

**The Effect of Perceived Parenting
Style on Emotion Dynamics: How
Parents can Determine Inertia**

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Abstract

The prepubescent times are the most troubling for a plethora of adolescents, which face many struggles regarding emotions, interpersonal relationships, or similar topics. An alarming increase of psychopathology has been found in this cohort. This paper aims to add to the research on parenting styles by investigating the impact of an emotionally-neglectful, overprotective, or a balanced parenting style on the emotional coping capabilities of a child. The ages between 12 to 18, as well as from 19 to the participants current age were investigated via a retrospective self-report questionnaire. Furthermore, we explored inertia of negative emotions at the participant's current age. The sample for the analysis consisted of a total of 128 individuals, 70% of which were female with an overall mean age of about 25 years of age for both genders. A one-way ANOVA was conducted with our sample and we found a significant difference between the parenting styles for coping at a young age. When the means were compared with T-tests, the emotionally-neglectful parenting yielded a significantly lower mean for coping capabilities at a young age, as compared to either of the other two parenting styles. This suggested that the vulnerability of children at that age seems to be higher as compared to older ages, in which we have not found significant results that would confirm our hypothesis. Parents can use part of this information for educated decision making on how to tailor parenting styles to the needs of the child, and potentially their own capabilities.

Keywords: emotional-neglect, overprotection, parenting, emotions, inertia, emotion dynamics

**The Effect of Perceived Parenting Style on
Emotion Dynamics: How Parents can Determine**

Inertia

Emotions are one of the most complex phenomena for the domain of psychology due to the inherent subjectivity, which is accompanied by physiological and/or behavioral changes (American Psychological Association, 2023). When a topic like individual differences is added to those emotions, it seems to unfold even more complexities. The American Psychology Association (2023) defines emotion as “a complex reaction, pattern, involving experiential, behavioral, and physiological elements, by which an individual attempts to deal with a personally significant matter or event. The specific quality of the emotion (e.g. fear, shame) is determined by the specific significance of the event. [...]. Emotion typically involves feeling, but still differs from feeling in having an overt or implicit engagement with the world.”. Even though many opinions were formed on the matter, some limited accords exist. One consensus resides with the subjective nature of emotions (American Psychology Association, 2023). One may experience negative emotions more readily and/or more intensely, whereas someone else may experience it with less intensity or can let go of emotionally impactful topics more easily. Thereby, emotions have a wide array of variability between individuals since most people will have their own individualised experiences and reactions of emotions whenever they find themselves in an emotion eliciting situation.

How people build those experiences can come down to the long-standing debate of nature vs. nurture. Research on this topic suggests consequences of certain behavior towards the child and what the outcome may be the consequence. The annual review of clinical psychology by O’Donnell and Maeney (2022) concerning epigenetics, development and psychopathology argues largely for the nature side, neurophysiology, and neurochemistry. This review cites the research done by, for example, Weaver and colleagues (2004), Hellstrom and colleagues (2012), Lui and colleagues (1997) or Zhang and colleagues (2013), on rats and their licking behavior

towards the pups. More licking of the pups lead to neurophysiological changes on the expression of glucocorticoid receptors in the brain. A lack of licking resulted in an increased sensitivity of the stress-response. This remains to be proven in humans, but such findings show potential to why attachment styles between parents and their children could be relevant for neurophysiology, which can be related to psychopathology. However, nurture may play an important role for child development as well, since your circle of friends may teach you certain behavioral patterns, as pointed out in the rhesus monkey study by Suomi (2006). He found that rhesus monkeys without a maternal figure that were raised by their peers, was characterized by less playtime, less comforting behavior towards one another, as well as more rough-and-tumble play. Again, this still requires to be found in humans, but these two examples -licking behavior of rat parents and peer-maturation in rhesus monkeys- highlight potentially far-reaching impacts of parents behavior on neurochemistry and neurophysiology of their children. Furthermore, it shows the importance of the bond that a child forms with a parental figure, and more generally, that parents are present.

In the book *Psychological Science* (Gazzaniga, 2018, p. 457), Lazarus (1993) is referenced, who proposed an appraisal theory, which assumes that people evaluate their emotions. This can be either positive, negative, stressful, benign, or otherwise. To outline the difference between positive and negative, we will use exemplary research by M. Caprara and colleagues (2022) that can be a first steppingstone. In their paper, examples for positive emotions could be joy, love, or amusement, which are related to increased cognitive performance, or function as a buffer for other negative emotions. The negative emotions in this paper were anger, sadness, and fear, which have correlations with decreased cognitive function and decreased emotional regulation (J. Lee & C. Son, 2022). As it can be found in the Desk Reference to the diagnostic criteria of the DSM-5, psychopathologies like anxiety (Section II, p.115) or depression (Section II, p.93) hold their own set of emotions, like anxious thoughts or prolonged sadness, respectively. Such trends of positive and negative emotions gave more

awareness to the impact, fluctuations, or other components of emotions for researchers. In turn, it led to a new domain of research, namely: Emotion Dynamics. Emotion Dynamics, as described by Kuppens and Verduyn (2017), is “the study of the patterns, trajectories, and regularities in emotions, or one or more of their subcomponents that fluctuate across time, their underlying processes, and the consequences of those processes and downstream consequences.” (see p.1). This paper will focus on the principle of inertia. This principle states that emotions are intrinsically governed by two forces: a) emotional states display an intrinsic resistance to change, even in the presence of motivating forces and b) those emotional states carry over from one moment to the next. Given the difference between people's experience of positive and negative emotions the question arises whether patterns could be found. A potential scenario could be that individuals suffering from abuse have increased rates of depression and anxiety (e.g. Çelik & Odacı, 2020) or individuals diagnosed with depression show increased, and prolonged experience of sadness (DSM-5, Section II, p. 94), as mentioned before.

The prevalence of negative health outcomes is rising, especially for adolescents in the recent years, such as an increased experience of stress (Developmental Science. 2019, May 9th), self-harming behavior (The Recovery Village. 2022, May 2nd) and most alarming: suicide rates have increased in adolescents (Our World in Data, 2015 and Wasserman et al., 2005). This may be a surprising trend to discover, especially when considering that external life circumstances have improved compared to previous decades. This may suggest that there is an important psychological reason at the root for why adolescents have a greater tendency to suffer. This claim stems from the increase in the quality of life. For most (western) societies, there is an increased financial opportunity for many people, compared to the past 100 to 200 years (Our world in data, 2018). Education is more widespread and of higher quality (Our world in data, 2016) and numbers of overall happiness and life satisfaction tends to be overall better compared to people from other parts of the world (Our world in data, 2013). Medicine has become more sophisticated and increased the life expectancy (Our world in data, 2013). Given those statistical

points of data, which should contribute to the increased quality of life, the question for the reason why adolescents are suffering increasingly more becomes even more elusive. One reason for this alarming finding is the physiological pre-deposition that comes with puberty, when exposed to stressful situations. Research by A. B. Miller (2019) showed that pubescent-adolescents have a decreased capacity to deal with stressful situations, due to physiological changes at this time of maturation. The biological reasoning for this lies with the restructuring of important brain areas that may allow for a development of a self-concept through, for example social experiences. For the time of physiological restructuring, there is only a limited, mature capacity to regulate one's own emotions, regulate their own cognition or inhibit impulsive responses.

The literature review “Puberty: Foundations, Findings, and the Future” by Dorn and Beltz (2023) recognize not only the wide spreading effects puberty has on ones body, which may impact the emotional coping capabilities. However, the perception has continuously changed throughout time, but not so much the changes of puberty itself. This suggests that nurture may be the most applicable viewpoint that could lead to a faster alleviation of this problematic situation for adolescents. A.B. Miller himself has given a proposition for the reason, such as a more complex social system due to involvement of social media. Research on social media is plenty (e.g. Lamblin et al. (2017), Schønning et al. (2020) or Harness et al. (2022)) suggesting the potentially damaging consequences and increased usage of those platforms.

Another aspect could be parents and their behavior to their children, since they have one of the most relevant and early impacts on the life of a child, which may contribute to the development of psychopathologies or emotional turmoil. That may start at conception of the child or even extend to the pregnancy itself (e.g. Schetter et al. (2022), Patel et al. (2020) or Lipner et al. (2022)), who found impacts on gestational period, how infection and cortisol levels can impact the development in depression, or impacts on immune-related conditions. However,

the parenting style is guiding children for much of their early life, commonly until the age of about 18 years of age with several years of childcare and an ever-changing relationship between parents and the child. Thereby, the timeframe of development of a child with their parents holds potential as an explanation for increasing cases of mental disorders. This is even further supported by the research showing an impact of parental styles on children's development, reaching as far as altering the brain-structures (e.g. Matsudaira et al. (2015) or Du et al. (2021)), who found that low ages of a parent may cause cognitive- and behavioral problems, as well as how parental praise can impact volume and function of brain areas, respectively. There is a large amount of research that can be found on the topics of parenting and their impacts on mental health (e.g. M. Li and H. Gong, or R. Young, S. Lennie and H. Minnis), who suggested that parenting styles may contribute to the development of psychopathology and increased scores, as well as symptoms on disorder subscales. Furthermore, parenting styles or parental personality may impact the coping capabilities of children (e.g. R.J. Coplan, M. Reichel and K. Rowan or S.T. Yung), whereas attachment styles can contribute to the development of depressive symptoms or may impact positive and negative affect (e.g. M. Verhees et al.). Nonetheless, for this paper we are looking at parenting styles and their impact on adolescents' ability to cope with emotionally stressful situations, due to increased suffering in emotional domains.

Overprotective and neglectful parents received much attention over the years in developmental research, with findings pointing towards detrimental effects. Overprotective parenting can be characterized as a tendency of a parent to over-manage situations for their child, restrict their behaviors, discourage the independence of the child, or their autonomous activities (R.J. Coplan, 2008). This has been linked to children's temperamental risk for internalising symptoms of a disorder, anxious behaviors, internalising the disorder itself (E.J. Kiel, 2012). Emotionally-neglectful parenting, on the other hand, can be characterised by emotional unresponsiveness, unavailability, or a lack of interaction between parents and the

child (R. Young, 2011). A more recent paper by D.S. Kosson (2021) added to those findings by stating that the neglect has an impact on the sense of security or the quality of the attachment. This has been linked to more cognitive and academic deficits, social withdrawal, limited peer interactions and increased internalising of emotions or psychopathology. With both parenting styles being linked to a wide array of emotional, social, and personal difficulties, we suspect there to be an impact of parenting styles on the children's stress regulation or general ability to emotionally cope with stressful situations.

Our paper recognizes the plethora of reasons as to why adolescents may have an increased experience of suffering. Therefore, we propose that certain parenting styles have a negative effect on a child's coping mechanism that could increase the experienced stress levels. This unhealthy, learned behavior could eventually manifest in maladaptive coping mechanisms, and thereby, dysregulated emotion dynamics. Hence, our first hypothesis is that overprotective parenting leads to a worse developed emotional coping style, as compared to more balanced parenting styles, which leads to increased inertia of negative emotions later in life. Our second hypothesis is that emotionally neglectful parenting leads to a worse developed emotional coping style, as compared to a more balanced parenting style, which leads to increased inertia of negative emotions later in life. In both cases, we suspect that the parenting behavior will establish a maladaptive coping behavior early on, which translates to a worse coping behavior later in life.

Methods

2.1 Participants

The sample consisted of 130 participants with ages between 18 and 68 ($M = 25.85, SD = 10.19$), specifically 91 females from 18 to 68 years ($M = 25.21, SD = 9.65$), 37 males ranging from 19 to 58 years ($M = 27.59, SD = 11.57$) (see Table 1) and one 'Non-binary/Third gender' with an age of 25 years ($M = 25, SD = N. a$). Lastly, one participant that

preferred to withhold gender-related information had the age of 20 years. All participants were citizens of the European Union. An a priori power analysis was conducted using G*Power version 3.1.9.7 (Faul et al., 2007) to determine the minimum sample size to test the study hypotheses. The analysis was based on a correlational test, as it seemed to be the most suitable test for conducting a between-subject comparison within our sample. Results indicated that a sample of 64 participants was required to achieve power = .80 for detecting a medium effect size ($d = .30$) at a significance alpha-level of = .05.

Table 1

Descriptive summary of participants

Gender	Male					Female				
	N	M	SD	Min.	Max.	N	M	SD	Min.	Max.
Age	37	27.59	11.57	19	58	91	25.21	9.65	18	68

2.2 Research Design and Procedure

The study was approved by Ethical Committee of Psychology (ECP). The questionnaire was prefaced by an informed consent form and consisted of a cross-sectional questionnaire used during one online study. Measures were taken to ensure participants were not subjected to any harm, nor disadvantages, in the process of the study. Namely, it was allowed for respondents to quit the study at any given time for no specified reason. Participants were also informed of the anonymity of their responses, with no personally identifiable information, like IP addresses, being collected. We designed a cross-sectional questionnaire taking approximately five to ten minutes to complete. The reliability and validity of the survey are addressed in the Results section, with the mention that the items currently lack professional peer review. The recruitment procedure was carried out by the students from the Individual Differences in Emotion Dynamics bachelor thesis group at the University of Groningen, who distributed the study announcement

in WhatsApp groups, on Instagram and on Facebook. A recruitment message was added to the questionnaire, and it was accessible via a Qualtrics link through any internet-capable device. Thus, the study is a voluntary convenience sample, with no compensation offered in exchange. Prior to data collection, participants were provided information about the study after which they could either choose to give consent or discontinue the study. The other requirements for the participation and data collection were being older than 16 years old, and being a citizen of the European Union. If either one was not the case for the subject, they were immediately brought to the end of the study and thereby excluded from participating. Participants were informed about potentially sensitive topics, like risky behavior and parenting styles.

2.3 Materials

The data for our current study was collected by means of a Qualtrics questionnaire (https://rug.eu.qualtrics.com/jfe/form/SV_86BEHlu4oVXa43I), consisting of items developed by the authors (see Appendix A). When opening the study, the participants were asked to indicate their age and whether they are citizens of the European Union, to determine whether they are eligible to participate in the study. They were also inquired about their own, as well as their parents' gender. The latter was used for further insights into the distribution of parenting styles. In general, the main themes addressed in the questionnaire were parenting styles, coping behavior, emotion regulation, risky behavior, personality assessment, negative affect, and emotions augmentation. Most questions used a slider-scale format from zero to 100, with labels added at the middle-point, as well as extremities of the scale. This format was adopted to facilitate intuitive and comprehensive answering from participants, as well as for analysis purposes. An attention check was included, and the questionnaire items were spread and grouped over multiple pages to help maintain participant attention.

2.4 Parenting Style Variables

The category for this paper included five items exploring perceived parenting styles and coping behavior. Participants had to indicate the perceived parenting style of their parents on a continuous scale, from “very neglectful” (0) to “very overprotective” (100). In combination with exploring the perceived parenting style, we asked about the coping capabilities in the time frames between the ages of 12 to 18 and 19 to their current age. The last question was on inertia and negative emotions. Given our independent variables of the parenting styles of both parents taken together as a combined unit, which was either overprotective, emotionally-neglectful or balanced, we formed three groups. When participants indicated a parenting style with a score of 49 and lower, they were assigned to the “neglectful” group. If participants indicated a score for both their parents to be 51 or higher, those participants were assigned to the “overprotective” group for our analysis. Lastly, if participants indicated a score of 50 for their parents, they were assigned to the “balanced” group. This grouping scheme was used for the individual parenting style, as well as the combined parenting style. The individual scores were used for frequencies of parenting styles between genders, whereas the combined scores were used for the analysis.

2.5 Data Analysis

Out of the total 184 participants, we gathered the descriptive data out of 130 participants as seen in Table 1. However, a total of 128 participants were used for the analysis, since 54 participants were removed, since they either did not complete the study, were younger than 16 years, did not live in the European Union, or otherwise gave incomplete answers throughout the questionnaire. Since a one-way ANOVA was planned to be conducted, two participants were removed, due to indicating only have a single parent present. This was done to achieve the same sample size for all groups. Notably, there were a total of four outliers present (see Appendix B, Figure 3), which were not removed, since the change of the standard error was so small that it was considered to be a normal variation within the data (see Table 2). Two types of tests were

conducted; namely, the analysis of variance to find differences in mean and several independent t-tests to determine which means are different from one another.

Table 2

Mean Standard Error, Dependent variables

Sample	Question item	SE
Without incomplete answers	Young coping	1.894
	Old coping	1.946
	Inertia	1.991
Without incomplete answers and outlier	Young coping	1.785
	Old coping	1.94
	Inertia	1.955

Results

3.1 Descriptives of Parenting Styles

In the questionnaire, we inquired about the individual parenting style of their parental figures, as well as their genders. This was from an exploratory viewpoint, to find trends and certain patterns within the data for further insight into applications or future research. As seen in Table 3, there seems to be overwhelming number of females being perceived to be overprotective (70.9%), whereas the males are largely perceived to be emotionally-neglectful (52%). Also, a large proportion of the male parents tend to be overprotective (34%), whereas females were much less frequently perceived as emotionally-neglectful (17.3%). The balanced parenting was only minimally present with about 13.6% and 11.8% for males and females, respectively.

Table 3*Count of parenting style, gender difference*

Gender	Parenting Style	Count
Male	Emotionally-neglectful	67
	Overprotective	44
	balanced	17
	<i>Total</i>	<i>128</i>
Female	Emotionally-Neglectful	23
	Overprotective	90
	balanced	15
	<i>Total</i>	<i>128</i>

3.2 Assumptions

A one-way analysis of variance and several T-tests were conducted. Therefore, assumption checks were being made with the Shapiro-Wilk test for normality and the Levene's test for equal variances. When the Shapiro-Wilk test was conducted, we found two significant results. The inertia question on the combined-overprotective parenting style showed a significant departure from normality, $W(67) = .930, p = .001$. The combined-overprotective parenting style significantly departed from normality on the question on coping at a young age as indicated by the Shapiro-Wilk test of $W(67) = .951, p = .010$. The other questions gave no indication for a violation of the normality assumptions. For further insights into the normality values, see Table 4. Given that only two questions violated the normality assumptions, but were graphically close enough to normality, the violation was tolerated, and normality was assumed. You can find a graphical representation of the normality tests in the Appendix B, Figure 1 and Figure 2. For the question of coping at a young age, with the combined parenting styles, Levene's test rejected the null hypothesis of equal population variances, $F(2, 122) =$

7.415, $p = < .001$ and coping at an older age in combination with the parenting styles failed to reject the hypothesis of equal variances $F(2, 122) = .928, p = .398$. For the inertia question with the combined parenting styles, Levene's test failed to reject the null hypothesis of equal population variances, $F(2, 122) = 1.877, p = .157$. The tests that indicated that there was a violation of homoscedasticity, used values of "no equal variance assumed" from the given tables by SPSS (see Table 5).

Table 4

Shapiro-Wilk normality test, Combined parenting

Question Item	Parenting style	W	df	p
Young coping	Emotionally neglectful	.956	28	.277
	Overprotective	.951	67	.010
	Balanced	.955	30	.224
Old coping	Emotionally neglectful	.970	28	.577
	Overprotective	.980	67	.346
	Balanced	.940	30	.093
Inertia	Emotionally neglectful	.943	28	.135
	Overprotective	.930	67	.001
	Balanced	.946	30	.132

Table 5

Levene's test of equal variances, Combined parenting style

Question	F	df1	df2	p
Young coping	7.415	2	122	<.001
Old coping	0.928	2	122	.398
Inertia	1.877	2	122	.157

3.3 Analysis of Variances: Combined Parenting Style

The analysis of variance was conducted to find a significant difference in the means for our dependent variables of the coping questions in the age ranges, as well as for the inertia question. The one-way ANOVA revealed that there was a statistically significant difference in answers for the young coping capabilities between the independent variables of parenting styles $F(2, 122) = 4.082, p = .019, \eta^2 = .063$). When the one-way ANOVA test was conducted on the old coping strategies, it revealed no statistically significant difference in the parenting styles ($F(2, 122) = .925, p = .399, \eta^2 = .015$). Lastly, when an analysis of variance was conducted on the inertia question, it did not reveal a statistically significant difference between the parenting styles either ($F(2, 122) = .100, p = .905, \eta^2 = .002$). Therefore, the only question that has a significantly different mean between the parenting styles, is the question about the young coping effect of the participants (see Table 6).

Table 6

Analysis of variances (ANOVA), Combined parenting style

Question	F	Df1	Df2	p	η^2
Young coping	4.082	2	122	.019	.063
Old coping	.925	2	125	.399	.015
Inertia	.100	2	125	.905	.002

3.4 ANOVA Post-Hoc Power Analysis

We computed the power for the analysis of variance. Beginning with the question of coping at a young age (N = 128) with an effect size of .063 and alpha = .05 resulted in a low power of .089. Then, the question on coping at an older age has a power of .052 (N= 128) given an effect size of .015 and alpha = .05. Lastly, for the inertia question (N = 128) a power of .05 was able to detect an effect of .002 in size given alpha = .05.

3.5 T-testing: Combined Parenting Style

When comparing the means on the question of coping at a young age, between combined-balanced parenting and combined-neglectful parenting with equal variances being assumed, we reject the hypothesis of equal means $t(56) = -2.313, p = .024, d = -.608$, meaning that the neglectful parenting style had a significantly worse mean. When comparing the means on the question of young coping behavior, between combined-balanced- and combined-overprotective parenting style with equal variances being assumed, we fail to reject the hypothesis of equal means $t(95) = .163, p = .460, d = .163$. Here, we find the balanced parenting style to have a non-significantly better mean value. When comparing the means of coping behavior at a young age, between combined-overprotective and combined-neglectful parenting with equal variances being assumed, we reject the hypothesis of equal means $t(93) = -2.728, p = .008, d = -.614$ and see that the emotionally-neglectful parenting yielded a worse mean value (see Table 7).

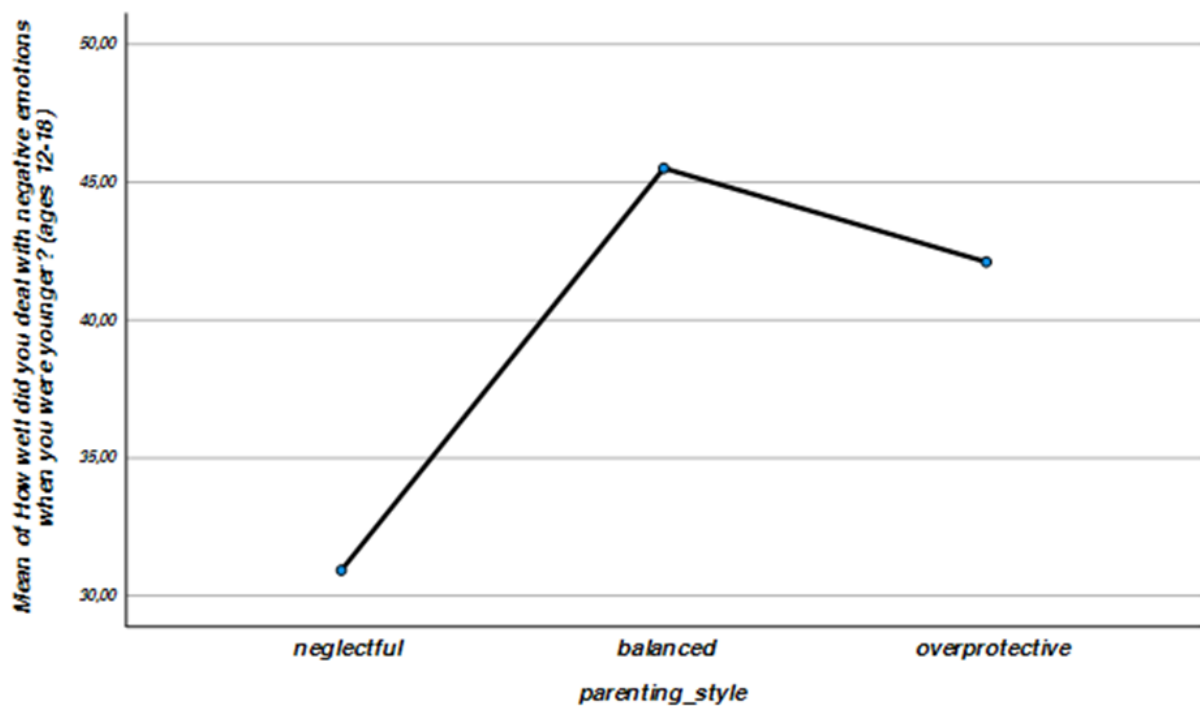
Therefore, we find two significant differences between the combined-neglectful versus the combined-balanced parenting styles and between the combined-overprotective versus combined-neglectful parenting style on the question how participants were coping when they were young.

3.6 T-Test Post-Hoc Power Analysis: Combined Parenting Style

The power for the three independent samples T-tests were computed which will be used in the analysis. Beginning with the question about coping at a young age (N(neglected)=30; N(balanced)= 30) with an effect size of .608 and $\alpha = .05$ resulted in a high power of .639. Then, the question about coping at an older age has a power of .092 (N(overprotective)=68; N(balanced)= 30) given an effect size of .133 and $\alpha = .05$. Lastly, for the inertia question (N(overprotective) = 68, N(neglected)= 30) yielded a power of .792 with an effect of .647 in size given $\alpha = .05$.

Table 7*T-tests of equal means, Combined parenting*

Compared parenting styles	Question		t-value	df	P (two-tailed)	Cohen's d
Emotionally neglectful & Balanced	Young coping	Equal variances assumed	-2.313	56	.024	-.608
		Equal variances not assumed	-2.337	53,351	.023	
Overprotective & Balanced	Young coping	Equal variances assumed	.742	95	.460	.163
		Equal variances not assumed	.631	40.059	.532	
Neglectful & Overprotective	Young coping	Equal variances assumed	-2,728	93	.008	-.614
		Equal variances not assumed	-2.569	44.712	.014	

*Figure 4*

Discussion

Despite the increase in the quality of life in many (western-) countries, there is a steady increase in the numbers of psychopathologies, self-harming behavior or suicidality among the adolescent population. The reason for such a contradictory observation could be simply puberty itself, since it goes hand in hand with changes in brain structures that may be responsible as indicated by A.B. Miller (2019). However, since this biological factor has been existing for many centuries, we suspected another factor to be at the root for this development. Specifically, this paper investigated the impact of parents due to the extensive research on attachment styles, parental impact at many stages of life of the child and the research done on animals, which can also be connected. Therefore, we hypothesized that parents and their parenting styles play an integral part in development of emotional coping abilities and the potentially connected psychopathologies later in life. Our first hypothesis stated that an overprotective parenting style leads to the development of an unhealthy coping mechanism and inability to handle emotions skilfully, compared to a more balanced parenting style. Our second hypothesis stated that a neglectful parenting style leads to a similar development of an unhealthy coping mechanism and the inability to deal with emotions in an effective manner, when compared to a balanced parenting style. When considering parents as a combined unit, there seems to be a significant difference between the parenting styles. Our first hypothesis was confirmed at younger ages, since our results suggested that a neglectful parenting style had an impact on the ability of coping, as compared to the balanced parenting style. Furthermore, it was also significantly worse as compared to the overprotective parenting style. However, in terms of our second hypothesis, we did find a non-significant difference of the hypothesized trend of overprotective parenting being worse for the development of the child, as compared to balanced parenting. Especially the neglectful parenting style seem to be the worst out of the three styles that were analysed at that age. This is unsurprising, since children at a young age are still developing and

therefore, are more readily impacted, which also parallels the findings of papers on the subject (e.g. M.S. Gazzaniga (2018)).

We expected that this finding would lead to the inability to cope with emotions at later in life, due to those maladaptive coping behaviors. The ability to cope at an older age of 19 and onwards, however, showed an opposing result to our expectation, since no significant differences were found between the coping capabilities between the parenting groups. Furthermore, it subverted the expectations, since at this age it turns out that the balanced parenting style yielded the worst mean value for emotional coping, followed by neglectful parenting and the overprotective parenting style gave the best mean value (Appendix B, Figure 5). Therefore, our first and second hypothesis were disproven, and results indicated that the impact of parents were less significant at this age. Potential reasons for this surprising find could be that individuals tend to stabilize with their emotions with increasing age (e.g. D.A. Burr et. Al (2020)). Even though a large proportion was rather young, given the mean age of about 25 years for both genders, there were also several participants that were up to 68 years of age. Additionally, participants have grown older in between the age-ranges we inquired about. This could also lead to a similar effect, that the participants have become older and, therefore, more stable in terms of emotions. Therefore, there is a portion of participants that may experience a better result when coping with emotions at this older age. Other potential reasons may be that a large portion of individuals at those ages are in less frequent contact with their parents and may rather seek emotional help with friends, than their parental figures. Lastly, the better-than-average-bias should not be left out of potential reasons, especially due to the sample being largely drawn from groups that are based on the psychology faculty. Therefore, a sound argument can be made that the sample was rather introspective, knowledgeable about emotions, and how to manage them effectively with a more supportive environment. Given the hypotheses that was formulated, we expected not only that emotional coping at an older age would be impacted by parenting style, but also that the effect would last over prolonged periods of time.

However, this result was not found, since there were no significant differences found between the parenting styles on the question of inertia. Therefore, both hypotheses were rejected.

Considering the potential stabilization of emotional states and coping with increasing age, as pointed out before, individuals may also learn how to deal with negative emotions more skilfully. Negative emotions are then dealt with more quickly and the prolonged impact is reduced. Therefore, inertia does not apply due to the previous finding on coping at an older age. In summary, both our hypotheses were only correct in terms that neglectful parenting of both parents seems to impact a child's coping capabilities at a young age with a medium effect size. This may serve for parents to make educated decisions about ones parenting style, given the impact emotionally-neglectful parenting may have on a child. The overprotective parenting style may impact a child in a similar manner, but it was not found to be significant. At an older age the hypotheses are rejected, and they were also rejected in terms of inertia. Therefore, future research may want to reconfirm or build on those finding.

Compared to other research, we found parallels to the research by Kosson and colleagues (2020), who already indicated the negative effects of emotionally-neglectful parenting. Results suggested and highlighted the potentially dangerous impact of neglectful parenting on coping capabilities. This in turn may translate to the development of psychopathologies, as well as increased suffering. However, we could not confirm findings by papers written by Cookling and colleagues (2013) or Kiel and colleagues (2012), who conducted research on the damaging effects of overprotective parenting. Reasons could be the questions that were posed to the participants, since the questions were developed by the authors without any further peer review or statistical confirmation of their functionality. Furthermore, the sample was consisting largely of psychology students, who are expected to be more knowledgeable on how to successfully cope and deal with emotions. Meaning, that the impact of overprotective parenting styles could be dampened and that already a large portion of work could have been done, to revert those damaging effects. This could have been done by being

away from the parents, having a better environment, or being a more experienced individual. Lastly, it may be difficult for some participants to find a connection between parenting styles and their own coping capabilities. To find a specific reason is beyond this paper, but it is a great trajectory for further research that is also being covered later.

General applications could be for parents to consider to be more mindful and educate themselves on what parenting styles could do to a child and how children may react towards certain behavior of their parents or what rules should be applied around the child. However, parents should be aware that every child may require its individual parenting style tailored to its unique needs to help it thrive. Given that parenting is connected to many other factors like both parents agreeing on parenting behavior, the needs of a child or the environmental impact, such research may be of utmost relevance for parents. Parenting and the dynamic towards the child remains a complex system, that requires many angles of research to potentially find a more healthy and specific way of raising children.

Future research may want to take this fraction of insight to further investigate how parents may impact the child as a combined unit or what the individual impact of a parent on a child's coping capabilities may be. Earlier, it was referred to an annual review by O'Donnell and Maeney (2022), which indicated the licking behavior of rat mothers served as a catalyst for changes in the neurophysiological structure of their pups. This can be a great trajectory for future research to not only investigate similar angles on humans, but also attempt to relate several attachment styles to neurophysiological changes, which may relate to the development of psychopathology. Also, the dynamic between the parents, like how caring they are towards each other or how hostile they are, could be an interesting viewpoint for future research how it impacts a child. Lastly, the role of the gender should not be left out, since fathers have not received much attention in research, since most of it seems to be based on mothers. Furthermore, the descriptive data in Table 3 highlights a potentially important difference in the genders of the parents and how they behaved towards their children, or the perception of the

child on the parents gender and their behavior. More importantly, future research may want to investigate such wide-spread findings across domains with an extensive literature review, but also with new model that could put all the findings into perspective for the individual children. A 'complex model', as described by Olthof et al. (2022) may be of particular importance, since this model does not only include the variable of time, but also development throughout and the topics which have great importance for the dynamic (e.g. attachment or topics of discussion). Further investigation must be done to create a robust model, since Olthof's model focuses on Psychopathology. For further insight, we refer to this specific paper in the *Journal of Psychopathology and Clinical Science*. However, maladaptive parenting styles may lead to a development of psychopathology or maladaptive cognitions, which may justifies using a similar, if not the same, model. Therefore, as much as there is value gained in investigating smaller aspects of child-parent dynamics, it cannot be overlooked to also implement a larger scope on the topic due to the highly complex dynamics, emotions and impressions that evolve and change throughout the time the parents and the child spent together.

As many studies, this research faced limitations that should be considered for future research. One important aspect is the data collection, since the survey was posted, not only online, but also in student focused Whatsapp Groups and Instagram posts. This caused a larger proportion to be educated, psychology students. Therefore, it is not representative of the larger population, and yields only limited external validity. Another point of interest remains with the questionnaire that was provided to the participants, since they were the questions formulated by the students themselves and, therefore, lacked peer review or statistical proof that they are sufficient in measuring what was intended to be measured. There is a threat for internal validity, as well as an issue with answers being not clear enough to the participants. This uncertainty about the items and how they are being perceived by the participants, should receive special attention for future research. Lastly, and most importantly, there is an inherent issue with the sampling, since this paper built the premise that adolescents are suffering from increased stress

and psychopathologies. Therefore, a sample that indicates this suffering or is facing a psychopathology may have been more suitable.

5. Conclusion

As adolescents seem to suffer despite an objective increase in quality of life, medicine, and similar domains, which could be considered a general improvement resulting in increased life satisfaction. With this thesis, it may shed light on one fraction of potential reasons why those adolescents are suffering, since parental impact on children's coping abilities seems to be substantial at a younger age. Despite our non-significant findings, we hypothesized that this would cause a maladaptive coping style to develop, which continues to adulthood and cause negative emotions to easily carry over from one situation to another. Therefore, parents may want to consider what parenting style may be suitable and what parenting style they are following to maximize the health and well-being of their child. A neglectful parenting style seems to exert a negative effect on a child emotional coping capability. Overprotective parenting may have not been found to be significant, but our results suggests that overprotective parenting may follow a similar pattern, as seen in the trends of the data (Figure 4). We hope that the research on parenting styles, child development or how individuals deal with emotions can lead to a decreased sense of suffering. That the small steps that are being taken can already help to improve and can eventually turn this trend of increased psychopathology downwards again, so that as many people as possible can flourish.

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Appendix A

Questionnaire Survey Emotion Dynamics

Age	Participants age
Gender	Male/Female/Non-binary/Prefer not to say
Nationality	EU citizen/ non EU citizen
Parenting style Parent 1	Male/Female/ Non-binary
Parenting style Parent 2	Male/Female/ Non-binary

Think about your childhood and how you grew up over the years...	
How did you perceive your parents combined parenting style to be ?	0 = Very neglectful; 50 = Balanced; 100 = Very overprotective
How did you perceive the parenting style of Parent 1 to be?	0 = Very neglectful; 50 = Balanced; 100 = Very overprotective
How did you perceive the parenting style of Parent 2 to be?	0 = Very neglectful; 50 = Balanced; 100 = Very overprotective

How well did you deal with negative emotions when you were younger ? (age 12-18)	0 = Not well at all; 50 = Average 100 = Exceptionally well
How well did you deal with negative emotions from age 19 to today?	0 = Not well at all; 50 = Average 100 = Exceptionally well

Once faced with an anxious, depressive otherwise negative emotion: How much does it affect your mood throughout the day ?	0 = Little; 50 = Average; 100 = Considerably
Think about a situation in which emotions might have augmented each other (e.g. anxiousness making you more irritated and irritation contributing to anger). How much did the intensity of your emotional experience increase?	0 = Little; 50 = Average; 100 = Considerably

Think about your mood/lifestyle in the last month . Determine whether you agree or disagree with the following statement.	
If I am sad, the feeling passes quickly and I do not feel sad anymore.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
When I'm sad, I believe there is nothing I can do to make me feel better.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
I can manage my emotions as well as I would like to.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
When I am sad, I extensively analyze my emotions' causes, manifestations or consequences.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
When I am sad I want to resolve the feeling as soon as possible.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
When I am sad I know exactly what to do to resolve this feeling.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
I am someone who gets easily nervous.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
When confronted with a task I tend to do it immediately and thoroughly.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree
I see myself as outgoing and sociable.	0 = Strongly disagree; 50 = Neither agree nor disagree; 100 = Strongly agree

Think about your mood/lifestyle in the past month . This section will be concerned with the <i>frequency</i> of your experiences.	
How often did you experience negative emotions, e.g. sadness?	0 = Never, 50 = About half the time; 100 = Always
How often did you experience Melancholia (defined as a state of deep or deliberating sadness)?	0 = Never, 50 = About half the time; 100 = Always
How often do you pay attention? If you're paying attention now, answer with 60.	0 = Never, 50 = About half the time; 100 = Always
How often did you engage in risky driving behavior (e.g. speeding, drink-drive, unfastening of a seat belt, driving while feeling sleepy, and highway code violations) when feeling sad?	0 = Never, 50 = About half the time; 100 = Always
How often did you engage in risky driving behavior to reduce feelings of sadness?	0 = Never, 50 = About half the time; 100 = Always

How often did you engage in aggressive behavior (e.g. acts of physical violence, shouting, swearing, and harsh language) when feeling sad?	0 = Never, 50 = About half the time; 100 = Always
How often did you engage in aggressive behavior to reduce feelings of sadness?	0 = Never, 50 = About half the time; 100 = Always
How often do you engage in substance use (alcohol, drugs) when feeling sad?	0 = Never, 50 = About half the time; 100 = Always
How often do you engage in substance use to reduce feelings of sadness?	0 = Never, 50 = About half the time; 100 = Always
How often do you engage in sexual risky behaviour (unprotected sex, multiple sex partners) when feeling sad?	0 = Never, 50 = About half the time; 100 = Always
How often do you engage in sexual risky behaviour to reduce feelings of sadness?	0 = Never, 50 = About half the time; 100 = Always

Appendix B

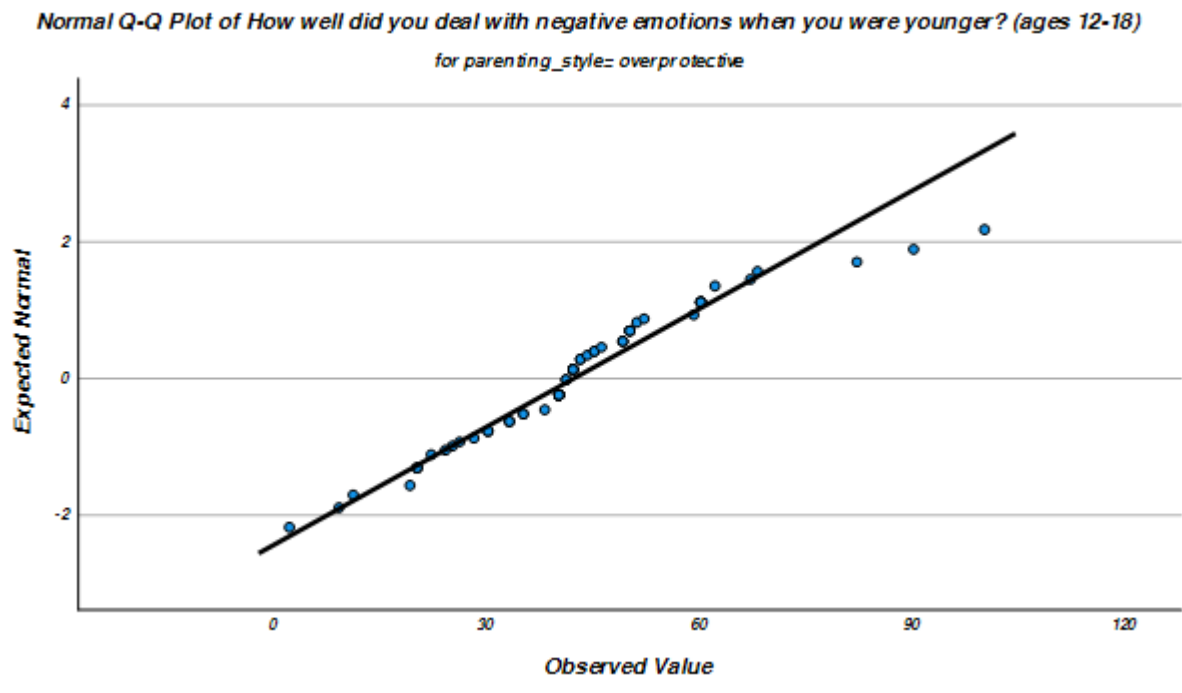


Figure 1

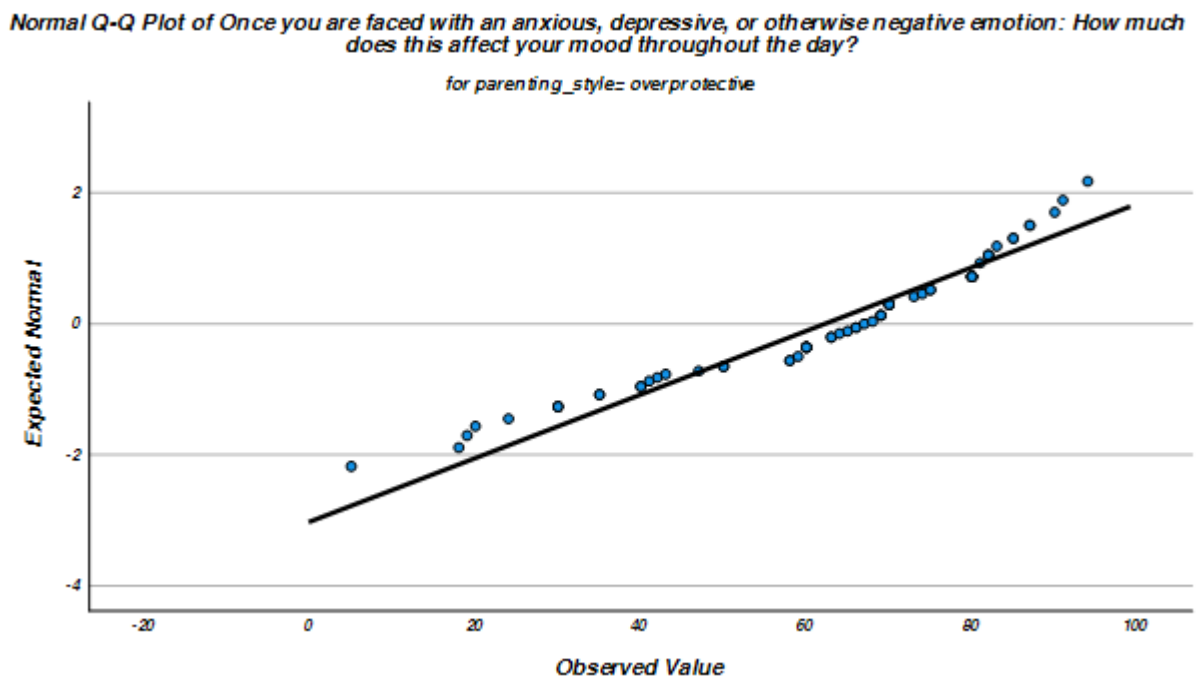


Figure 2

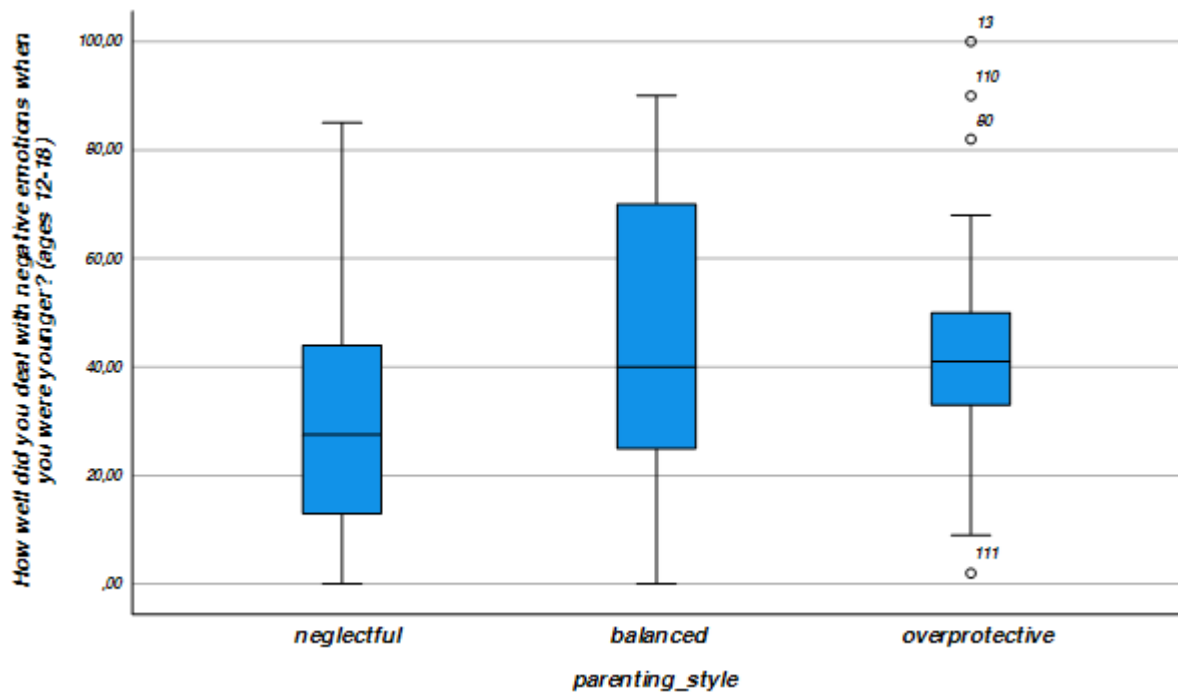


Figure 3

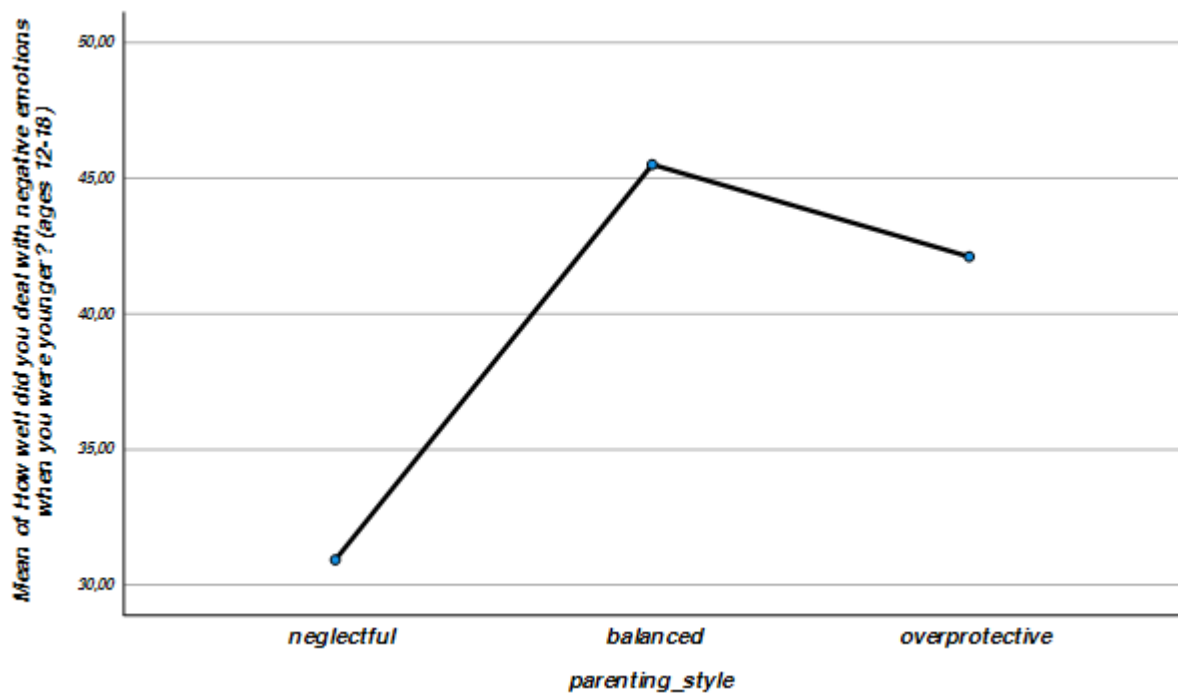


Figure 4

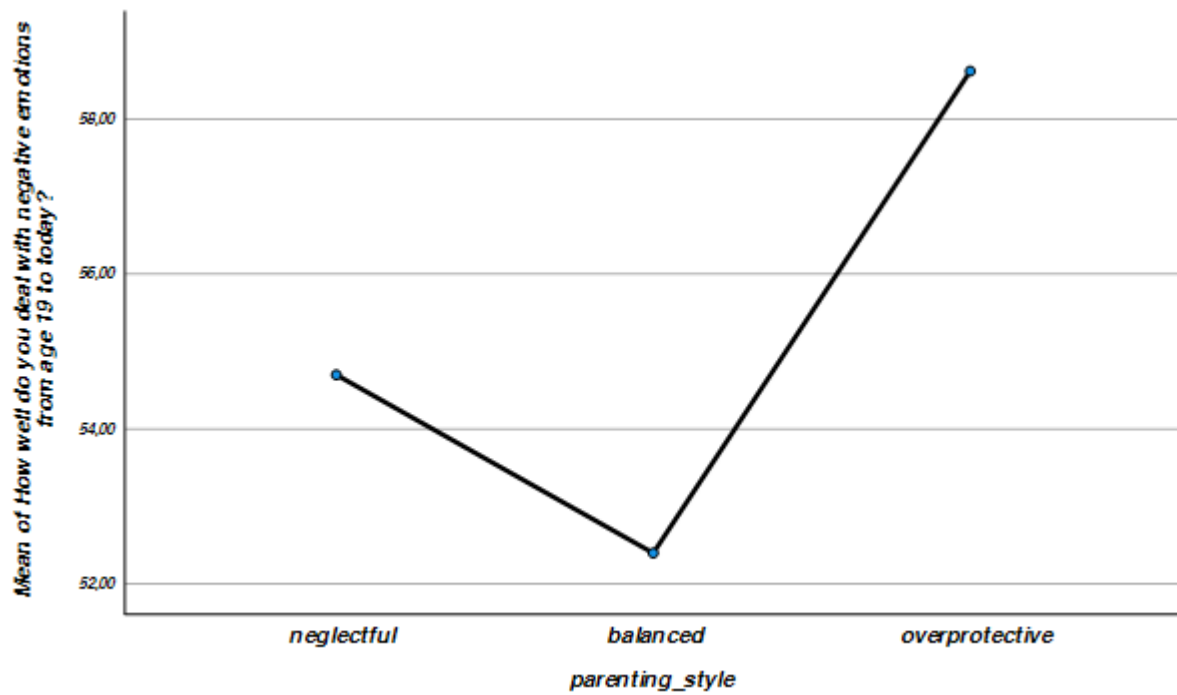


Figure 5

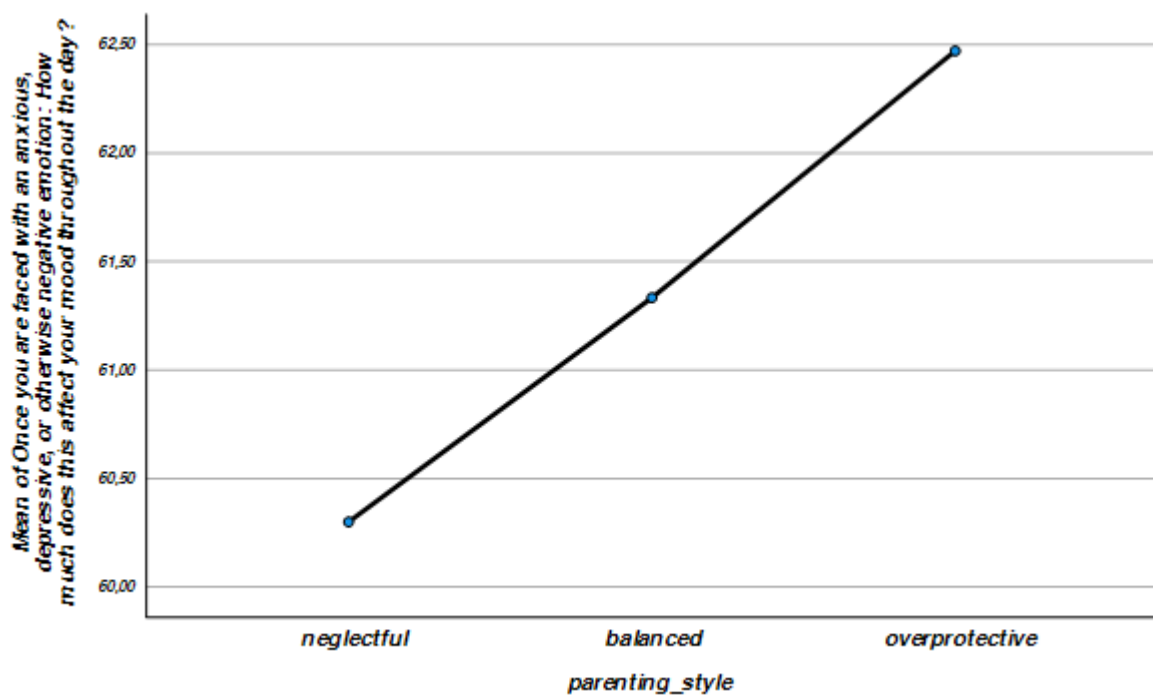


Figure 6