

## The Relation Between Helicopter Parenting and Satisfaction with Life in Emerging Adults Living with Their Parents: The Moderating Role of Gender and Age Group

Rafaela Cardoso Garcia<sup>1</sup>, Margarida Pedroso de Lima<sup>2</sup>, Carlos Carona<sup>2</sup>

<sup>1</sup>University of Coimbra - Faculty of Psychology and Educational Sciences, University of Coimbra, Portugal, <sup>2</sup>University of Coimbra - Center for Research in Neuropsychology and Cognitive and Behavioral Intervention (CINEICC)

**Correspondence:** [rafaela.ci@hotmail.com](mailto:rafaela.ci@hotmail.com); Tel.: + 239 851 450; Fax.: + 239 851 465

**Received:** July 26, 2022; **Accepted:** September 28, 2022

### Abstract

**Objective.** Over the last couple of decades, a trend of emerging adults living with parents has been rising. However, little is known about the developmental specificities and impact of parenting practices in this context. The objectives of this study were: to compare the levels of helicopter parenting and the levels of life satisfaction by gender (men versus women) and by age group (late adolescents versus young adults); to analyze the relationship between helicopter parenting, life satisfaction levels and age; and to investigate the moderating role of gender and age group in the relationship between helicopter parenting and life satisfaction. **Materials and Methods.** Self-report questionnaires were administered to a sample of 173 emerging adults (aged 18-29) living with their parents in Portugal. In order to examine differences in helicopter parenting and levels of life satisfaction, Student's t-test was performed for independent samples. To analyze the association between helicopter parenting, life satisfaction and age, Pearson's correlation coefficients were calculated. To detect possible interaction effects, regression-based analyses were performed; the SPSS macro PROCESS was used to optimize this procedure. **Results.** Life satisfaction levels differed according to age group, with late adolescents reporting higher levels of life satisfaction than young adults. Helicopter parenting was negatively correlated with life satisfaction, and life satisfaction was negatively correlated with age. The developmental variables of gender and age group moderated the association between helicopter parenting and life satisfaction. **Conclusions.** Interventions with emerging adults that aim to prevent the negative effects of helicopter parenting and increase life satisfaction must account for the developmental specificities associated with gender roles and different age groups.

**Key Words:** Emerging Adulthood ■ Cohabitation ■ Helicopter Parenting ■ Life Satisfaction.

### Introduction

In recent decades, the number of young adults living in their parents' homes has increased, especially in more traditional ethnocultural environments, as may be found in Southern Europe (1). In Mediterranean countries, this developmental transition tends to occur within the family of origin (2), which can lead to greater involvement of parents in their children's lives. However, parental involvement that is inappropriate to the developmental needs of emerging adulthood can interfere with the levels of adult children's life satisfaction (3).

Although one of the most popular (and yet empirically unsupported) justifications for this phenomenon of cohabitation is that young people refuse to grow up (4), several studies point to notable changes (e.g., economic, social, cultural and political dynamics) in the structure of contemporary adult life, which altogether imply a reframing of developmental tasks that typically characterize the transition to adulthood (5). Traditionally, the transition to adulthood is marked by a series of developmental events, namely: entering the professional world; leaving their parental household; and getting married and starting a new family (6). However, during

the 21<sup>st</sup> century, traditional references that used to be adopted to outline the transition to adulthood have been greatly challenged (7). Thus, the period of emerging adulthood between the ages of 18 and 25, as initially defined by Arnett (8), appears to be no longer comprehensively applicable, particularly to the European context (2), which has led to a reformulation of the conceptualization of this period of development. Recently, emerging adulthood has come to be seen as a longer period, defined between the ages of 18 and 29 years old, and characterized by a relative instability in romantic relationships, work and housing (6). According to the research carried out by Simpson (2018), young adulthood is a time of great changes in the basic structures of the brain, suggesting that, for example, an 18-year-old individual will not be the same at the age of 25 in terms of feeling, thinking, and acting. Thus, the investigations point to a sequence of developmental changes that can be grouped into three phases: adolescence (ages puberty -18); late adolescence (ages 18 to 25) and young adulthood (age 26 +) (9). Additionally, studies have shown that, despite the experience of transition to adulthood being increasingly similar between men and women, there is still considerable heterogeneity in the process of socialization between genders (10). In this context, it is important to understand the effects of helicopter parenting on the adaptation outcomes of individuals at this stage of development, considering age and gender, in order to prevent the negative effects (e.g., lower well-being) of this type of parenting and to foster life satisfaction levels in emerging adults, while bearing in mind that life satisfaction is relatively stable throughout adulthood (11, 12).

During the transition to adulthood, the way young people face life challenges can be affected by the type of parenting they have been submitted to (13). According to Segrin and colleagues (2012), a type of parenting in which the parents' behaviors are inappropriate for the developmental stage of their children results in confusing family systems, in which the parents' goals and desires replace those of the children, as observed in excessive advice and directive behavior from parents (14). This type of

parenting has been labelled as "helicopter parenting" because parents "hover" over their children's lives, as if they were "scout helicopters". Therefore, helicopter parenting may work as a type of psychological control, as it intends to, and does indeed shape, the way children act, feel and think, which slowly inhibits the autonomy and psychological growth that are expected to occur during emerging adulthood (15). The self-determination theory suggests that, for a successful life, individuals must satisfy three basic psychological needs: autonomy, social competence, and social connection (16). However, the satisfaction of these needs can be compromised by the overinvolvement and excessive protection of parents (3). For example, empirical evidence shows that living with parents after adolescence affects individuals' motivational processes and, consequently, changes the way they experience positive events and the way they assess their own lives (17). The subjective perception that individuals have about their own life is called "subjective well-being", one of the main indicators of satisfaction with life (18). Thus, although some parents assume that loving their children means taking charge of their lives, with the intention of providing them well-being and a successful life (19), this type of behavior is likely to ultimately have a negative impact on their life satisfaction, mood, and acquisition of basic life skills (20). Although we have emphasized the less positive aspects of helicopter parenting so far, it should be noted that this type of parenting is, in essence, a well-intentioned attempt to reduce the less positive aspects of life and increase the offspring's chances of success (21). Thus, helicopter parenting can be perceived positively (22) and as having a purpose in the family system (20). In other words, helicopter parenting is defined in degree, as its benefits or harms depending on the degree to which it is exercised (14).

Studies show that this impact on individuals can vary according to age and gender. For example, from the age of 18, individuals begin to perceive stressful situations as less severe, as their executive functions are more mature, making them able to deploy suitable behaviors to solve problems and

relieve depressive symptoms (23). On the other hand, the negative effects of this type of parenting can also be mitigated by the perception of emerging adults that they have control over their environment, which is the case of those who manage a financially independent life (24, 25, 26). This seems particularly true for girls, as they are more vulnerable to the negative effects of parental over-involvement, (25). In addition, empirical evidence has shown that parenting strategies vary depending on the gender of the children. Specifically, studies suggest that parents tend to encourage more autonomy in boys, and to increase supervision and control of girls' behaviors (27).

The current study targeted emerging adults between the ages of 18 and 29 who lived with their parents, thus encompassing a wide age range and taking into account the fact that emerging adulthood extends increasingly over time (6). Therefore, this study aimed to compare the levels of helicopter parenting and life satisfaction by gender (men versus women) and age group (late adolescents versus young adults); to analyze the association between helicopter parenting, life satisfaction and age; and to investigate the moderating role of gender and age group in the relationship between helicopter parenting and life satisfaction.

According to these objectives and considering the literature reviewed, some hypotheses were outlined. Thus, it was expected that women would report higher levels of helicopter parenting compared to men (hypothesis 1), and that young adults would report higher levels of life satisfaction than late adolescents (hypothesis 2). It was also anticipated that helicopter parenting would correlate negatively with life satisfaction (hypothesis 3). Due to the scarcity of literature regarding the moderating role of gender and age group in the relation between helicopter parenting and life satisfaction in emerging adults, no hypotheses were established for the moderation analyses.

## Method

### *Participants and Procedure*

The 173 participants in this study were recruited by publishing a direct access link to the online questionnaire, via social networks such as Facebook and Instagram, between December 2021 and February 2022. All instruments were applied only once to each participant, using the non-probabilistic method of snowball sampling. Snowball sampling is cost-effective since this process is very effective to find participants from the general community. Participants were informed about the main purpose of the study, the voluntary and confidential nature of their participation and the absence of any compensation involved. All procedures performed in this study were in accordance with the ethical standards of the institutional research committee and the Order of Portuguese Psychologists, as well as with the Declaration of Helsinki and its later amendments for research involving human participants. The inclusion criteria were: (i) being between 18 and 29 years old; and (ii) currently living with their parents; and (iii) being able to read and understand Portuguese. Consequently, the sample ended up consisting of 173 emerging adults who lived with their parents, aged between 18 and 29 ( $M=23.08$ ,  $SD=2.99$ ), of which 133 were late adolescents ( $N=133$ , 76.9%) and 40 were young adults ( $N=40$ , 23.1%). In this sample, 52 participants were male ( $N=52$ , 30.1%), 120 were female ( $N=120$ , 69.4%), and 1 was non-binary ( $N=1$ , 0.6%). Concerning their romantic relationships, 64.2% ( $N=111$ ) reported not being involved in any relationship of that kind. Regarding the professional status, 39.3% ( $N=68$ ) were employed, 56.1% ( $N=97$ ) were students, and 4.6% ( $N=8$ ) were unemployed. The sociodemographic characteristics of the sample are presented in Table 1.

Table 1. Sociodemographic Characteristics of the Sample

Characteristics	Late Adolescents / Young Adults (N=173)
Age (M/DP) <sup>*</sup>	23.08 (2.99)
Age Group: N (%)	
Late Adolescents (18-25)	133 (76.9)
Young Adults (26-29)	40 (23.1)
Gender: N (%)	
Male	52 (30.1)
Female	120 (69.4)
Non-binary	1 (.6)
Nationality: N (%)	
Portuguese	165 (95.4)
Brazilian	6 (3.5)
Italian	2 (1.2)
Relationship Status: N (%)	
Dating relationship	62 (35.8)
Without a dating relationship	111 (64.2)
Level of education: N (%)	
Secondary school or professional technical school	63 (36.4)
Bachelor's degree	96 (55.5)
Master's degree	14 (8.1)
Employment Status: N (%)	
Working	68 (39.3)
Studying	97 (56.1)
Unemployed	8 (4.6)
Monthly income: N (%)	
Without a monthly income	108 (62.4)
200€-400€	10 (5.8)
400€- 600€	5 (2.9)
600€-800€	23 (13.3)
800€ -1000€	15 (8.7)
1000€ -2000€	12 (6.9)
Reasons for parental cohabitation: N (%)	
Financial reasons	136 (78.6)
Comfort	24 (13.9)
Inability to live alone	9 (5.2)
Others	3 (1.7)

<sup>\*</sup>Mean/Standard Deviation.

## Instruments

**Sociodemographic Data.** Sociodemographic data (e.g., age, gender, nationality, romantic relationship status, monthly income, reasons for parental cohabitation) were collected through a self-report form. Respondents answered by selecting one of several possible response options and by writing short answers.

**Helicopter Parenting Instrument (HPI).** The Helicopter Parenting Instrument (28, 29) was used to assess the offspring's perception of helicopter parenting, i.e., excessive and inappropriate parental behaviors concerning the offspring's development stage. It is a self-report instrument, originally consisting of 15 items (e.g., "My parents try to make all the most important decisions for me.") rated on a seven-point Likert scale (between 1-strongly disagree and 7- I totally agree). The version adapted to the Portuguese population (aged between 18 and 25), contains only 13 items, but uses the same response scale. Higher scores on the overall scale correspond to a higher level of helicopter parenting (29). In this study, adequate levels of internal consistency were observed ( $\alpha = 0.77$ ).

**Life Satisfaction Scale.** The Satisfaction with Life Scale (30, 31) is the most widely used instrument to assess the cognitive appraisal of subjective well-being. Respondents must respond to 5 items (e.g., "My life looks, in almost everything, like what I would like it to be."), in a response scale ranging from 1-strongly disagree to 5- I totally agree. The score obtained on this scale can vary between 5 and 25 points and the higher the score, the greater the satisfaction with life (32). In this study, adequate levels of internal consistency were observed ( $\alpha = 0.82$ ).

## Statistical Analysis

To estimate the required sample size, based on a priori definitions of the magnitude of effect and the intended statistical procedures, G\*POWER 3.1.9.7 was used (32, 33). For an effect size of 0.30 (correlational study) and  $P=0.05$ , the sample should have at least 134 subjects. Data analysis was performed using the Software Statistical Package for the Social

Sciences (SPSS) 25.0 for Windows. Descriptive statistics were obtained to perform the sociodemographic characterization of the sample. Regarding the analyses that involved gender identity, only the traditional genders (male and female) were considered; however, the non-binary subject was included in the remaining analyses. Internal consistency was determined by calculating Cronbach's Alpha Coefficient. According to DeVellis (34), alpha values between 0.65 and 0.70 were considered acceptable; between 0.70 and 0.80 were considered good; and between 0.80 and 0.90 were considered very good. To investigate the existence of statistically significant differences in helicopter parenting and in the levels of satisfaction with life by gender and age group, a Student's t-test for independent samples was performed. The effect sizes of such differences were determined with the Cohen's *d* test (35). According to Cohen's proposal (35), the following parameters were considered: 0.20 (small); 0.50 (average); 0.80 (high).

To analyze the association between the variables, a Pearson's correlation coefficients were calculated. Cohen's (35) criteria were used to interpret the effect size of correlations, considering the following parameters: ±0.10—±0.29 (weak); ±0.30—±0.49 (moderate); and ±0.50—±1.0 (strong).

For interaction effects, multiple regression analyses were performed. Before carrying out the moderation analyses, the independent variable and the moderating variables were mean centered to calculate the products. After identifying significant interaction effects, post-hoc probing was conducted to ascertain and depict the respective moderating effects (36). This procedure was improved by using PROCESS (37), a computational tool that provides an SPSS macro for examining various statistical models (e.g., simple moderation is described as "model 1"), based on bootstrapping procedures (i.e., 5000 bootstrap samples). To interpret the size of main and interaction effects (moderation), Cohen's criteria (38) were used, considering:  $R^2 \geq 0.02$  (small),  $R^2 \geq 0.13$  (medium),  $R^2 \geq 0.26$  (large). Since age was related to the outcome variable (life satisfaction), it was introduced as a covariate in the moderation model (39). A minimum

confidence interval of 95% was considered for all analyses performed in this study.

## Results

### Comparative Analyzes

The Student's t-test analyses revealed statistically significant differences in life satisfaction between age groups ( $t=2.23$ ;  $P=0.03$ ; Cohen's  $d=0.55$ ), where late adolescents obtained higher mean values ( $M=17.73$ ;  $SD=4.11$ ) compared to young adults ( $M=16.05$ ;  $SD=4.38$ ). There were no statistically significant differences between genders.

### Correlations Between Variables

Table 2 presents the matrix of correlations between helicopter parenting, life satisfaction levels and age. Helicopter parenting revealed a weak negative correlation with life satisfaction, which in turn correlated negatively and weakly with age. Life satisfaction showed a weak negative correlation with age.

Table 2. Correlation Matrix for Helicopter Parenting, Life Satisfaction and Age (N= 173)

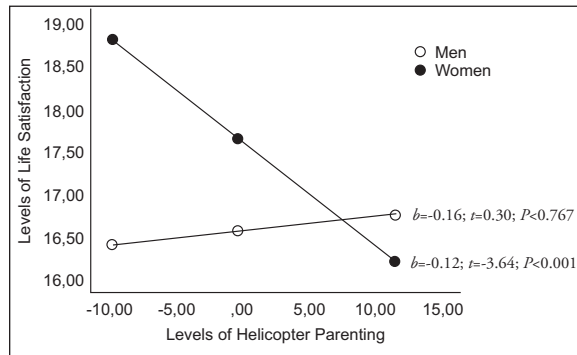
Variables	1	2	3
1. Helicopter Parenting	-	-	-
2. Life Satisfaction	-0.21*	-	-
3. Age	-0.10	-0.19†	-

\* $P < 0.05$ ; † $P < 0.01$ .

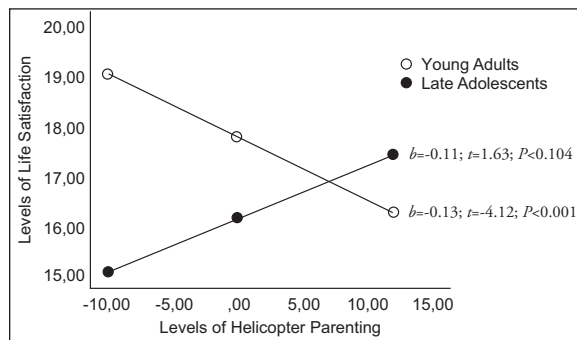
### Main Effects and Interaction Effects of Helicopter Parenting, Gender and Age on Life Satisfaction

The results showed that gender ( $F(4,167)=5.84$ ;  $P < 0.001$ ;  $R^2=0.12$ ) and age group ( $F(3,169)=8.39$ ;  $P < 0.001$ ;  $R^2=0.13$ ) moderated the relationship between helicopter parenting and life satisfaction.

The interaction between helicopter parenting and gender was statistically significant ( $b=-0.14$ ;  $t=-2.14$ ;  $P=0.034$ ). Post-hoc analyses revealed that the association between helicopter parenting and life satisfaction was significant for women ( $b=-0.12$ ;



**Fig. 1** The Moderating Effect of Gender on the Association Between Helicopter Parenting and Life Satisfaction.



**Fig. 2.** The Moderating Effect of Age Group on the Association Between Helicopter Parenting and Life Satisfaction.

$t=-3.64$ ;  $P<0.001$ ), but not for men ( $b=-0.016$ ;  $t=0.30$ ;  $P=0.767$ ). The link between helicopter parenting and life satisfaction was moderated by age group ( $b=0.23$ ;  $t=3.22$ ;  $P=0.002$ ). Post-hoc probing revealed that the association between helicopter parenting and life satisfaction was significant for late adolescents ( $b=-0.13$ ;  $t=-4.12$ ;  $P<0.001$ ), but not for young adults. These moderation results are graphically depicted in Figures 1 and 2, according to the results obtained through the respective analyzes in PROCESS.

## Discussion

Firstly, contrary to hypothesis 1, when comparing men and women, there were no differences in levels of helicopter parenting. The rejection of this hypothesis may be related to the fact that parent-child cohabitation is increasingly common, making parental overinvolvement something to be expected

in their children's lives, regardless of gender. In addition, the traditional expectation that girls are more controlled by their parents (40) can attenuate the perception of helicopter parenting through its normalization, which could result in similar perceptions between boys and girls, even if parenting practices are distinct.

Concerning hypothesis 2, the idea that there are statistically significant differences in life satisfaction by age group was partially confirmed. The results revealed that the levels of satisfaction with life differ moderately between age groups. However, it is the late adolescents who have higher levels compared to young adults. There seems to be no consensus among researchers as regards to the role of age in life satisfaction. Some studies suggest that life satisfaction is relatively stable throughout adulthood (11), others suggest fluctuations throughout life (41). On the other hand, a study carried out by Galambos and colleagues (42) points to an increase in psychological well-being between the ages of 18 and 25, which seems to be associated with greater satisfaction with life. A possible explanation for the result obtained in this study is the fact that young adults feel increasingly pressured to stabilize their lives (e.g., engaging in a long-term relationship, finding a stable job), which leads to emotions of anxiety and poignancy, due to the assumption that they should be more mature and independent than they really are (6). This seems to occur, above all, as they approach the age of 30, since in European countries, such as Portugal, this age marks the end of emerging adulthood and is socially expected to give way to marriage and parenthood (43). For these reasons one may infer that late adolescents do not feel so pressured to leave their parents' home, even when reaching young adulthood, which may eventually afford them higher levels of life satisfaction than in the case of young adults.

Secondly, as conjectured in hypothesis 3, a negative relation between helicopter parenting and life satisfaction was observed, as already documented in other studies (44). In this case, higher levels of helicopter parenting seem to be associated with more anxiety and depressive symptoms, emotional dysregulation and dissatisfaction with life (45),

which may be justified by the fact that inadequate parental involvement impairs the developmental of fundamental psychological needs, such as autonomy, social competence, and social connection (16). Furthermore, there was also a negative association between age and life satisfaction, which corroborates with the results found for hypothesis 2.

Thirdly, moderation analyses showed that gender and age group play a moderating role in the relationship between helicopter parenting and life satisfaction. Concerning the moderating role of gender, this study showed that the higher the levels of helicopter parenting, the lower the levels of satisfaction with life. However, this is only valid for women, not for men. Although to the best of our knowledge no study addressed this question previously, some parallel investigations have suggested divergence in the experience of helicopter parenting between women and men (27, 46), which may end up affecting life satisfaction levels unevenly across genders. According to the biosocial theory, the definition of gender roles established by society results in the development of gender stereotypes and, consequently, in different behavioral patterns towards women and men (40). This gender-differentiated socialization process can lead to: the application of different parenting strategies; the imposition of differentially stressful developmental tasks; and socially-embedded discriminations in identity formation (47). As an example, and according to the literature, girls tend to be more supervised and less encouraged to be autonomous than boys (48), and are usually driven to identify with the role of caregivers and to distinctively value affection and interpersonal relationships (e.g., getting married and having children early) (49). On the other hand, boys are commonly led to identify with more instrumental tasks and to value characteristics such as assertiveness and independence (50). In addition, domestic tasks are traditionally assigned to girls, which can prevent boys from acquiring experience in this domain, and eventually make the experience of helicopter parenting appraised as beneficial and as a source of comfort. Girls, on the other hand, find it difficult to consider helicopter parenting as a source

of satisfaction, not only because girls show an earlier development of executive functions if compared to boys (51), being therefore more mature, but also because women have increasingly conquered their emancipation, and to some extent eroded traditional gender roles. Thus, either due to maturation processes or the social need for emancipation, girls tend to show higher levels of dissatisfaction with parental overinvolvement. Additionally, empirical evidence has suggested that gender stereotypes, when embodied, influence thoughts, feelings and behaviors, which causes differences between men and women in terms of mental health (52), with women systematically reporting higher levels of negative emotions than men throughout their lives (53). Regarding boys, studies show that they are expected to react to negative events in a stoic way without showing weakness (54). Perhaps for this reason, boys tend to have relationships with their parents which are less intimate (47). On the other hand, girls may feel pressured to act in accordance with their parents' demands, as they maintain closer relationships with them. Therefore, it is speculated that levels of satisfaction with life may be compromised, since girls must maintain a balance between their needs for autonomy and the demands arising from parenting, which may in turn be aligned with gender stereotypes. This corroborates studies showing that parental psychological control is especially harmful to girls, when compared to boys (46).

As regards the moderating role of age group, this study showed that the higher the levels of helicopter parenting, the lower the levels of satisfaction with life. However, this is valid only for late adolescents, not for young adults. This result is supported by empirical evidence demonstrating that from late adolescence to young adulthood, individuals become increasingly emotionally stable (55) and are more able to suppress unwanted emotions and thoughts (24). Thus, as they grow older, individuals begin to use increasingly complex strategies to deal with problematic situations (56), which eventually predicts higher levels of life satisfaction (57). Thus, it is speculated that young adults may have learned to make a greater use of interpersonal coping

strategies such as resignation and/or negotiation to minimize the negative impact of helicopter parenting; conversely, late adolescents, due to the lesser maturation of cognitive control and the resulting impulsivity (58), are generally not so able to plan and implement such strategies. In other words, it is expected that older chronological age will correspond to greater brain maturation and, consequently, a greater capacity to perceive stressors (e.g., helicopter parenting) as less severe and, therefore, less detrimental on subjective well-being.

### ***Strengths, Limitations and Future Studies***

The data obtained in this investigation may be useful in the elaboration and improvement of intervention programs with emerging adults and their families of emerging adults, since the understanding of gender roles and age-group specificities allow clinicians to meet the health needs of emerging adults, preventing negative effects of helicopter parenting, particularly on life satisfaction.

Despite its contributions, this study has some limitations. First, the sampling frame relied exclusively on online procedures, thus excluding those individuals with the lowest levels of digital literacy, and those who, through lack of interest or opportunity, do not use social media at all. Second, data were exclusively collected through self-report measures, as some individuals may not have complete awareness of their emotional responses, thus reducing the accuracy of such reports; moreover, self-reports may be easily affected by social desirability factors and may not fully reflect what participants actually feel, think or do. Third, our study's sample has a relatively small number of participants, obtained through a non-probabilistic sample, and was embedded in the Western European cultural context, which may impair its external validity by limiting the generalizability of findings, and decrease the statistical power in moderation analyses. Therefore, it would be desirable to reassess these results in a larger and more representative sample of the population, in terms of gender and age group. To make the study more comprehensive, it would be relevant to also target emerging adults who have already

lived on their own, but, for some reason, returned to the parental household. Specifically, It would be pertinent to carry out a longitudinal study to monitor the development of emerging adults who live with their parents, allowing for a more in-depth assessment of causal relations. Also, in future studies, it could be interesting to examine other subgroup specificities, taking into account other measured variables in the context of the relationship with the dependent variables (e.g., relationship status, employment status, reasons for parental cohabitation). Additionally, it would be important to investigate whether there are other moderating variables in the association between helicopter parenting and life satisfaction (e.g., interpersonal emotion regulation skills, self-concept, peer relatedness).

### **Conclusion**

Life satisfaction seems to be negatively associated with helicopter parenting during young adulthood. Men and women do not show statistically significant differences in their levels of helicopter parenting or life satisfaction. Late adolescents report higher levels of life satisfaction compared to young adults. Women and late adolescents, contrary to men and young adults, report lower levels of life satisfaction when they experience higher levels of helicopter parenting. Therefore, clinicians should be cognizant of gender and age-related specificities when attending to the health needs and well-being of emerging adults, particularly by challenging gender stereotypes, contextually assessing the functional value of parental cohabitation, and facilitating adaptive coping in emerging adults living with parents.

**Acknowledgements:** This study was supported by the Center for Research in Neuropsychology and Cognitive and Behavioral Intervention (CINEICC) – University of Coimbra (UIDB/PSI/00730/2020)

**Authors' Contributions:** All persons who meet authorship criteria are listed as authors, and all authors certify that they have participated sufficiently in the work to take public responsibility for the content, including participation in the concept, design, analysis, writing, or revision of the manuscript.



Rafaela Garcia: Conceptualization, data acquisition and curation, formal analysis, writing (original draft); Carlos Carona: Conceptualization, methodology, formal analysis, writing (review and editing), validation; Margarida Pedrosa de Lima: Conceptualization, methodology, writing (review and editing), supervision.

**Conflict of Interest:** C.C. is a member of the “Central European Journal of Pediatrics” editorial board, but did not take part in the review or decision-making process of this paper.

## References

1. Mitchell BA, Wister, AV, Gee EM. The Ethnic and Family Nexus of Homeleaving and Returning among Canadian Young Adults. *Can J Sociol.* 2004;29(4):543.
2. Brandão T, Saraiva L, Matos PM. O prolongamento da transição para a idade adulta e o conceito de adulez emergente: Especificidades do contexto português e brasileiro. *Anal Psicol.* 2012;3:301-13.
3. Schiffrin HH, Liss M, Miles-McLean H, Geary KA, Erchull MJ, Tashner T. Helping or Hovering? The Effects of Helicopter Parenting on College Students’ Well-Being. *J Child Fam Stud.* 2014;23(3):548-57.
4. Srinivas, V. Explaining the Increase in Young Adults Living with Parents. *J Econ Issues.* 2019;53(4):1017-28.
5. Arnett, JJ, Robinson O, Lachman, ME. Rethinking adult development: Introduction to the special issue. *Am Psychol.* 2020;75(4):425-30.
6. Arnett JJ, Žukauskiene R, Sugimura K. The new life stage of emerging adulthood at ages 18-29 years: Implications for mental health. *Lancet Psychiatry.* 2014;1(7):569-76.
7. Grum B, Temeljtov-Salaj A. Intergenerational living: An intercultural comparison. *Urbani Izziv.* 2016;27(1):162-75.
8. Arnett JJ. Emerging adulthood: A theory of development from the late teens through the twenties. *Am Psychol.* 2000;55(5):469-80.
9. Massachusetts Institute of Technology [<https://hr.mit.edu/>]. Massachusetts: MIT [updated 2018; cited 2022 Sep 30]. MIT Human Resources. Available from: <https://hr.mit.edu/static/worklife/youngadult/changes.html>.
10. Schoon I. Gender and the Transition to Adulthood: A Diverse Pathways View. In: Scott RA, Kosslyn SM, editors. *Emerging Trends in the Social and Behavioral Sciences.* Wiley; 2015. p.1-15.
11. Baird BM, Lucas RE, Donnellan MB. Life Satisfaction Across the Lifespan: Findings from Two Nationally Representative Panel Studies. *Soc Indic Res.* 2010;99(2):183-203.
12. Jewell S, Kambhampati US. Are Happy Youth Also Satisfied Adults? An Analysis of the Impact of Childhood Factors on Adult Life Satisfaction. *Soc Indic Res.* 2015;121(2):543-67.
13. Cook EC. Understanding the Associations between Helicopter Parenting and Emerging Adults’ Adjustment. *J Child Fam Stud.* 2020;29(7):1899-913.
14. Segrin C, Wozidlo A, Givertz M, Bauer A, Taylor Murphy M. The Association Between Overparenting, Parent-Child Communication, and Entitlement and Adaptive Traits in Adult Children. *Fam Relat.* 2012;61(2):237-52.
15. Soenens B, Vansteenkiste M. A theoretical upgrade of the concept of parental psychological control: Proposing new insights on the basis of self-determination theory. *Dev Rev.* 2010;30(1):74-99.
16. Deci EL, Ryan RM. The “What” and “Why” of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychol Inq.* 2000;11(4):227-68.
17. Nikolaev B. Living with mom and dad and loving it. . .or Are you?. *J Econ Psychol.* 2015;51:199-209.
18. Diener E. New findings and future directions for subjective well-being research. *Am Psychol.* 2012;67(8):590-7.
19. Love H, May RW, Cui M, Fincham FD. Helicopter Parenting, SelfControl, and School Burnout among Emerging Adults. *J Child Fam Stud.* 2020;29(2):327-37.
20. Cline F, Fay J. *Parenting with love and logic: Teaching children responsibility.* Colorado: Navpress; 1990.
21. Lemoyne T, Buchanan T. Does “hovering” matter? Helicopter parenting and its effect on well-being. *Sociol Spectr.* 2011;31(4):399-418.
22. Padilla-Walker LM, Nelson LJ. Black hawk down? Establishing helicopter parenting as a distinct construct from other forms of parental control during emerging adulthood. *J Adolesc.* 2012;35:1177-90.
23. Vannucci A, Flannery KM, Ohannessian, CMC. Age-varying associations between coping and depressive symptoms throughout adolescence and emerging adulthood. *Dev Psychopathol.* 2018;30(2):665-81.
24. Aquilino WS, Supple KR. Parent-Child Relations and Parent’s Satisfaction with Living Arrangements When Adult Children Live at Home. *J Marriage Fam.* 1991;53(1):13.
25. Conger RD, Conger KJ, Matthews LS, Elder GH. Pathways of Economic Influence on Adolescent Adjustment. *Am J Community Psychol.* 1999;27(4):519-41.
26. Johnson MK. Parental financial assistance and young adults’ relationships with parents and well-being. *J Marriage Fam.* 2013;75(3):713-33.

27. Endendijk JJ, Groeneveld MG, Bakermans-Kranenburg MJ, Mesman J. Gender-Differentiated parenting revisited: Meta-analysis reveals very few differences in parental control of boys and girls. *PLoS One*. 2016;11(7).
28. Odenweller KG, Booth-Butterfield M, Weber K. Investigating Helicopter Parenting, Family Environments, and Relational Outcomes for Millennials. *Commun Stud*. 2014;65(4):407-25.
29. Borges D, Portugal A, Magalhães E, Sotero L, Lamela D, Prioste A. Helicopter parenting instrument: Initial psychometric studies with emerging adults. *REV IBEROAM DIAGN EV*. 2019;53(4):33-48.
30. Diener E, Emmons RA, Larsem RJ, Griffin S. The Satisfaction With Life Scale. *J Pers Assess*. 1985;49(1):71-5.
31. Simões, A. Ulterior validação de uma escala de satisfação com a vida (SWLS). *Revista Portuguesa de Pedagogia*. 1992;26(3):503-15.
32. Faul F, Erdfelder E, Lang AG, Buchner A. G\*Power 3: a flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behav Res Methods*. 2007;39(2):175-91.
33. Faul F, Erdfelder E, Buchner A, Lang AG. Statistical power analyses using G\*Power 3.1: tests for correlation and regression analyses. *Behav Res Methods*. 2009;41(4):1149-60.
34. DeVellis FR. *Scale development: Theory and applications*. Sage Publications. 1991;26.
35. Cohen J. *Statistical power analysis for the behavioral sciences*. 2nd ed. Lawrence Erlbaum Associates; 1988.
36. Aiken L, West S. *Multiple regression: Testing and interpreting interactions*. 1st ed. California: Sage Publications; 1991.
37. Hayes AF. *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. 3th ed. New York: The Guilford Press; 2022.
38. Cohen J. A power primer. *Psychol Bull*. 1992;112(1):155-9.
39. Tabachnick BG, Fidell LS. *Using multivariate statistics*. 5th ed. Boston: Allyn and Bacon; 2007.
40. Wood W, Eagly AH. Biosocial Construction of Sex Differences and Similarities in Behavior. In *Adv Exp Soc Psychol*. 2012;46:55-123.
41. Burrow AL, Sumner R, Ong AD. Perceived Change in Life Satisfaction and Daily Negative Affect: The Moderating Role of Purpose in Life. *J Happiness Stud*. 2014;15(3):579-92.
42. Galambos NL, Barker ET, Krahn HJ. Depression, self-esteem, and anger in emerging adulthood: Seven-year trajectories. *Dev Psychol*. 2006;42(2):350-65.
43. Douglass CB. From Duty to Desire: Emerging Adulthood in Europe and Its Consequences. *Child Dev Perspect*. 2007;1(2):101-8.
44. Cui M, Darling CA, Coccia C, Fincham FD, May RW. Indulgent Parenting, Helicopter Parenting, and Well-being of Parents and Emerging Adults. *J Child Fam Stud*. 2019b;28(3):860-71.
45. Cui M, Janhonen-Abruquah H, Darling CA, Carlos CFL, Palojoki P. Helicopter Parenting and Young Adults' Well-Being: A Comparison Between United States and Finland. *Cross Cult Res*. 2019a;53(4):410-27.
46. Romm KF, Barry CMN, Kotchick BA, DiDonato TE, Barnett JE. Parental Psychological Control and Identity: The Roles of Warmth, Gender, and Ethnicity. *J Adult Dev*. 2019;26(2):81-96.
47. Sneed JR, Johnson JG, Cohen P, Gilligan C, Chen H, Crawford TN, Kasen S. Gender differences in the age-changing relationship between instrumentality and family contact in emerging adulthood. In *Dev Psychol*. 2006;42(5):787-97.
48. Podaná Z, Krulichová E. The impact of parenting style on fear of crime among adolescent girls and boys. *J Youth Stud*. 2018;21(8):1077-94.
49. Oesterle S, David Hawkins J, Hill KG, Bailey JA. Men's and women's pathways to adulthood and their adolescent precursors. *J Marriage Fam*. 2010;72(5):1436-53.
50. Charlesworth TES, Banaji MR. Patterns of Implicit and Explicit Stereotypes III: Long-Term Change in Gender Stereotypes. *Soc Psychol Personal Sci*. 2020;13(1):14-26.
51. Kalkut EL, Han SD, Lansing AE, Holdnack JA, Delis DC. Development of set-Shifting ability from late childhood through early adulthood. *Arch Clin Neuropsychol*. 2009;24(6):565-74.
52. Howard AL, Galambos NL, Krahn H. Paths to success in young adulthood from mental health and life transitions in emerging adulthood. *Int J Behav Dev*. 2010;34(6):538-46.
53. Inguglia C, Ingoglia S, Liga F, Coco A, Cricchio MG. Autonomy and Relatedness in Adolescence and Emerging Adulthood: Relationships with Parental Support and Psychological Distress. *J Adult Dev*. 2015;22(1):1-13.
54. MacLean A, Sweeting H, Hunt K. 'Rules' for boys, 'guidelines' for girls: Gender differences in symptom reporting during childhood and adolescence. *Soc Sci Med*. 2010;70(4): 597-604.
55. Zimmermann P, Iwanski A. Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *Int J Behav Dev*. 2014;38(2):182-94.

56. Somerville LH, Casey BJ. Developmental neurobiology of cognitive control and motivational systems. In *Curr Opin Neurobiol.* 2010;20(2):236-24.
57. Dwivedi A, Rastogi R. Proactive Coping, Time Perspective and Life Satisfaction: A Study on Emerging Adulthood. *J Health Manag.* 2017;19(2):264-74.
58. Steinberg L. Risk taking in adolescence: New perspectives from brain and behavioral science. *Curr Dir Psychol Sci.* 2007;16(2):55-9.