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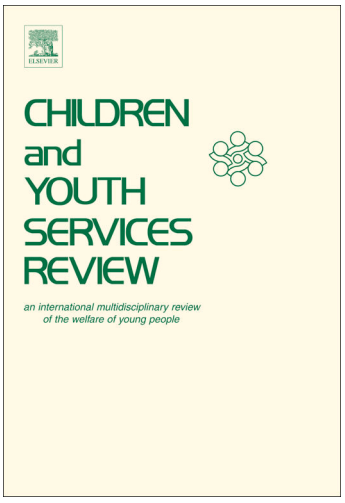

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Stability and Change in Adolescents' Well-being: The Role of Relationships with Caregivers in Residential Care

Mónica Costa[1,2], Semira Tagliabue[3], Paula Mena Matos[1,2] and Catarina Pinheiro Mota[4]

[1] Faculty of Psychology and Education Sciences, University of Porto

[2] Centre for Psychology at University of Porto

[3] Department of Psychology, Università Cattolica del Sacro Cuore, Brescia, Italy

[4] Department of Education and Psychology, University of Trás-os-Montes e Alto Douro

Author Note

Mónica Costa, Faculty of Psychology and Education Sciences, University of Porto, Center for Psychology at University of Porto

Semira Tagliabue, Department of Psychology, Università Cattolica del Sacro Cuore, Brescia, Italy

Catarina Pinheiro Mota, Department of Education and Psychology, University of Trás-os-Montes e Alto Douro; Center for Psychology at University of Porto

Paula Mena Matos, Faculty of Psychology and Education Sciences, University of Porto, Center for Psychology at University of Porto.

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Correspondence concerning this paper should be addressed to Catarina Pinheiro Mota. Universidade de Trás-os-Montes e Alto Douro. Departamento de Educação e Psicologia. Vila Real (Portugal). Email: catppmota@utad.pt

Abstract

Adolescents` well-being is an important marker of psychosocial adjustment and quality of life. However, few studies have been conducted about adolescents` well-being in residential care and its stability during time. Moreover, according to attachment theory,

the quality of the relationship between adolescents and caregivers constitutes a relevant factor for well-being, but few studies investigated its effect longitudinally. The present study examined the development of adolescents' well-being across three assessment waves, during one year. It aimed to test the moderating effect of adolescents' perception of their relationship with caregivers (characterized by emotional closeness and relational tension) on well-being. Participants were 306 adolescents, 12 to 18 years old, living in residential care in Portugal. The results showed that emotional closeness as perceived by the adolescents moderated the development of their well-being in the first six months, but no significant effects were found 1 year later. The results pointed out the role of the relationship with caregivers on positive psychological functioning of adolescents living in residential care.

Keywords: well-being, quality of the relationship, residential care, longitudinal, caregivers, adolescents

Introduction

Recent data estimates that over 2.7 million children and adolescents (between 0 and 17 years of age) around the world are living in residential care institutions in the custody of the state (Unicef, 2009; Petrowski, Cappa & Gross, 2017). In Portugal 7032 children and adolescents were living in institutional care in 2018 (ISS, 2019), being the majority adolescents and young adults (72%). The residential care is the most significant measure of placement in the country, representing more than 87% of extra-familial placement. (ISS, 2019). Research on this phenomenon is recent and the focus is put on the cognitive, behavioral and emotional problems associated with residential care. According to the general literature psychological well-being is associated with several relevant outcomes in adulthood, namely mental health and physical health,

disease and progression recovery, health behavior and vocational success (Bolier, Haverman, Westerhof, Riper, Smit, & Bohlmeijer, 2013; Diener, Pressman, Hunter, & Delgadillo-Chase, 2017; Howell, Kern, & Lyubomirsky, 2007; Lyubomirsky, King, & Diener, 2005). The importance of psychological well-being in adults has contributed to the recent interest of the study in adolescents and children (OECD, 2017). However, few studies have addressed adolescents` positive psychological functioning in residential care, and in particular psychological well-being and its development across time.

Well-being is considered one of the most important variables for adolescent adjustment (Bird & Markle, 2012; Casas, 2011; Pavot & Diener, 2013; Rodríguez-Fernández & Goñi-Grandmontagne, 2011). Psychological well-being and subjective well-being are two different concepts that represent different views regarding the study of well-being and its role in cognition, emotion and motivation (Keyes, Shmotkin, & Ryff, 2002). The Psychological well-being involves the perception of engagement with existential challenges of life, such as pursuing meaningful goals, growing and developing as a person, and establishing quality ties to others (Ryff, 1989; Ryff & Singer, 2008). Subjective well-being is the evaluation that people make of their own overall lives and emotional experiences (Diener, 2012; Diener, Oishi, & Lucas, 2015).

Two different approaches have been used in assessing well-being, namely bottom-up (e.g., demographics variables) and top-down (personality and social relationships). The first defends that affective states influence and affect the more general cognitive evaluation. By contrast, the top-down considers that the satisfaction with life influences directly the affect experienced in daily lives (Diener et al., 1999). During the last decades, research has highlighted the interest in the bottom-up

perspective, which defends the relevance of affective experience for cognitive evaluation individuals make of their lives (Kahneman & Deaton, 2010).

Regarding the stability of well-being throughout life, empirical studies about well-being and in particular life satisfaction defend that they are relatively stable over time (Schimmack & Oishi, 2005); however some life events might have an influence on its stability (e.g., transitions, separations, bereavement). These stressful life events affected both cognitive and affective well-being negatively, but they differed in their strength (Luhmann, Hofmann, Eid, & Lucas, 2012). This aspect assumes special relevance in adolescents` period and for adolescents living in residential care, due to physical, neurodevelopmental and psychosocial changes during this period of time (Wood et al., 2018). Nevertheless, less attention has been provided to the period between adolescence and young adulthood (Trzcinski & Holst, 2008), since most studies focused on the development of adults' well-being (Diener, 2012).

Stability/Change of Well-being of Adolescents

Despite being considered a key aspect for quality of life, very few studies have focused on adolescence period and on the residential care population (Llosada, Casas & Montserrat, 2017). In a study about the development of life satisfaction from middle (15 years) to late adolescence (17 years) from the general population, Salmela-Aro and Tuominen-Soini (2010) found an intraindividual increase of life satisfaction during this period. Furthermore, the results showed a significant individual variation in the initial level of life satisfaction and in the intraindividual changes just for girls. In this case the lower the initial level of life satisfaction, the higher the increase. Whereas for boys the increase in life satisfaction was more linear, without significant variation regarding the linear change (Salmela-Aro & Tuominen-Soini, 2010). Regarding younger adolescents,

other studies found a decrease from early (about 13 years) to middle adolescence (about 15 years) in well-being (González-Carrasco, Casas, Malo, Viñas, & Dinisman, 2017; Shek & Liu, 2014; Tomyn, Norrish, & Cummins, 2013). This result was also confirmed in a cross-sectional cohort study, that found a decline of well-being in both affective and cognitive indicators in adolescents between 10 and 16 years (Chui & Wong, 2016; Goldbeck, Schmitz, Besier, Herschbach, & Henrich, 2007). Although there is a need for further evidence, decrease in well-being in middle adolescence may be explained, at least in part, by the reorganization of family attachments and the movement toward peers that initiates a developmental transition. However, in fact little is known about the longitudinal change of well-being during adolescence, and the majority of the studies in this age range used cross-sectional designs and did not take into account the context. This is particularly important for adolescents living in residential care.

Some studies point out that the context in which individuals are embedded influence their well-being and related aspects, namely life satisfaction (Casas & Bello, 2012; Montserrat, Casas, Malo & Bertran, 2011). Regarding the results of these studies it is possible to find mixed findings. Several studies found that children in residential care presented lower psychological well-being compared to the general population and to adolescents living in kinship and non-kinship foster care, especially regarding satisfaction with family and home (Dinisman, Montserrat & Casas, 2012; Llosada-Gistau, Montserrat, & Casas,2015;Llosada-Gistau, Casas & Montserrat, 2016;Schütz, Sarriera, Bedin, & Montserrat, 2015). Poletto and Koller (2011) found that children in care presented more negative affects compared to children living with their families. Also Dinisman, Montserrat and Casas (2012) found that children in residential care tend to present a higher amount of changes (in home, school and the area where they live) and consequent instability, which affect adversely their psychological well-being,

especially their interpersonal relationships and academic achievements. By contrast, in the Dinisman, Zeira, Sulimani-Aidan and Benbenishty (2013) study adolescents' psychological well-being was fairly positive. Regarding longitudinal studies some reported that well-being decreased over time, while others found the opposite, and others that well-being remained relatively stable over time. For example, findings from a longitudinal study about psychological, physical, social and cultural quality of life of 93 children at risk from abusive or neglectful homes, showed that the children who were removed from home improved incrementally over the 15 months compared to children who stayed at home (Davidson-Arad, 2005). Also Cashmore and Paxman (1996) showed that the overall happiness of young people who aged out of care in Australia declined a year after leaving care. Findings from a cohort study showed somewhat different findings; children with lengthier overall stay in care showed lower adult well-being (Dregan & Gulliford, 2011). Finally, Meade and Dowswell (2016) found that the adolescents` well-being remained stable over time. These inconsistencies of results are difficult to explain, but can result from the variability in adverse childhood experiences and/or less supportive placements within the care system (Dregan & Gulliford, 2011; McLean, 2003).

Quality of the Relationship with the Caregivers and Adolescents` Well-being

The literature has been showing that psychological constructs relevant for the development of adolescents (well-being, mental health, self-esteem) can present diverse trajectories for different groups of adolescents (Erol & Orth, 2011; Galambos, Barker, Krahn, 2006; Salmela-Aro & Tuominen-Soini, 2010). Studies with adolescents from the general population showed that adolescents with a good relationship with their mother tend to present a higher life satisfaction, but showed a higher decrease across the years.

Moreover, parental engagement and the quality of parent-adolescent relationships have effects regarding the change in well-being (Aquilino & Supple, 2001; Garcia, Serra, Garcia, Martinez, & Cruise, 2019). In summary, when adolescents reported more support and involvement from their parents, they tend to experience an increase in their well-being (Aquilino & Supple, 2001).

As noted above, adolescents in residential care are less satisfied with their own life and report less well-being compared to adolescents living with their families (Llosada, Montserrat & Casas, 2015; Shutz, Sarriera, Bedin & Montserrat, 2015). These differences in well-being can be related to difficulties in establishing stable affective bonds in the residential care context (Oriol, Sala-Roca, & Filella, 2014). In line with attachment theory, adolescents who perceive a responsive and genuine emotional support in the residential care setting, tend to develop more favorable patterns of adaptation (Bowlby, 1969). In fact, it is consensual in the literature that social support has an important role in the psychological functioning of adolescents, especially in face of stress and vulnerability (Degner, Henriksen, Ahonen, & Oscarsson, 2014). In the residential care context, social support is considered a relevant protective factor for mental health of children and adolescents (e.g., Costa, Mota, & Matos, 2019; Erol, Simsek, & Münir, 2010; Martín & Dávila, 2008; Simsek, Erol, Öztop, & Münir, 2007; Soldevila, Peregrino, Oriol, & Filella, 2013). Institutional staff and caregivers often function as significant attachment figures, promoting safety, emotional support and creating an environment of acceptance (e.g., Fergus & Zimmerman, 2005; Lanctôt, Annie Lemieux & Cécile Mathys, 2016; Mota, Costa, & Matos, 2016). The quality of the relationship established with significant figures is related with lower levels of emotional and behavioral problems (Assouline & Attar-Schwartz, 2020; Erol et al., 2010; Simsek et al., 2007), posttraumatic stress disorder (Gearing et al., 2015), deviant

behavior/behavioral problems (Erol et al., 2010; Mota, Costa, & Matos, 2016), positive adjustment to residential care (Marsh & Evans, 2009; Mulvey et al., 2010) and higher well-being (Dinisman et al, 2013; Ferreira, Magalhães, & Prioste, 2019; Fournier, Bridge, Kennedy, Alibhai, & Konde-Lule, 2014; Magalhães & Calheiros, 2017; Mota & Matos, 2015; Orúzar, Miranda, Oriol & Montserrat, 2019). Thus, caregivers in residential care may create routines and experiences that improve adolescents' well-being (Neimetz, 2011; Quiroga & Hamilton-Giachritsis, 2017). However, little is known about the importance of the quality of relationship of adolescents and their caregivers in residential care context.

Beyond social support, the literature has demonstrated that some socio-demographic variables, like age and gender, are relevant for children's and adolescents' well-being, although findings are inconsistent (Moksnes & Espnes, 2013; Steinmayr, Wirthwein, Modler, & Barry, 2019). Also, although time living in the institution may be related to well-being, very few studies controlled this variable on residential care studies. Furthermore, there is a lack of longitudinal studies investigating the development of well-being in adolescents living in residential care and what factors are associated with it over time. It is also relevant to emphasize that some of these studies exhibit limitations, because they measure well-being through overall life satisfaction. In fact, using a one dimensional approach to well-being, like life satisfaction, may limit the access to the interdependent related aspects of well-being. Finally, few studies considered relational dimensions, such as the quality of the relationship with caregivers in residential care.

The Present Study

As noted above, the literature in residential care field tends to be more focused on negative outcomes and less in adaptive functioning. Moreover, the general literature has been consistently suggesting the positive role of social support in adolescents' well-being and mental health outcomes (Demaray & Malecki, 2014; Wang, Wu, & Liu, 2003). However, research about this topic with adolescents living in residential care is still scarce. Furthermore, to the best of our knowledge, no study within a residential care context has analyzed well-being using a longitudinal design and tested the effect of the quality of the relationship with the caregivers in the development of adolescents` well-being. To address this gap, the present study sought to analyze the adolescents` well-being over time and tested the moderating effect of quality of relationship (from adolescents' perspectives) on well-being. Three key hypotheses were addressed in this study:

H1 - Adolescents` well-being will be stable over time;

H2 - Quality of relationship (at time 1) will be associated with higher well-being (at time 2 and time 3). More specifically, quality of relationship characterized by emotional closeness will be associated with higher levels of well-being (H2a). Quality of relationship characterized by relational tension will be associated with lower levels of well-being (H2b);

H3 - The relation between adolescents' well-being scores over time will be moderated by the quality of relationship. More specifically, when adolescents perceive high emotional closeness at time 1, there is higher stability in wellbeing during time than if they perceive low emotional closeness or high relational tension.

Method

Participants

The sample consisted of 306 adolescents at time 1 living in 19 residential care institutions in Portugal (59.2% "only female" typology, 19.9% "only male" and 20.9% gender mixed institutions) as a result of parental abandonment and/or parental neglect. Ages ranged from 12–18 years (M = 15.47, SD = 1.73), 225 were female (73.5 %) and 81 were male (26.5 %). The educational levels ranged from 4th to high level grade. One hundred ninety-nine (65.1 %) adolescents were from 4th to 9th grade, while 80 (26.1 %) were in secondary school (10th to 12th grade), 1 (0.3%) was in college and 16 (4.9%) were in vocational courses of education and formation. The length of placement in the current institution ranges from less than one month to 192 months (M = 32.29 months, SD = 39.36), with no information from nine adolescents. The sample is the same as the presented in a previous study (Costa, Melim, Tagliabue, Mota, & Matos, 2019), but this study involves different measures and one more assessment wave than the previous one.

At time 2 the sample comprised 154 adolescents (21.4% males and 78.6% females) aged 12–18 years (M = 15.19, SD = 1.738), 152 adolescents (49.67%) had missing data at time 2. At time 3, it comprised 106 adolescents (27.4% males and 72.6% females) aged 12–18 years (M = 14.79, SD = 1.84), 200 adolescents (65.36%) had missing data at time 3.

Several t-tests and chi-square tests were conducted to assess associations between characteristics of wave 1 respondents (gender, age, contact with family, have or not siblings, educational level) and participation status in wave 2 and in wave 3. The results showed that the attrition was mainly due to educational level. The only significant difference is between adolescents with education ranged from 5th to 6th level grade that participated in all the waves and the ones who participated only to T1 and T3 χ^2 (6) = 13.999; p = .030. Thus, the results showed that the less educated (5th to 6th level grade) gave up more than expected.

Measures

A socio-demographic questionnaire was used to collect personal data about adolescents. The data included information regarding age, gender, time living in residential care, as well as year of schooling currently attending.

The *Psychological Well-Being Manifestation Measure Scale* (PWBMMS; Massé et al., 1998; Portuguese version from Monteiro et al., 2006) is a twenty-five, self-report instrument designed to measure psychological well-being through the following dimensions: self-esteem (4 items; ‘‘I felt that others liked me and appreciated me’’); balance (4 items; ‘‘I lived at a normal rhythm, having not committed excesses’’); social involvement (4 items; I had goals and ambitions’’); sociability (4 items; ‘‘I easily connected with people around me’’); control of themselves and of events (4 items; ‘‘I was able to find an answer to my problems with no worries’’) and happiness (5 items; ‘‘I felt good, at peace with myself’’). Items are answered using a 5 point Likert scale, ranging from 1 (*never*) to 5 (*almost always*). In the present study, the well-being score represents a second order latent variable and results from the weighted sum of each dimension. Cronbach`s alphas were: well-being time 1 $\alpha = .94$; well-being time 2 $\alpha = .94$; well-being time 3 $\alpha = .94$. Findings showed that the instrument exhibits longitudinal invariance, namely: configural invariance, factor loading invariance, factors intercepts invariance and factors covariance invariance. Assessments of well-being were found to be equivalent across the time: baseline model: $\chi^2/df = 2.008$, CFI = .94, RMSEA = .05 (C.I = .047 - .068), full invariance model: $\chi^2/df = 1.864$, CFI = .94, RMSEA = .05 (C.I = .043 - .063).

The *Network Relationships Inventory* (NRI; Furman & Buhrmester, 1985) is a self-report measure which assesses the individual`s perceptions about the quality of the

relationship with different figures. In the present study we adapted it to the adolescent-caregiver relationship and we used only six dimensions: support (3 items; e.g., "How much do you turn to this person for support with personal problems"), intimacy (3 items; e.g., "How much do you talk about everything with this person"), nurturance (3 items; e.g., "How much this person helps you with things you can't do by yourself"), admiration (3 items; e.g., " How much does this person treat you like you're admired and respected"), criticism (3 items; e.g., "How much does this person point out your faults or put you down") and conflict (3 items; e.g., "How much do you and this person get upset with or mad at each other"). The scale contains 18 items, answered on a 5-point Likert scale, ranging from 1 (*little or none*) to 5 (*always*). Adolescents were asked to choose and answer in relation to a significant caregiver (not identified) from the residential care setting. Using Confirmatory Factor Analysis χ^2/df = 2.257, CFI = .83, RMSEA = .06 (C.I = .060 - .069), we reached a structure composed by two factors: Emotional Closeness (resulted from merging support, intimacy, nurturance and admiration; α = .92), and Relational Tension (resulted from merging criticism and conflict; α = .85). The results showed that the instrument exhibits longitudinal invariance, namely: configural invariance, factor loading invariance, factors intercepts invariance and factors covariance invariance between Emotional Closeness and Relational Tension were found to be equivalent across the time: baseline model: full invariance model: χ^2/df = 2.173, CFI = .83, RMSEA = .06 (C.I = .057 - .067).

Procedure

After receiving approval for this study from the authors' institutional Ethics Committee, the Social Services, and the residential care directors, institutions on an official list were randomly contacted to participate in this study. After being informed

about the objectives of the study, 19 of these institutions agreed to participate in the study. All ethical procedures regarding informed consent, confidentiality, anonymity and voluntary nature of participation in the study were guaranteed. Adolescents` written informed consent was signed by each adolescent and also by the legal guardian, namely the directors of each institution. The general objectives of the study were presented, and standard instructions were given by the researcher regarding the completion of self-report questionnaires. No financial compensation was involved. The order of the questionnaires was inverted randomly by groups in order to avoid bias in the results. The questionnaires were administrated in group in the institutional settings and the time spent completing the entire questionnaire was approximately 30 min. Adolescents with severe cognitive deficits did not participate in the study. This study involved three waves of data collection. Well-being was assessed six months and one year later. The length of the time lag between measurements was six months, as was typically used in other longitudinal studies about well-being or related constructs (e.g., Leung, K., Ip, & Leung, 2010; Paez et al, 2019). Further, it is consistent with Schotanus-Dijkstra et al. (2017) study, which showed benefits of an intervention on well-being six and one year later. Weisz et al. (2013) meta-analysis reveals that treatment gains achieved following intervention were maintained over the six months post-treatment.

Data analysis

The analyses were performed using IBM SPSS Statistics 24 and IBM SPSS Amos v.24. We removed 3 adolescents from the study, due to standardized residuals out of −3 and 3. The factorial structure of the measures was tested with confirmatory factor analysis (CFA); the results were presented previously. Well-being represent a second order latent variable, which result of weighted sum of each dimension. Data was

examined with Path Analysis. Model fit was examined in terms of chi-square test, comparative fit index (CFI) and root mean square error of approximation (RMSEA).

Given that adolescents are clustered in institutions, we tested if the well-being was nested in a higher level (residential care). Thus, intraclass correlation was performed (well-being T1: ICC = .06, DEFF = 1.15; well-being T2: ICC = .12, DEFF = 1.34 and well-being T3: ICC = .03, DEFF = 1.07). The result showed that adolescents` well-being is similar across institutions, indicating that adolescents` well-being was independent of the care setting in which they resided. Thus, Path Analysis was preferred over multilevel data-analytic options.

Results

Means, standard deviations, and correlations of study variables are presented in Table 1. Pearson's coefficient was used to analyze the correlations between well-being and the quality of the relationship. Table 1 shows some significant correlations, but no so high as to indicate multicollinearity problems. Descriptive results showed that quality of relationship characterized by emotional proximity (M = 3.87) scored higher than quality of relationship characterized by relational tension (M = 1.66). Regarding well-being, in general, adolescents presented high scores in time 1 (M = 3.55), time 2 (M = 3.87) and time 3 (M = 3.59).

- Insert Table 1 about here –

The final longitudinal model is presented in Table 2. The model presented a satisfactory fit: χ^2/df = 2.708, CFI = .949, RMSEA = .075 (C.I = .040 - .111). In the longitudinal model we controlled for the effects of gender, age, and time living in the

institution. We tested the effect of well-being at time 1 to analyze stability/change and then added the quality of the relationship at time 1 as a moderator. The results revealed that adolescents` well-being was unstable over time. Thus, adolescents' perception of well-being changed during one year, but especially during the first six months. This model also showed that the quality of the relationship had an impact on well-being over time. More specifically, emotional closeness, but not relational tension, demonstrated a weak but significant association with well-being at time 2. No significant effects were found between relational tension and well-being, and between emotional closeness and well-being one year later (time 3).

In this model we also tested the moderating effect of the quality of the relationship with caregivers (time1) between adolescent`s well-being over time (T2 and T3). The significant associations are presented in Table 2. No significant effects were found between the quality of the relationship and well-being time 3.

The interaction effects are graphically represented in Figure 1. When the adolescents report low emotional closeness with caregivers at time 1, adolescents tend to change more their perception of well-being in six months. By contrast, when the adolescents report high emotional closeness with their caregivers at time 1, their perception of well-being is slightly more stable. Thus, the emotional closeness contributes to keep the well-being in adolescents in residential care across the time. The model variables accounted for 31% of the variance of adolescents` well-being time 2 and 30% for adolescents` well-being time 3.

- Insert Table 2 and Figure 1 about here –

Discussion

This study aimed to examine the longitudinal development of adolescents' well-being across one year. The longitudinal model did not support the first hypothesis that adolescents` well-being would be stable over time. The results showed that there was low stability of adolescents` well-being during one year, especially during the first six months. Thus, adolescents in residential care are changing their perception of well-being over time. However, it is not surprising given that adolescence is a period in which oscillations can occur in psychological well-being. In fact, adolescence is marked by diverse changes and diverse stressful events, which can affect well-being (Luhmann, Hofmann, Eid, & Lucas, 2012). This aspect assumes more relevance for adolescents living in residential care, because the process of institutionalization and the adaptation to a new context is in itself a highly stressful life event and may affect the stability of well-being. In the model we controlled for the effect of age, gender and time living in the institution, since these variables could be associated with well-being (Inchley et al., 2016; Salmela-Aro & Tuominen-Soini, 2010). However no significant associations were found. Regarding the development of well-being during adolescence, literature points to some inconsistencies, especially regarding the effect of age and gender. Some studies did not find an association between gender and well-being (Steinmayr, Wirthwein, Modler & Barry, 2019; Trzcinski & Holst, 2008). Others found that the adolescents` well-being decreased with age (Inchley et al., 2016), or that students` psychological well-being tended to improve over time (Lerkkanen et al., 2018) and also that the general well-being of adolescents, usually remained relatively stable over time (Meade & Dowswell, 2016). Considering time living in the institution, our results also showed that it was not associated with well-being. Some previous studies had focused on the time children and adolescents remained in care. The results demonstrated the relevance of stability in child care (number of changes of institution) other than the

exact amount of time spent in protection system. In fact, findings do not show that living in care for the longest time, the worse the outcomes. By contrast studies revealed that children who have stability in child care (low changes of institution), present higher well-being (Montserrat, 2012). This result is interesting and in accordance with other results (Berger, Bruch, Johnson, James, & Rubin, 2009; Poletto & Koller, 2011), showing that child well-being did not vary by the length of placements. Thus, more important than the time living in the residential care seems to be the stability and the quality of care (Huynh et al., 2019).

This study also aimed to examine the contribution of the quality of the relationship with caregivers on well-being over time. The results showed that the quality of the relationship characterized by emotional closeness with caregivers demonstrated a weak but significant association with well-being at time 2. These results are consistent with previous studies, which emphasize the relevance of the quality of the relationship established between adolescents and caregivers in residential care as promoters of well-being (Ferreira, Magalhães & Prioste, 2019; Mota & Matos, 2015; Orúzar, Miranda, Oriol & Montserrat, 2018). The security provided by these new figures may contribute to adolescents' satisfaction, confidence and a perception that the residential care constitutes a safe place (Fergus & Zimmerman, 2005; Luthar, Cicchetti, & Becker 2000; Yunes, Miranda, & Cuello, 2004). Furthermore, these figures are considered also relevant to help adolescents to effectively cope with their difficulties and challenges (Bravo & Del Valle, 2003), enhance psychological functioning as self-efficacy, acquisition of new skills, and well-being (Ferreira, Magalhães & Prioste, 2019).

Despite the relevance of relational tension for the quality of the relationship, no significant effect was found between relational tension and adolescents' well-being over time. According to previous research higher levels of conflict was associated with lower

levels of well-being (Kelly, Mansell, & Wood, 2011; King, 2008). However, the impact of conflict in the relationships on well-being may depend on the levels and the source of the conflict (Folkman, 1984). Note that the mean of relational tension was low (M = 1.66) in a Likert scale ranged between 1 and 5. It is also important to note that these two different aspects of the quality of relationship are not mutually exclusive or at opposite ends of a continuum. In fact, it is possible an adolescent to become involved in relationships that are high in both emotional closeness and relational tension, low in both indices of quality, or high in one index and low in the other (Brady, Gruber, & Wolfson, 2016).

We also tested the moderation effect of quality of the relationship with caregivers on the change of adolescents` well-being over time. The results underscored the moderation effect of perceived emotional closeness with caregivers on the adolescents` well-being over time. More specifically, the quality of the relationship with caregivers characterized by emotional closeness moderated the relationship between well-being (time 1) and well-being (time 2). When the adolescents report low emotional closeness with caregivers at time 1, adolescents tend to change more their perception of well-being in six months. By contrast, when the adolescents report high emotional closeness with their caregivers at time 1, their perception of well-being is slightly more stable. Thus, the emotional closeness contributes to keep or enhance the well-being in adolescents in residential care over time. Thus, this study presents also advances on the importance of the quality of these relationships as a vehicle for the well-being of adolescents in residential care. Orúzar, Miranda, Oriol and Montserrat (2019) in a study with adolescents in residential care portrayed the moderator effect of experienced happiness and daily-life activities with caregivers on the relationship between self-control and well-being. This study emphasized the relevance of caregivers as an

external source of support, particular relevant to adolescents with impaired self-control, who through this support could increase their well-being. However, an affective bond based on trust needs to be created with the adolescents, consequently they enjoy the time spend with their caregivers (Soldevila et al., 2013). As it was mentioned before, the literature supports the idea that positive relationships with caregivers potentiate the development of more adaptive experiences, feeling of greater control, balance, adaptive coping skills, which translates into greater autonomy, self-sufficiency, and satisfaction with life (Legault, Anawati, & Flynn, 2006; Siqueira & Dell'Aglio, 2010).

Despite these relevant findings, the results showed that the quality of the relationship was only associated with well-being six months later. No significant effect was found one year later. These results may result from the caregivers' changes/turnover that could explain the absence of significant results one year later. In fact, we did not assess if the relationship with the preferential caregiver remained stable over time. This result may reflect also a pattern of inconsistency in reporting well-being, in part as a consequence of previous learned experiences of uncertainty and adversity.. From a sociodemographic point of view, Ottová-Jordan et al. (2015) found that well-being differences were associated with some circumstances of life, such as: concerns about the future, high expectations set by their context (family, school, and peers), school pressure, or country-specific characteristics (e.g., economic situation, unemployment rates, social insecurity), which can result in higher levels of perceived stress. It is possible that adolescents living in residential care are subject to greater emotional and circumstantial instability (e.g., turnover of caregivers; burnout of caregivers; change in the peer relationships, due to entrance and leave of adolescents), which contribute to the instability of their well-being during adolescence. The way these adolescents manage their relationships seems to be based on the internal models created

in their past experiences of ambivalent and inconsistent care, neglect, abuse or aggression. In fact, it is not surprising even in the presence of a more empathic, sensitive and consistent relationship, adolescents have difficulties in feeling loved and in creating a stable and consistent relationship over time (Tolmacz, 2001). Moreover, it is important to highlight the low variance explained by the variables of the study and the low magnitude of the effects. These results were surprising, however can be due the use of measures not adapted to this population and can be a result of instability of adolescents' experiences. Finally, despite the low variance explained and low magnitude of the effects the results revealed significant effects that showed that adolescents in residential care can find in the external context of the family, relationships with significant figures of affection, who are also able to contribute to stability of adolescents` well-being.

Limitations and future directions

Despite providing relevant information about the psychological well-being of adolescents in residential care and the relevance of the relationship with caregivers, this study presents several limitations. Even though the number of adolescents who participated in this study was satisfactory, taking into account the difficulty to access to the institutions, it would have been important to have a more gender balanced sample. The greater preponderance of females may limit the generalizability of the results. Furthermore, the exclusive use of self-report measures poses some limitations, which are susceptible to response and social desirability biases. It is also important to highlight that the quality of the relationship was only evaluated at time 1, so it is impossible to know the stability or instability of the relationship between adolescents and caregivers and their variance on well-being over time. Finally, the use of instruments not validated to this population could also influence the results.

Despite these limitations, some future directions for research could also reach out. Thus, future studies should include qualitative analyses with adolescents and caregivers in order to access information related to strengths and obstacles in the care and its effect on adolescents` well-being. Furthermore, future studies should not only assess well-being longitudinally, but also some of the observed covariates such as the quality of the relationship with caregivers. Additionally, it might be especially interesting to focus on different variables such as the attachment, emotion regulation of both adolescents and caregivers and the characteristics of the residential care context.

Implications for Practice

Concerning practical implications, this study allowed contributing to the reflection on caregivers' influence in an important aspect of positive functioning of adolescents in residential care, namely well-being. The present study highlighted the relevance to prepare caregivers to invest in these relationships during the placement in care. It becomes therefore extremely important that caregivers are prepared and trained to provide emotional support (e.g., sensitivity, consistency, affection) with adolescents. Caregivers should be provided with the conditions to develop these competences, through formal training, supervision and continuous education. In order to develop these competences, decision makers and caregivers should have an appropriate understanding of the developmental process and trajectories of these adolescents and avoid turnover and discontinued relations with them. Regarding policy implications, this study highlights the relevance of a greater investment in the quality of residential care services and professionals' training.

Conclusion

According to the literature psychological well-being is a relevant indicator of adolescent`s positive development (Park, 2004). In adolescents living in residential care this component can be compromised due to the experience of several stressors and/or adversity in their lives. Despite the growing recognition of its importance, this outcome has hardly been studied with adolescents who are living in residential care and little is known about what factors can contribute to the increase of psychological well-being over time. The current research showed that emotional closeness established with caregivers as perceived by the adolescents moderated the development of their well-being in the first six months. This finding that close relationships with caregivers contribute to better psychological well-being highlights the importance of strengthening these relationships in residential care. This implies the need of training the professionals working with this population. Thus, caregivers should be aware of the relevance that affective bonds created with the adolescents has for adolescents` well-being.

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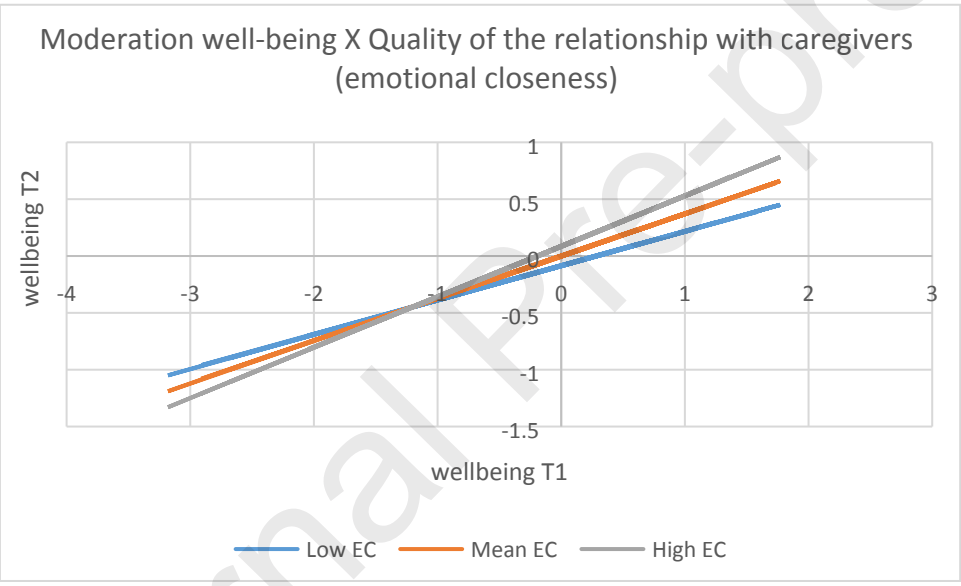
Figure 1. The moderating effect of adolescents' perception of the quality of the relationship with caregivers on the association between adolescents` well-being (T1) and well-being (T2)



Note: EC: emotional closeness

Table 1. Means, standard deviations and correlations between well-being and the quality of the relationship

	1	2	3	4	5
1- Emotional closeness	-				
2 - Relational tension	-.13*	-			
3 – Well-being (T1)	.18**	.02	-		

4 – Well-being (T2)	.19**	-.03	.53**	-	
5 – Well-being (T3)	.09	-.06	.13*	.54**	-
Mean	3.87	1.66	3.55	3.87	3.59
SD	.91	.82	.79	.75	.72

Table 2. Model of moderation effect of adolescents' perception of the quality of the relationship on the association between adolescents` well-being over time

	Model			
	Well-being T2		Well-being T3	
T1 variables	β	*p*	β	*p*
Gender	.007	.929	-.050	.442
Age	-.032	123	-.006	.739
Time living in the institution	.001	.487	.541	.000
Adolescents` well-being	.375	.000	-	-
Adolescents` emotional closeness	.078	.038	-.001	.975
Adolescents` relational tension	-.029	.453	-.001	.961
Adolescents` well-being X Adolescents' emotional closeness	.071	.041	.025	.377
Adolescents` well-being X Adolescents' relational tension	-.019	.590	-.013	.648
T2 variables	-	-	-	-
Adolescents` well-being	-	-	.424	.000
Variance	.31		.30	
Model Fit	χ^2/df = 2.708, CFI = .949, RMSEA = .075 (C.I = .040 - .111)			

Highlights

Adolescents` well-being was unstable over time.

The quality of the relationship had an impact on well-being over time.

When the adolescents report low emotional closeness with caregivers at time 1, adolescents tend to change more their perception of well-being in six months.

When the adolescents report high emotional closeness with their caregivers at time 1, their perception of well-being is slightly more stable.

The emotional closeness contributes to keep the well-being in adolescents in residential care across the time.

Author statement

Mónica Costa: Methodology, Writing - Original Draft, funding acquisition; **Semira Tagliabue:** Methodology, formal analysis, Writing - Review & Editing; **Paula Mena Matos:** Writing - Review & Editing; **Catarina Pinheiro Mota:** Writing - Review & Editing