs had the greatest placement stability and it is widely known that placement stability is linked to more positive outcomes for children and adolescents placed in out-of-home care (e.g., Pecora et al., 2010). It should

be noted, however, that the concept of 'treatment progress' was extracted from the subjective evaluations of the staff on the improvement of the adolescents' behavior during their stay in the CREI. This does not mean that this improvement will necessarily translate into overcoming the problems that led the adolescent into the CREI once they return to their context of origin; indeed, as found by Leipoldt, Harder, Kayed, Grietens, and Rimehaug (2019), length of time after post-treatment may reduce the benefits seen. In our research, this could not be checked, as there is no continuity of care understood as no post-discharge follow-up or further formal contact between the adolescents and the centers. In this sense, a follow-up needs to be carried out in order to monitor adolescents' outcomes once they leave the program. It would help to further understand their progress -or lack thereof- after discharge and formulate programmatic improvements and thereby achieve a more effective and comprehensive intervention process. Finally, adolescence is a period in life which is characterized by an increased presence of disruptive behaviors in young people (Hare et al., 2008; Pfeifer, Masten & Moore, 2011; Steinberg, 2010). For this reason, at an international level, as Whittaker et al. (2016) explain, there exists many programs designed to work on this type of behavior. Therefore, identifying the profile of adolescents who may require admission to therapeutic residential centers and detecting which factors are associated with positive treatment, or on the contrary, those that are linked to a poor prognosis, are key aspects both in designing effective treating programs and carrying out preventive interventions from the basic social services.

6. CONCLUSIONS

It seems that this type of treatment may be working well with the milder cases as they already have a better prognosis, but the programs do not appear to be working adequately for adolescents with greater difficulties such as substance abuse and criminal offences. Self-esteem, self-perception, and engagement in their own process and life plan must be a priority to be intensively worked at while at the CREIs. Besides, considering the differences found between boys and girls we find it necessary to design TRC treatment programs that take into account the gender perspective. Also essential is incorporating interventions to mitigate substance abuse, as this is a widespread problem that tends to substantially reduce the possibility for positive change that – otherwise taken – these adolescents could reach.

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