

Difficulties Establishing New Bonds during Adolescence. The Influence of Past Childhood Attachment Experiences

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Abstract

This study aims to explore whether past childhood attachment experiences influence adolescent attachment style and difficulties establishing new bonds during adolescence, and whether caregiving environment conditions, such as being in foster care or in an at-risk family, affect this association. The CaMir-R test was administered to 3 groups of adolescents: 24 in foster care, 22 from at-risk families supervised by social services and 46 from the general population. The results support the strong influence of childhood attachment experiences on adolescent attachment style and difficulties establishing new bonds during adolescence. The data reveal differences between the groups and in gender with regard to the influence of childhood attachment experiences on adolescent attachment styles. Childhood attachment experiences exerted a greater influence in the foster care group than in the other groups. As for gender differences, childhood attachment experiences had a greater effect on boys than girls with regard to current self-sufficiency, feelings of resentment and the value assigned to parental authority, while they affected current family concern more in girls than in boys.

Keywords: Adolescence; Attachment; Foster Care, RAD

1. Introduction

Insecure attachments

Insecure attachments are associated with depression, anxiety disorder, illicit drug abuse/dependence and crime (Fowler, Allen, Oldham & Frueh, 2013; Marganska, Gallagher, & Miranda, 2013; Raudino, Fergusson & Horwood, 2013). In the anxious attachment, high rates are noted for anxiety, strong need for intimacy, difficulty in relations and fear of rejection (Lecannelier, 2002; Mikulincer, Gillath & Shaver, 2002). In avoidant attachment, emotional distance and the production of symptoms of anxiety on a physiological level, episodes of rage and high hostility are observed (Kerr, Melley, Travea, & Pole,

2003). Finally, disorganised attachment is mainly observed in young people that have been abused or that suffer from severe mental fragility, which indicates very little or no connection with their carer (Hawkins & Rodgers, 2007).

In DSM-V and ICD nosology, reactive attachment disorder (RAD) is described as a disorder that can appear as a consequence of early childhood maltreatment. This disorder can take the inhibited form when the child does not respond to interactions in an appropriate way; or the disinhibited form when the child has indiscriminate sociability, attention seeking and excessive clinginess. Minnis et al. (2013) estimated that 1.4% of the deprived general population suffer this disorder. Kay and Green (2013) found a high prevalence of RAD in out-of-

home care adolescents, and that it was associated with multiple maltreatment experience, earlier entry to care and increased rates of psychopathology. Nevertheless high-quality caregiving interventions can reduce it (Humphreys, Nelson, Fox & Zeanach, 2017).

Adolescent attachment, relationships and dependency feelings

Childhood attachment experiences configure an internal representation model of relationships that could influence future affective and attachment relationships. Studies on attachment agree that there is a certain stability in attachment and that early experiences condition later attachment styles in adolescence, such as, for example, relationships with partners or with the social support network (López, 2006). Individual differences in adult attachment styles can be traced to variations in the quality of individuals' caregiving environments (Zayas, Mischel, Shoda, and Aber, 2011), their emerging social competence, and the quality of their best friendship (Fraley, Roisman, Booth-LaForce, Owen, & Holland, 2013).

Interdependence is a key issue in relationships, nevertheless there are usually asymmetric levels of dependence, and consequently, of power. People respond to distressing situations of high dependency in divergent ways: withdrawing from their partner to minimise control and dependency feelings; or attempting to restore a close connection with their partner. These reactions are influenced by attachment experiences. Adults that experienced avoidance attachment in their childhood develop the belief that others are untrustworthy and unwilling to provide support when needed; therefore, they can be terrified of depending on others and lose their sense of power and control. Highly avoidant people do not usually get close to others, and in distressing situations they distance themselves from their partner and offer less support. Adults that have experienced anxious attachment, with fear of being rejected or abandoned by their attachment figure, have a profound hunger for closeness, are preoccupied with being accepted, and have high levels of dependence. In distressing dependence situations this can lead to them sacrificing more than their partner in order to gain

their appreciation (Goodboy, Dainton, Borzea & Goldman, 2017; Overall & Sibley, 2009).

Dependency feelings also have a major influence on sexist aggression. Men with hostile sexism tend to show aggressive behaviours when they have dependency feelings towards their partner, and fear that they exploit these feelings (Cross, Overall, Hammond & Fetcher, 2017).

Del Giudice & Belsky (2010) pointed out that while no studies have found sex differences in childhood attachment, studies in romantic attachment show that men can have more avoidance and less anxiety attachments than women; they argue that these differences can emerge in middle childhood.

Adolescent attachment and bonds of youth in care

Residential care is currently among the most widely used resources in some European countries like Romania, France and Spain, despite the severe criticism it has received for decades (Browne, Hamilton, Johnson & Ostergren, 2006). Many studies are still revealing the difficulties that centres can provoke due to young residents rarely getting the chance to form a bond with a parent or carer figure (Rushton & Minnis, 2002) and receiving less individualised attention and opportunities for social interaction than children in families (Giese & Dawes, 1999). It is hard for residential care to sufficiently fulfil this family function (Sala, Villaba, Jariot, & Arnau, 2012). However, the type of population found in these centres has changed in recent years and the characteristics of early age children in centres differ from those in the adolescent population. The age of youngsters in residential care in Europe is increasing, meaning that these resources are housing an increasingly larger proportion of young people over 12 years of age (Bravo & Del Valle, 2001). As del Valle and Bravo pointed out (2013), residential care must now deal with adolescents with diverse problems that cannot be dealt with in family foster care.

Adolescents in residential care display difficulties with respect to the normative population in terms of emotional and behavioural problems, problems with the law and greater difficulties obtaining stable employment, among others (e.g.

Del Valle, Bravo, López, 2009; Oriol, Sala-Roca, & Filella, 2015; Vasileva, 2018). However, the aforementioned effects of institutionalisation on said problems need to be identified. Many of these young people enter centres during preadolescence (Bravo & Fernández del Valle, 2001) and their experiences of living in a family environment during infancy may therefore have a major impact on their socio-emotional development and their future transition into adult life once care is over. In fact, biological family is still the main reference for these adolescence when they leave care (Cuenca, Campos & Goig, 2018).

Hodges & Tizard (1989) found that ex-institutional adolescents had more problems establishing social relationships: they were more often adult-oriented; more likely to have difficulties in peer relations; less likely to have a special friend; less likely to turn to peers for emotional support if anxious; and less likely to be selective in choosing friends. Social and interpersonal relationship difficulties are hallmark features of clinical presentations by children in care; anxiety is more often observed as a component of the insecurity they feel than as generalized or trauma-specific anxiety (Tarren-Sweeney, 2013). This has special significance in adolescence, since relationships with peers have the greatest impact on adolescent self-esteem (Farineau, Stevenson, Wojciak & McWey, 2013) and greater insecurity in adolescence with regard to parents and peers has been found to predict a more anxious romantic attachment style and greater use of emotion-oriented strategies in adulthood (Pascuzzo, Cyr, & Moss, 2013).

This study aims to analyse if the difficulties adolescents in care experience when establishing new bonds can be explained by childhood attachment experiences. The study will focus on several research questions: Are there any differences in childhood and adolescent attachment between adolescents who come from residential care, from at-risk families and the normative population? Do childhood attachment experiences influence adolescent attachment style? If so, is this relationship different depending on sex or family environment (residential care, risk families and normative population)?

2. Method

Participants

Participants were 92 adolescents (39 boys and 53 girls) from Catalonia aged from 14 to 18 ($M = 15.7$; $SD = 1.1$). The participants formed three groups: foster care group comprising 24 young people who lived in four group homes in Catalonia; normative group comprising 46 adolescents from three secondary schools; and at-risk family group comprising 22 adolescents from families at risk that were being supervised by social services. Three youths in the foster care group entered care when they were 2–5 years old; five when they were 6–10 years old; eight when they were 11–12 years old, and six when they were 13–14 years old.

Participants and their legal guardians/carers were informed about the study and their voluntary participation was requested.

Instrument

The CaMir Questionnaire is designed to measure representations of attachment (Pierrehumbert, Karmaniola, Sieye, Meister, Miljkovitch & Halfon, 1996) and the CaMir-R is the abridged version after its translation into Spanish and validation (Balluerka, Lacasa, Gorostiaga, Muela & Pierrehumbert, 2011). The CaMir-R consists of 32 items that evaluate past (childhood) and current experiences of attachment regarding family functions. Participants respond to each item on a 5-point Likert scale (1= Totally disagree, 5= Totally agree). Balluerka et al. (2011) conducted a study of 676 adolescents, and in observing the validity and reliability of the CaMir-R, found the internal consistency indexes for each of the seven scales ranged from 0.60 to 0.85. In the present study the consistency index in the seven scales ranged from .60 to .93.

Factors

The internal structure of the questionnaire consists of seven factors (table 1). Factor 1 is Security (availability and support of attachment figures). It includes seven items on feeling loved by attachment figures in the childhood (5 items) and

feeling they are available in the present (2 items). Factor 2, Family Concern, includes 6 items and refers to feelings of worry and separation anxiety at the present time. Factor 3 is Parent's Interference and includes 4 items about parental overprotection and control behaviours in the childhood. Factor 4, Parent Authority Value, includes 3 items measuring positive views of parental authority. Factor 5, Parent

Permissiveness, includes 3 items about childhood experiences of excessive parental permissiveness. Factor 6, Self-sufficiency, includes two items relating to negative feelings towards dependency and two about resentment of parents. Factor 7 is Childhood Trauma; it includes 5 items and refers to childhood trauma experiences in the family.

Table 1

Camir-R items

<p>1. Security: availability and support from attachment figures (<i>mainly childhood attachment experiences</i>)</p> <p>1. When I was a child, my loved ones made me feel that they liked to share their time with me.</p> <p>2. When I was a child, I knew that I would always find comfort in my loved ones.</p> <p>3. If necessary, I am sure that I can count on my loved ones to find comfort.</p> <p>4. When I was a child, I found enough love in my loved ones not to look elsewhere.</p> <p>5. My loved ones have always given me the best of themselves.</p> <p>6. Relationships with my loved ones during my childhood seem, in general, positive.</p> <p>7. I feel confident in my loved ones.</p>
<p>2. Family concern (<i>current attachment style</i>)</p> <p>8. I can't concentrate on something else knowing that some of my loved ones have problems.</p> <p>9. I am always worried about the grief I can cause my loved ones by leaving them.</p> <p>10. I often feel worried, for no reason, about the health of my loved ones.</p> <p>11. I have a feeling that I would never overcome the death of one of my loved ones.</p> <p>12. The idea of a momentary separation from one of my loved ones makes me feel restless.</p> <p>13. When I move away from my loved ones, I don't feel good about myself.</p>
<p>3. Parent's interference (<i>childhood attachment experiences</i>)</p> <p>14. When I was a child, they worried so much about my health and safety that I felt imprisoned.</p> <p>15. My parents couldn't help but control everything: my appearance, my school results and even my friends.</p> <p>16. My parents have not realised that when a child grows up they need to have a life of their own.</p> <p>17. I hope my children are more autonomous than I have been.</p>
<p>4. Parent authority value (<i>current view of family structure</i>)</p> <p>18. It is important that children learn to obey.</p> <p>19. Children should feel that there is a respected authority figure within the family.</p> <p>20. In family life, respect for parents is very important.</p>
<p>5. Parental permissiveness (<i>childhood attachment experiences</i>)</p> <p>21. My parents have given me too much freedom to do everything I wanted.</p> <p>22. When I was a child, they had a laissez-faire attitude.</p> <p>23. My parents were unable to be authoritative when necessary.</p>
<p>6. Self-sufficiency and resentment towards parents (<i>current attachment style</i>)</p> <p>24. I hate the feeling of depending on others.</p> <p>25. As a teenager, nobody in my environment understood my concerns at all.</p> <p>26. I only count on myself to solve my problems.</p> <p>27. From my experiences as a child, I understand that we are never good enough for our parents.</p>
<p>7. Childhood trauma (<i>childhood attachment experiences</i>)</p> <p>28. The threat of separation, transfer to another place, or broken family ties are part of my childhood memories.</p> <p>29. When I was a child, there were unbearable fights at home.</p>

30. When I was a child I had to face the violence of one of my loved ones.
31. When I was a child, my loved ones were often impatient and irritable.
32. When I was a child, we had a lot of difficulty making family decisions.

(Balluerka et al., 2011)

Childhood attachment experiences and adolescent attachment style

Three factors (Interference, Permissiveness and Trauma) assess childhood experiences and three factors (Family Concern, Authority Value, Self-sufficiency) adolescence attachment style, while dimension 1 – Security – mainly assesses childhood experiences but also includes 2 items that includes current availability of attachment figures.

Balluerka et al. (2011) associated secure attachment with Factor 1 (Security), insecure-troubled attachment with Factors 2 and 3 (Troubled and Interference), insecure-avoidant attachment with Factor 6 (Self-sufficiency and resentment) and disorganised attachment with Factor 7 (Trauma). Factor 4 and 5 were associated with representations of the family structure.

Procedure

For application of the instruments, a protocol was developed that was used by the same researcher when collecting data for each subsample.

The first phase consisted of administering the questionnaires to the normative population group. Sample adolescents were sought between the ages of 14 and 17 at three secondary schools in the province. The CaMir-R questionnaire was administered in classrooms corresponding to the 3rd and 4th years of ESO (compulsory secondary education – the equivalent to UK Years 10 and 11, respectively). The research objectives were explained and the participants took part voluntarily.

The second phase consisted of administering the questionnaires to young people in care, specifically in group homes. The test was administered in their homes. To do this, after receiving consent from the General Directorate for Infant and Adolescent Care (Autonomous Government of Catalonia), four group homes were selected from the province that catered for the adolescent population. Participation was again voluntary for all 14 to 17-year-old adolescents who

wished to form part of the sample. Their informed consent was requested.

In the third phase, the basic social services were asked to select adolescents of the same age as the other groups whose families presented risk factors and were receiving supervision as a result of this. The adolescents answered the questionnaires in facilities where they were attending a training program. Once again, all the selected adolescents voluntarily offered to participate and their informed consent was requested.

3. Results

To answer the research questions we have analysed past childhood attachment experiences (factor 1, 3, 5 and 7) and current adolescent attachment style (factors 2, 4 and 6). ANOVA test was used to analyse differences between groups and sexes, while regressions were used to analyse the contribution of childhood experiences (factors 1, 3, 5 and 7) in adolescent attachment style (2, 4 and 6).

Are there any differences in childhood attachment experiences between the groups?

A variance analysis was performed using the ANOVA to analyse differences in childhood attachment experiences between groups (Figure 1). The analysis showed that the main difference is in Trauma experiences [$F(2, 91) = 32.37; p < 0.001$]. The group effect explained 40.1% of the variance in the Trauma factor ($\eta^2 = 0.401$). Foster care group scored higher than normative group and at-risk families group on this scale [$M = 16.96$ vs. 7.98 vs. $11.03; p < 0.001$ and $p < 0.001$; respectively], while the at-risk families group scored higher than normative group ($p < 0.05$).

Figure 1. Childhood attachment experiences and adolescent attachment style: Differences between groups (* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$).

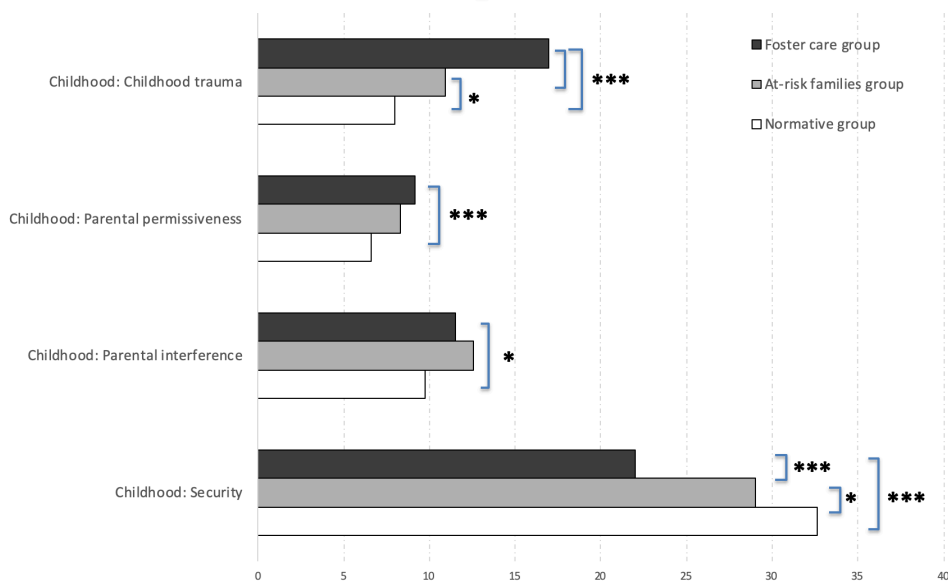


Figure 1. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Group differences also explained 37.9% of the variance in the Security factor ($\eta^2 = 0.379$) [$F(2, 91) = 28.8, p < 0.001$]. Foster care group scored lower in this factor than normative and at-risk families groups ($M = 22$ vs. 32.6 vs. 29 ; $p < 0.001$ and $p < 0.001$; respectively), while at-risk families group scored lower than normative group ($p < 0.05$).

Group differences in childhood experiences were also found in Parental Permissiveness [$\eta^2 = 0.155$; $F(2, 91) = 9.34, p < 0.001$] and Parental Interference [$\eta^2 = 0.087$; $F(2, 91) = 5.33, p < 0.01$]. However, although foster care group scored higher than normative group in these two factors ($M = 9.2$ and 11.5 vs. 6.6 and 9.8 ; $p < 0.001$ and $p < 0.05$; respectively), no significant differences were found with at-risk families group.

Are there any differences in current adolescent attachment style between the groups?

The ANOVA detected small differences between groups in relation to Value awarded to Parental Authority [$F(2, 92) = 5.2; p < 0.01; \eta^2 = 0.084$] and current Self-sufficiency and Feelings of Resentment [$F(2, 92) = 3.2; p < 0.05; \eta^2 = 0.046$], but not Family Concern (Figure 2). Foster care group scored higher on Self-sufficiency and Feelings of Resentment than normative group ($M = 13.3$ vs. 11.3 ; $p < 0.05$). At-risk families group also scored lower in the Value awarded to Parental Authority than both normative group ($M = 11.5$ vs. 13 ; $p < 0.01$) and foster care group ($M = 11.5$ vs. 13.1 ; $p < 0.01$) (Fig. 2).

Figure 2. Adolescent attachment styles: Differences between groups

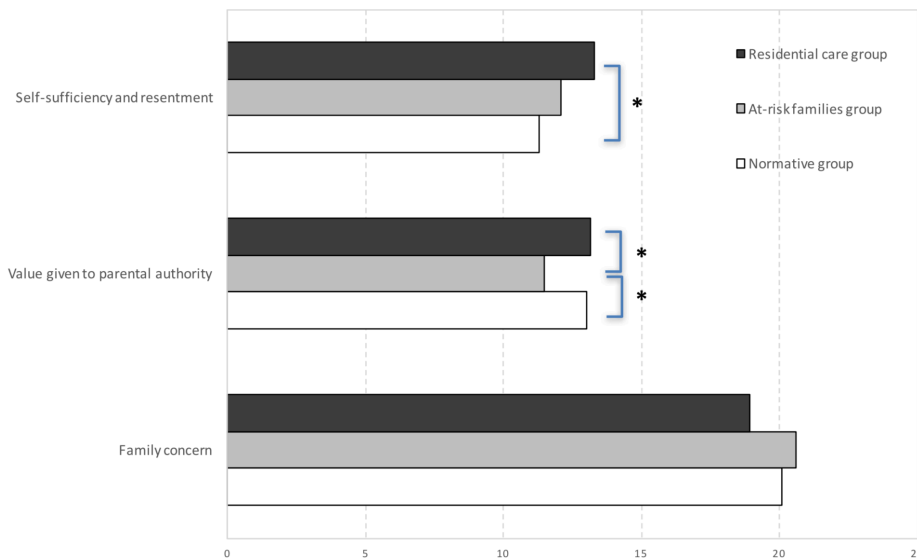


Figure 2. * $p < 0.05$.

Do childhood attachment experiences influence adolescent attachment style?

A correlation and regression analysis was performed to analyse whether child attachment experiences influence participants' current attachment style (family concern, and self sufficiency and resentment) and the Value awarded to Parental Authority.

The correlation matrix shows that that current Self-sufficiency and Feelings of Resentment correlated with all childhood attachment factors: Trauma ($r = 0.5, p < 0.001$), Parental Interference ($r = 0.4, p < 0.001$), Parental Permissiveness ($r = 0.3, p < 0.01$) and Security ($r = - 0.3, p < 0.01$). Family Concern and feelings of anxiety correlated with Security ($r = 0.3, p < 0.001$) and Parental Interference ($r = 0.3, p < 0.01$), and the Value awarded to Parental Authority only correlated with the Security factor ($r = 0.3, p < 0.01$).

The regression analysis shows that 34.2% of the variance (R^2) in current Self-sufficiency and Feelings of Resentment are explained by childhood attachment experiences related to Trauma ($\beta = 0.43; p < 0.001$) and Parental Interference ($\beta = 0.30; p < 0.001$) [$F(2, 91) = 23.2; p < 0.001$]. When the regression was done for the two items that assess self-sufficiency (hating to depend on others and feeling only able to count on oneself to solve problems), the results followed the same pattern;

22.2% of the variance was explained by childhood attachment experiences related to Trauma ($\beta = 0.36; p < 0.001$) and Parental Interference ($\beta = 0.23; p < 0.05$).

Some 23.4% of variance in current Family Concern and Anxiety Feelings can be explained by childhood attachment experiences related to Security ($\beta = 0.52; p < 0.001$), Trauma ($\beta = 0.27; p < 0.05$) and Parental Interference ($\beta = 0.21; p < 0.05$) [$F(3, 91) = 10.5; p < 0.001$].

Finally, 8.4% of the variance in current Value awarded to Parental Authority is explained by childhood experiences related to Security ($\beta = 0.31; p < 0.01$) [$F(1, 91) = 9.4; p < 0.01$].

Does gender affect the relationship between childhood attachment and adolescent attachment style?

The ANOVA analysis did not detect any difference between boys and girls, in either childhood attachment experiences or adolescent attachment style. However, our regression analysis did reveal that the influence of childhood attachment experiences is more intense in boys than in girls in relation to current Self-sufficiency and Value awarded to Parental Authority, while the influence of childhood experiences in relation to Family Concern is higher among girls than boys.

Among boys, 41.4% of variance in current Self-sufficiency and Feelings of Resentment is

explained by childhood attachment experiences related to Parental Interference ($\beta = 0.46$; $p < 0.001$) and Trauma ($\beta = 0.34$; $p < 0.05$) [$F(2, 38) = 14.4$; $p < 0.001$], whereas in girls, the explained variance is lower (24.6%) and only related to Trauma ($\beta = 0.51$; $p < 0.05$) [$F(1, 52) = 18$; $p < 0.001$].

In boys, 22.8% of the variance in current Value awarded to Parental Authority is explained by childhood experiences related to Security ($\beta = 0.50$; $p < 0.01$) [$F(1, 38) = 12.2$; $p < 0.01$]. In girls, no significant relationship was found for childhood experiences in relation to current Value awarded to Parental Authority.

The opposite is found when analysing current Family Concern and Anxiety Feelings. Among girls, 32.8% of the variance in current Family Concern and Anxiety Feelings is explained by childhood attachment experiences related to Security ($\beta = 0.52$; $p < 0.001$) and Trauma ($\beta = 0.27$; $p < 0.05$) [$F(2, 52) = 13.7$; $p < 0.001$], whereas among boys, the explained variance for current Family Concern and Anxiety Feelings is lower (10.4%) and explained by Parental Interference ($\beta = 0.36$; $p < 0.05$) [$F(1, 38) = 5.4$; $p < 0.05$].

Is the relationship between childhood attachment and adolescent attachment style different between the groups?

When the regression analysis was performed by group, some different patterns emerged. In foster care group, 41.1% of the variance in current Self-sufficiency and Feelings of Resentment is explained by childhood attachment experiences related to Trauma ($\beta = 0.66$; $p < 0.001$) [$F(1, 23) = 17.1$; $p < 0.001$]. This percentage is higher in normative group. Also, in normative group, 44% of the variance is explained by childhood experiences related to Parental Interference ($\beta = 0.46$; $p < 0.001$) and Trauma ($\beta = 0.39$; $p < 0.001$) [$F(2, 45) = 18.7$; $p < 0.001$]. But no significant relationship is found between current Self-sufficiency and Feelings of Resentment and childhood attachment experiences in the at-risk families group.

In foster care group, 35.8% of the variance in current Family Concern and anxiety feelings is explained by childhood experiences related to Security ($\beta = 0.62$; $p < 0.01$) [$F(1, 23) = 13.8$; $p <$

0.01] and in at-risk families group, 30.4% of the variance is explained by Parental Interference ($\beta = 0.58$; $p < 0.001$) [$F(1, 21) = 10.2$; $p < 0.01$]. However, in normative group, the explained variance is only 7.9%, and is also explained by childhood experiences related to Security ($\beta = 0.31$; $p < 0.001$) [$F(1, 45) = 4.8$; $p < 0.05$].

Finally, in foster care group, 30.3% of the variance in current Value awarded to Parental Authority is explained by childhood experiences related to Security ($\beta = 0.58$; $p < 0.01$) [$F(1, 23) = 11$; $p < 0.01$]. In at-risk families group, 28.6% of the variance in current Value awarded to Parental Authority is explained by childhood experiences related to Security ($\beta = 0.57$; $p < 0.01$) [$F(1, 21) = 9.4$; $p < 0.01$]. While in normative group the explained variance is only 10.3% for childhood experiences related to Trauma ($\beta = -0.35$; $p < 0.05$) [$F(1, 45) = 6.2$; $p < 0.05$].

4. Discussion

The results of this study support the strong influence of childhood attachment experiences on feelings of dependency and difficulties establishing new bonds during adolescence. These findings are in accordance with those of other studies which have observed that early experiences condition relationships with partners or the social support network in adolescence (López, 2006).

Balluerka et al (2011) stated that the insecure-troubled attachment is associated with childhood Parental Interference experiences and current Family Concern, the insecure-avoidant attachment is associated with current Self-sufficiency and Feelings of Resentment, disorganised attachment is associated with childhood Trauma experiences, and childhood Security attachment is associated with the secure attachment style in adolescence. However, the results of the present study do not concur with this. We found that 34.3% of the variance observed in the factor measuring resentment and distrust in relationships and the need to feel self-sufficient was explained by childhood attachment experiences, mainly related to trauma. It would therefore appear that Self-sufficiency and Feelings of Resentment are associated with trauma and a possible pattern of

disorganised attachment. This Self-sufficiency association can be associated with symptoms of the inhibitive form of the Reactive Attachment Disorder.

In this study, the data also show an important association between childhood experiences related to Security, Trauma and Parental Interference, and Family Concern and Anxiety Feelings (23.4%). This could indicate that young people with high scores for this pattern have had disparate attachment experiences with their carers, which would more resemble a pattern related to the insecure-troubled attachment. On the other hand, the data show an association between the Value awarded to Parental Authority and childhood Security experiences in relation to attachment, especially in boys.

Moreover, the observed relationships differed according to gender. Childhood attachment experiences affected current Self-sufficiency and Feelings of Resentment and the Value awarded to Parental Authority more in boys than in girls, while childhood attachment experiences affected current Family Concern more in girls than in boys. On the other hand, boys seem to be more sensitive to Parental Interference than girls. These results are in agreement with [Del Giudice & Belsky's \(2010\)](#) observation, that in the transition between childhood and adolescence, differences appear in attachment style, with boys having greater avoidance and less anxiety attachment.

These results support the idea that there are significant gender differences in the way that non-secure attachments affect social functioning. [Gloger-Tippelt and Kappler \(2016\)](#) found that girls were 1.8 times more likely to present secure narratives and 0.4 times less likely to present disorganised narratives than boys. In addition, [McHenry, Carrier, Hull and Kabbaj \(2014\)](#) found that girls are more prone to develop anxiety and depressive disorders.

We found important differences in childhood attachment experiences by group, especially in relation to the Trauma and Security factors. Thus, 40.1% and 37.9% of the variance in these factors was explained by the group. Foster care group experienced more trauma and less security bonds than normative and at-risk families groups,

and more permissiveness and interference than the normative group.

These data are in line with the findings of [Confalonieri, Traficante & Vitali \(2009\)](#), who showed that young adolescents living with their families present a higher percentage of secure bonding than adolescents in residential care. However, these results must be interpreted differently from those of the numerous other studies that explain difficulties for establishing a secure attachment bond among children at early ages in centres. The mean age on entry in the study sample is almost ten years and many of these young people therefore entered centres at ages close to preadolescence. Some of the questions in the CaMir-R refer to childhood attachment experiences that happened in early childhood, and so the results for secure attachment would refer to the relationships that they established with their progenitors before institutionalisation. As argued in other studies ([Gershoff, Aber & Raver, 2003](#)), the difficulty in establishing a good bond with their carers due to situations of family risk that these youngsters may have suffered may be the reason for differences in scores with the normative population group.

We also found that, compared to normative group, the at-risk families group scored higher in childhood experiences related to Trauma and lower in Security experiences, although differences are not as large as for the foster care group. However, the at-risk families group does not differ from either of the other two groups when it comes to parental permissiveness and interference.

Both the foster care group and the at-risk families group had difficulties in their family environment during childhood, but while in the former these difficulties were severe enough to require the young person to go into out-of-home care, in the latter this has not yet been the case. We must bear in mind that the at-risk families group was composed of young people being supervised by the social services. It is therefore not surprising that they also present more trauma and fewer security attachment experiences than the normative group.

However, our analysis found small differences between groups in current Value awarded to Parental Authority (8.8%) and current

Self-sufficiency and Feelings of Resentment (4.6%) but not in Family Concern.

Cyrlunik (2009) pointed out that the affective relationship in adolescence is a second opportunity to change the impact of child attachment experiences on the attachment style in adolescence. In adolescence, peer relationships have a strong influence. In fact, among foster care children, who experience more trauma experiences in childhood, relationships with peers have been found to have the greatest impact on adolescent self-esteem (Farineau et al., 2013). Fraley et al., (2013) found that individual differences in adult attachment can be traced back to variations in the quality of individuals' caregiving environments, their emerging social competence, and the quality of their best friendship. On the other hand, young people in group homes can develop affective bonds with professional carers that can help them to develop confidence in relationships and facilitate the building of new affective bonds (Soldevila, Peregrino, Oriol & Filella, 2013). However, foster families represent the out-of-home placement that provide most opportunities to establish secure attachment bonds (Joseph, O'Connor, Briskman, Maughan, & Scott, 2014).

The foster care group was the one that experienced most Self-sufficiency and Feelings of Resentment during adolescence, and the at-risk families group awarded less Value to Parental Authority. These findings may denote that the foster care group is more likely to present insecure or disorganized attachment style. This would be in agreement with the observations of Kay & Green (2013) that out-of-home adolescents have a high prevalence of RAD.

As mentioned earlier, this study provides strong support that childhood attachment experiences influence adolescent attachment style. That said, the influence of childhood attachment experiences on current feelings of dependency and difficulties establishing new bonds differed among the three groups of participants. Childhood experiences have a greater influence in the foster care group than in the other groups, explaining 41% of the variance in current Self-sufficiency and Feelings of Resentment, 35.8% of Family Concern and Anxiety Feelings and 30.3% of current Value

awarded to Parental Authority. The main experiences that explained adolescent attachment style in this group were related to Trauma and Security.

In the at-risk families group, childhood attachment experiences explain 30.4% of the variance in Family Concern and Anxiety Feelings, and 28.6% of Value awarded to Parental Authority. However, no significant relationship is found with current Self-sufficiency and Feelings of Resentment. Current attachment styles in this group are mainly explained by childhood experiences of Security and Parental Interference.

These differences can be related to the severity of the maltreatment or neglect experienced by these two groups and to the consequences of the out-of-home placement that mean these young people lose not only the family environment but also their other social support network, given that most young people placed in group homes are forced to change school and friends several times (Sala, Villalba, Jariot & Arnau, 2012).

In the normative group, childhood experiences explain 44% of the variance in current Self-sufficiency and Feelings of Resentment, 10.3% of the variance in Value awarded to Parental Authority and 7.9% of the variance in Family Concern and Anxiety Feelings. In this group, experiences that could be distressing—like the ones included in the Trauma factor—are the main childhood experiences that explain adolescent attachment style.

These data again support the strong influence of Trauma experiences during childhood on adolescent attachment patterns. Many children suffer maltreatment and neglect without it being detected and these experiences will have long term effects on their future relationships, social functioning and emotional health (Marganska et al., 2013; Pascuzzo, Cyr, & Moss, 2013; Raudino et al., 2013).

This study has some limitations. Some of these limitations are linked to the sample selection. The sample is relatively small, and was selected for convenience. In addition, Camir-R is a self-report instrument that can present some biases linked to subjective perceptions and differences in personal tendency to report more positively or negatively.

Therefore, future studies, with bigger and probabilistic samples, and using other instruments, are needed to confirm the study results.

Implications and future directions

The data provided by this study suggest the importance of the parents' educational style in relation to attachment styles. An environment of poverty, and difficulties such as residential instability, family violence etc., hinder the warm and empathetic response that is necessary to encourage security in attachment (Lopez, 2006). Centres have difficulties fulfilling all of the family functions (Sala et al., 2012), but they should, as far as possible, guarantee a secure and affectionate environment and to a large extent this depends on the quality of the relationship that educators establish with young people and the relationship that centres establish with their families. Educators can play an important role in developing empathetic relations that foster secure affectionate bonds. Increasingly, more studies are suggesting that the variable that best explains success in residential care are the affective and emotional ties between educators and young people (Martín & González, 2007; Soldevila et al., 2013). Educators should offer emotional support for the difficult situations that adolescents encounter in centres (Bravo & del Valle, 2003). While in foster care, positive attachment relationships, like natural mentoring, can not only benefit attachment style reparation (Thompson, Greeson & Brunsink, 2016), but also improve future social inclusion and adult outcomes (Ahrens, DuBois, Richardson, Fan & Lozano, 2008). Nevertheless, considering the strong influence that child trauma and insecure attachment experiences have on adolescent attachment style, it is necessary for these children and adolescents to receive psychological attention.

The attachment system presents major stability (López, 2006; Lázaro & López, 2010) but the positive and meaningful experiences of young people may imply changes to these attachment styles (López, 2006). Neuroscience studies also conclude that adolescence is a period of much neuroplasticity, where the brain is open to multiple changes in accordance with the stimuli that it receives from its surroundings (Siegel, 2011). And this suggests the

need to encourage the development of contexts that benefit major positive stimulation for young people and that foster affective relationships between them and their educators.

5. Acknowledgments and funding

This study was supported by a grant from the Ministry of Education and co-financed from FEDER funds (EDU2016-77284-R). We would like to the secondary schools and students for their participation in the study.

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