

**THE ROLE OF PERCEIVED FAMILY FUNCTIONING AND POSITIVE  
CHILDHOOD EXPERIENCES ON UNIVERSITY STUDENTS' PSYCHOLOGICAL  
RESILIENCE AND LIFE SATISFACTION**

Elif Sena Dedeoglu

MSc Clinical Child Psychology



Anglia Ruskin University

Psychology Department, East Road, Cambridge, CB1 1PT

**ANGLIA RUSKIN UNIVERSITY**  
**MSc Dissertation Originality Declaration**

**Title of Award:**

MSc in Clinical Child Psychology

**Date:**

15<sup>th</sup> September 2023

**SID Number:**

2182175

**Name of Supervisor:**

Dr. Debora Antoniotti de Vasconcelos e As

**Title of Dissertation:**

The Role of Perceived Family Functioning on University Students' Psychological  
Resilience and Life Satisfaction

**Word Count:** 7706

**DECLARATION:** I declare that the above work is my own and that the material contained  
here in has not been substantially used in any other submission for an academic award.

**Signed:**



**Date:** 15<sup>th</sup> September 2023

### **Acknowledgments**

I am excited to be approaching the end of my MSc, which has been one of my biggest goals. Throughout this process, I have tried to do my best, and believe in myself so I appreciate my determination on the journey to achieving my goals. There are many precious people I want to thank for their support. All the course modules contributed a lot to my academic and personal development. I would like to thank all the module leaders. I would like to thank my mother, father, and brother who have always been there for me and supported me in every circumstance. Finally, I would like to thank my supervisor, Dr. Debora Antoniotti de Vasconcelos e As, who has supported and encouraged me throughout this process.

| <b>Contents</b>                                    | <b>Pages</b> |
|----------------------------------------------------|--------------|
| Title Page                                         | 1            |
| MSc Originality Declaration                        | 2            |
| Acknowledgements                                   | 3            |
| Table of Contents                                  | 4            |
| List of Tables                                     | 5            |
| Abstract                                           | 6            |
| Introduction                                       | 7            |
| Method                                             | 16           |
| Results                                            | 22           |
| Discussion                                         | 26           |
| References                                         | 33           |
| Appendices                                         | 46           |
| Appendix I-Ethics Approval Letter                  | 47           |
| Appendix II-Dissertation Workbook                  | 48           |
| Appendix III-Dissertation Supervision Record Sheet | 49           |
| Appendix IV-Participant Information Sheet          | 57           |
| Appendix V-Participant Consent Form                | 60           |
| Appendix VI-Participant Debrief Sheet              | 61           |
| Appendix VII-Supervision Learning Contract         | 62           |
| Appendix VIII- Evidence of Data Collection         | 64           |

**List of Tables****Pages****Table 1**

23

*Descriptive scores and correlations between the variables***Table 2**

24

*Regression Coefficients of perceived family functioning  
on life satisfaction***Table 3**

25

*Mann Whitney U-Test for the difference between two  
groups in terms of resilience and life satisfaction***Table 4**

26

*Regression Coefficients of Positive Childhood  
Experiences on Life Satisfaction*

### **Abstract**

The university period represents a transition process for students. Students might have stressful experiences in areas such as academic challenges, social relations, financial issues, and adapting to a new setting. Their ability to cope with stressful events may differ from person to person, and this difference might stem from their level of psychological resilience. University students' life satisfaction also provides insight into how they personally evaluate their well-being. The purpose of the study is to examine the relationship between family functioning and positive childhood experiences on university students' psychological resilience and life satisfaction. Since many university students live apart from their families, this study also aims to investigate whether there is a significant difference between psychological resilience and satisfaction with life of university students who live with their families and those who do not. A total of 90 university students in the UK who were over the age of 18 participated in this study. The data was collected via the SONA research participation system and social media. The results of the study revealed that high levels of family functionality were associated with high life satisfaction and that family functionality predicted life satisfaction. There was no significant relationship between family functionality and psychological resilience. Similarly, it was found that positive childhood experiences were positively associated with life satisfaction and positive childhood experiences predict life satisfaction, while a significant relationship between positive childhood experiences and psychological resilience was not found. The study findings also showed that there were no significant differences between university students who live and who do not live with their families. The study results underlined the importance of family functionality and positive childhood experiences for the life satisfaction of university students.

## 1 Introduction

University students constitute a specific population that is experiencing a significant period of transition (Dawson & Pooley, 2013; Wang et al., 2014). University may be stressful for students because of environmental changes, lack of social support, academic challenges, money management, and challenges in forming peer relations (Credé & Niehorster, 2011; Dorrance Hall & Scharp, 2021; Pidgeon et al., 2004; Schweitzer, 1996).

The experiences of university students may differ according to different factors such as being postgraduate, undergraduate, first-year, or international students. Postgraduate study is perceived as involving the capacity to interact with advanced levels of learning materials compared to undergraduate and some postgraduate students face problems such as assignments, deadlines, using library service, management of time, writing skills, and challenges with advanced learning materials (O'Donnell et al., 2009). First-year university students perceive this transition period as an opportunity to evolve from adolescents to adults who are independent and not bound by the rules and control of family or school (Elias et al., 2010). However, they also faced multiple challenges such as adapting to a new social setting, showing active participation in the university community, and coping with the separation from friends and family (Credé & Niehorster, 2011) while they approach the final years of the university, they might experience stress through job-seeking, and career planning (Ozer, 2016).

Young people who started university in a different city suddenly find themselves in a different social and academic environment. Entering college requires youths to face multiple transitions, including changes in their living arrangements, academic environment, and friendship. While some university students continue to live with their families during the university period, some of them leave their families for the university and start to live in private studios, student accommodations, or shared houses. The university period in which young

adults become independent from their families, separating from their direct parental support, is significantly influenced by the quality of the relationship between students and their families (Crede & Niehorster, 2011).

According to Chow (2005), there is a positive association between better living conditions, which include the physical quality of the living environment and whom they live with, and life satisfaction among university students. Adolescents who live with their families appeared to be a protective factor against higher-risk emotional and behavioral problems, as they were more prone to be categorized as having low emotional and physical risk (McCarthy & Brack, 1996). University students experience separation from their family home (Blichfeldt & Gram, 2013) and this shift might cause separation from their support networks as well (Beck et al., 2003). University students who often reside away from their families have a higher need for their families compared to other demographic groups (Schnettler et al., 2013). According to a study by Gomez-Baya et al. (2020), a positive family atmosphere is linked with greater satisfaction with life among 9281, 12-year-old adolescents in eight European countries. Adults serve as role models for love and forgiveness and might help children recognize their family as a secure and supportive place to which they can return when needed, even being apart (Parke & Buriel, 1998).

### **1.1. Psychological Resilience**

When individuals are faced with stressful situations, some of them experience a negative mood that persists for a long time, while some of them can get out of this mood within a short period and return to their routines (Dogan, 2015). While some people may exhibit strong coping mechanisms even in traumatic circumstances, others could feel overwhelmed and go through emotional breakdowns. Recognizing the enormous individual variances in people's reactions to similar circumstances is the first step to understanding resilience (Rutter, 2006).

Psychological resilience is defined as the ability to bounce back or recover from stress (Smith et al., 2008). There are also different definitions of psychological resilience. Gavino (2015) indicated that some researchers define psychological resilience for individuals as an ability (Bonanno, 2004), process (Masten et al., 1990), or personality characteristic (Connor & Davidson, 2003; Wagnild & Young, 1993). According to Masten (2011), psychological resilience is the capacity to respond positively and employ efficient coping mechanisms to overcome challenges including challenging circumstances that could endanger an individual's personal development. According to the American Psychology Association Dictionary, resilience is the process and result of overcoming difficult or demanding life situations, particularly through mental, emotional, and behavioral flexibility and adaptation to internal and external challenges. Wright et al. (2013) defined psychological resilience as a dynamic system that shows vitality, resilience, and a strong capacity to recover from events that threaten growth. This study has addressed psychological resilience by utilizing the definition of Smith et al. (2008), the ability to bounce back or recover from stress.

Psychological resilience has a crucial meaning for university students, especially due to the challenging nature of university experiences such as academic responsibilities, finances, and keeping the balance between academic and personal lives (Pidgeon & Keyes, 2014). According to Turner et al. (2019) university students' new stressful experiences provide moments where they benefit from their psychological resilience to enhance their well-being. Psychological resilience enables them to protect their well-being from potential stressors in a university environment.

## **1.2. Satisfaction with Life**

Life satisfaction is a term that describes a cognitive judgemental process (Diener et al., 1985) According to Diener et al. (1985), life satisfaction is a crucial component of people's

positive evaluation of their entire lives and overall happiness. Beutell (2006) indicated that life satisfaction is a general evaluation of an individual's attitudes and feelings toward their life at a specific period. Pavot and Diener (1993) indicated that life satisfaction is a component of subjective well-being, and it is important to emphasize overall life satisfaction instead of specific domain satisfaction due to the subjective nature of evaluating one's life based on individual criteria, which can differ among individuals. Life satisfaction is regarded as a sense of competence achieved by overcoming risk factors and using protective factors within oneself and the surrounding environment (Diener, 1984).

Life satisfaction is an essential aspect of overall well-being for individuals, and the university years represent a period of transition as students prepare for adulthood and their future careers (Gokalp & Topal, 2019). Transition to adulthood which is a more independent phase of life compared to childhood makes university students susceptible to challenges in maintaining life satisfaction (Slavinski et al., 2021).

### **1.3 Family Functionality**

A family unit's health can be determined by its ability to solve problems together and to incorporate each member's responsibilities to the rest of the unit into its routine (Ryan et al., 2005). The researchers developed two major theories about family functioning which were result-oriented and process-oriented. The result oriented describes family functioning based on specific family characteristics while the process-oriented based on the idea that the impact of the family system has an influence on an individual's well-being by understanding how the family functions instead of family structure characteristics (Dai & Wang, 2015).

The McMaster Family Functioning Mode Theory proposed by Epstein et al. (1983) can be given as an example of process oriented. According to McMaster Family Functioning

Model, basic family functioning refers to accomplishing tasks for meeting basic needs such as providing food and clothing, as well as developmental tasks for supporting the development of family members (Waithaka et al., 2019). Problem-solving, communication, affective response, affective involvement, behavior control, and family roles are six areas of the McMaster Family Functioning Model (Epstein et al., 1978). The McMaster Family Assessment Device (FAD; Epstein et al., 1983) has been developed to evaluate families according to this model. The six areas refer to six different subscales in the questionnaire, in addition, there is 7th subscale for evaluating overall functioning named General Functioning which was used in this study. The McMaster Model is grounded on System Theory which emphasizes the i) interconnection of all components of the family, ii) the importance of focusing on all parts of the family not isolating one part from the rest of the system iii) studying family functioning requires more than just studying individual family members or subgroups. iv) the role of the structure and organization of a family and transactional patterns of the family system on family members' behavior (Miller et al., 2000).

The family serves as the children's first friends who are lifelong supporters (Waithaka et al., 2019) and first social environment, giving them a basis for attitudes and values, the first and most significant role models (Garmienè et al., 2006). The family is one of the most critical risks and resilient factors for mental health in adolescence and emerging adulthood (AlShawi et al., 2014). Rutter (1996) indicated that the family system is one of the factors that shape resilience and positive experiences might have a mitigative function such as neutralizing negative consequences rather than automatically causing high levels of resilience.

There are several studies in the literature which focused on the role of family-related factors on well-being. In terms of studies focusing on family support; the study conducted by Hu and Cai (2022) among high school students found that positive mental well-being is

significantly linked to their perceived family support, emphasizing the important role of family support in fostering positive mental health in early adolescence. Regarding the university population, results of a study conducted with 487 Mexican college students across the United States showed that family support was associated with better psychological outcomes, such as lower depression, %66.7 of the sample were first gen which means that being first ones from their families who went to university, but the findings also showed that being first gen did not impact the results (Jimenez et al., 2022)

Regarding adolescence, Cacioppo et al. (2013) found a positive correlation between family functioning and overall life satisfaction in the study they conducted among 255 Italian adolescents whose age ranges from 15 to 17. The findings showed that adolescents' positive perceptions of a well-functioning family system had a positive effect on their satisfaction with life in various aspects.

Szczęśniak and Tułeczka (2020) found an indirect positive association between family functioning and life satisfaction by the mediating effect of emotional intelligence in the adult population. In the study by Botha and Booysen (2014) conducted with South African households; the findings showed that as well as attachment and changeability improved family functioning also positively correlated with life satisfaction and happiness. Additionally, the findings also suggest that family interactions play an important role in shaping an individual's overall well-being. The term "protective factors" refers to the conditions that reduce the destructive impact of difficulties, risks, and traumas, promoting healthy adaptation and enhancing an individual's coping and problem-solving abilities (Masten, 1994), these factors also serve as buffers in the face of challenges (Masten, 2001). Family environmental factors and the quality of the parent-child relationship may serve as protective factors in times of significant life stress (Masten et al., 1990). Considering that familial factors and positive

parent-child relationships are protective factors, examining the influence of these factors can be effective for students' coping skills with the difficulties they may face during the university period and their healthy adaptation to the university. In the literature the studies conducted with the university population showed that positive perception towards family has a positive impact on life satisfaction (Carranza Esteban et al., 2022), the life satisfaction of women students increased during the COVID-19 pandemic when the satisfaction with family functioning increased (Zarei & Fooladvand, 2022), that family support has a positive effect on both academic and life satisfaction of university students (Vautero et al., 2021), perceived social support from families and friends is associated with high life satisfaction (Schnettler et al., 2017).

#### **1.4 Positive Childhood Experiences**

Individuals might experience many different life events during childhood that can affect their physical and mental health in adulthood (Dogan & Aydin, 2020). Individuals who have positive childhood experiences have a positive impact on their later lives. (Bethell et al., 2019, Kocaturk & Cicek, 2023). The HOPE (Health Outcomes from Positive Experiences) framework which emphasizes the importance of fostering positive childhood experiences indicated four elements of Positive Childhood Experiences such as i) being in a secure and protective environment ii) having supported and nurturing relations iii) acquiring social and emotional skills iv) being socially engaged and connected. These positive experiences might be beneficial for building children's resilience and lessen the negative effect of adverse childhood experiences (Sege & Harper Browne, 2017). Positive childhood experiences may play a role in an individual's psychological resilience and self-esteem during psychological development in adolescence and adulthood (Kocaturk & Cicek, 2023). Positive emotional

experiences contribute to developing resources for living well, playing a crucial role as predictors of psychological resilience and life satisfaction (Cohn et al., 2009).

The findings obtained in various studies conducted with university populations showed that positive childhood experiences predict resilience and self-esteem (Kocaturk & Cicek, 2023), increase in positive childhood experiences is a protective factor associated with outcomes that strengthen emotional and mental health in adulthood (Hanson et al., 2022), positive childhood experiences act as a protective mechanism against adverse childhood experiences (Yu et al., 2022).

In recent years, positive psychology studies have emphasized that the absence of only negative emotions in individuals' lives is not enough for well-being; positive emotions such as happiness, hope, well-being, and resilience should also be experienced at an adequate level, noting the importance of studying people's strengths and abilities (Dogan & Aydin, 2020; Gable & Haidt, 2005; Zakeri et al., 2020). Positive psychology studies show that having negative experiences in one's life is not enough for high levels of well-being and mental health, the absence of emotions such as fear anger sadness does not guarantee the experience of positive emotions such as joy and trust (Dogan & Aydin, 2020). With the increase in studies on positive psychology, the focus of psychological research has increasingly shifted towards satisfaction with life and positive emotional experiences (Proctor et al., 2009).

The parent-child relationship is recognized as a significant factor in the development of resilience in individuals (Zakeri et al., 2010). The literature demonstrates that parental support is significantly correlated with adolescents' psychological resilience (Tian et al, 2018), and life satisfaction (Jimenez Iglesias et al., 2017). Moreover, the positive effect of family support has a positive impact on well-being (Trong et al., 2023) According to a study conducted by Gribble et al. (1993), parent-child relationships have a significant protective effect on promoting

psychological resilience in 4th to 6th-grade students, even in presence of significant life stressors.

There are various studies in the literature that focus on the effect of positive childhood experiences on adverse life events and psychological disorders. Bethell et al. (2019) indicated that among individuals who were exposed to adverse childhood experiences, individuals who have more positive childhood experiences showed better lifelong mental and relational health than those with fewer positive childhood experiences. Skodol et al. (2007) indicated that positive experiences and positive peer relationships in childhood and adolescence are related to young adults' psychological resilience and remission from avoidant and schizotypal personality disorders. According to a study by Elmore et al. (2020), growing up in a secure and stable environment and lack of resilience measures related to child resilience were related to depression in children and adolescents. In the study conducted by Wang et al. (2021) with the adolescent population, the results showed that adverse childhood experiences serve as risk factors for depression and anxiety in adolescence. The results also highlighted that positive childhood experiences within the home, neighbourhood, and school act as protective factors against these mental issues. Richard and Huppert (2011) conducted a longitudinal study with children whose well-being was evaluated at the age of 13-15 and were followed up at the age of 36, 43, and 53 and obtained findings that positive childhood experiences are positively related to well-being in middle age and happiness in childhood is also negatively related to mental health problems in adulthood. Considering the prevalence of mental disorders and anxiety among university students (Pedrelli et al., 2014; Zivin et al., 2009;) emphasizing the importance of positive childhood experiences as a protective factor may contribute to enhancing the well-being of the students.

## **1.6 The Present Study**

This study aims to examine the relationship between family functioning and positive childhood experiences on university students' psychological resilience and life satisfaction. Since many university students live apart from their families, this study also aims to investigate whether there is a significant difference between psychological resilience and satisfaction with life of university students who live with their families and those who do not.

Hypothesis 1 (H1): High levels of perceived family functioning will be associated with high levels of psychological resilience and life satisfaction and perceived family functioning will predict life satisfaction and psychological resilience.

Hypothesis 2 (H2): More positive childhood experiences will be associated with high levels of psychological resilience and life satisfaction and positive childhood experiences will predict life satisfaction and psychological resilience.

Hypothesis 3 (H3): it is expected to be a significant difference in terms of psychological resilience and life satisfaction between university students who live with their families and those who do not live with their families.

## **2 Methods**

### **2.1 Design**

This study was a cross-sectional and observational study with a quantitative research method. The study was an online external study conducted through Gorilla Online Experiment Builder. Spearman's Correlation Matrix was examined to reveal significant correlations among all variables. For regression, two separate Simple Linear Regression analyses were conducted to bring further consideration to significant correlations in each hypothesis. The independent

variable was family functionality, and the dependent variable was life satisfaction for H1. The independent variable was positive childhood experiences, and the dependent variable was life satisfaction for H2. For H3, the Mann-Whitney U test was used. The dependent variables were life satisfaction and psychological resilience for two different analyses, and they were examined by splitting by different living arrangements.

## **2.2 Participants**

This study aimed to recruit 85-90 participants which were university students in the UK and over the age of 18. All participants needed to be able to read and understand English. A total of 90 participants were recruited for this study. Several ways have been followed in the process of data collection. One of them was using the SONA Psychology Research Participation System and offering 0.5 credits to Anglia Ruskin University students for their participation in the study. Some of the participants reached the study through SONA. Another method was reaching the participants through social media accounts (Instagram and WhatsApp) and email groups. The study link is shared with a study description.

In total 138 participants reached the study. 63 participants were recruited through the Sona System, and 3 of them did not complete the study. 75 participants were recruited through social media and mail groups, 43 did not complete the study, and two were excluded from the study because they did not meet the requirement of being over the age of 18. In other words, a total of 60 of the participants were recruited through the SONA System, while the remaining 30 were reached through email groups and social media platforms. So total sample of 90 took part in the study. 44 of the participants reported that they currently lived with their family, while 46 of them stated that they did not live with their family.

## 2.3 Measures

### 2.3.1 Psychological Resilience

Brief Psychological Resilience Scale (BPRS; Smith et al., 2008) was used in this study to evaluate a person's capacity to bounce back from stressful life events. The scale consists of six items on a 5-point Likert scale (1 = *strongly disagree*, 2 = *disagree*, 3 = *neutral*, 4 = *agree*, and 5 = *strongly agree*). Items 1, 3 and 5 are positively worded such as "I usually come through difficult times with little trouble" and items 2, 4, and 6 are negatively worded such as "I have a hard time making it through stressful events". The BRS is scored by determining the mean of the six items by reverse scoring three negatively worded items. The Brief Psychological Resilience Scale allows for a possible score range of 1 (low resilience) to 5 (high resilience). The BRS has satisfactory internal consistency ( $\alpha = .80-.91$ ) and consistency over time (test-retest reliability with ICC = .62-.69; Smith et al., 2008).

### 2.3.2 Satisfaction with Life

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) measured life satisfaction using five items and participants indicated their agreement using a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). To obtain a total score, the responses to individual items were summed. Higher total scores indicated a higher level of life satisfaction. The total scores between 5 to 9 indicate extremely dissatisfied, 10 to 14 indicate dissatisfied, 15 to 19 refers to slightly dissatisfied, 20 refer to neutral, 21-25 refers to slightly satisfied, 26 to 30 refer to satisfied, and 31 to 35 is extremely satisfied. The internal consistency was high with the coefficient alpha ranging from .79 to .89 (Diener et al., 1985).

### **2.3.3 Family Assessment Device, General Functioning Subscale**

The Family Assessment Device (FAD; Epstein et al., 1983) is based on the McMaster Model of Family Functioning. The FAD consisted of seven subscales which measure Affective Involvement, Problem-Solving, Roles, Communication, Behavior Control, Affective Responsiveness, and General Functioning (Epstein et al., 1983). In this study the seventh subscale, General Functioning, was used for measuring family functioning. The seventh subscale can be used solely for evaluating the perceived family functioning (Boterhoven de Haan et al., 2015; Cong et al., 2022; Epstein et al., 1983).

The McMaster Family Assessment Device–General Functioning Subscale (FAD-GF; Epstein et al., 1983) consists of twelve items. Participants responded to these 12 items on a 4-point Likert scale. This questionnaire consists of positive-worded items such as “Individuals are accepted for what they are.” and negative-worded items such as “We don't get along well together.” After reverse scoring six negatively worded items, a mean score is calculated by averaging the item scores. Lower scores reflect higher levels of family functioning. This scale has a Cronbach's alpha value of .92 (Epstein et al., 1983).

### **2.3.4 Positive Childhood Experiences Scale**

Positive Childhood Experiences (PCEs; Bethell, 2019) were used for measuring the positive childhood experiences of individuals before the age of 18. Participants responded on the 7-item scale based on “Yes/No” questions and indicated how many positive childhood experiences they experienced when they were before the age of 18. The internal consistency (Cronbach's alpha) value was .77 (Bethell et al., 2019).

## **2.4 Ethics**

The study was approved by the School of Psychology and Sport Science Research Ethics Panel and ratified by the Faculty Research Ethics Panel at Anglia Ruskin University. The data were gathered anonymously from participants and participants were not obligated to answer any questionnaire that they did not wish to. Participants had the option to refuse to take part in any step of the study without giving any reason. The details of on-campus services were provided at the end of the study for participants if they needed any physical health and mental health support.

## **2.5 Procedure**

The ‘Gorilla’ online experiment builder was used in this study for data collection. Firstly, participants agreed to take part in the study through a participant consent form. Then they were asked to provide some demographics. They approved that they were over the age of 18. The participants who were not over 18 automatically directed at the end of the study so they could not proceed. After participants were asked whether they currently lived with their families or not and whom they lived with. After consenting and providing some demographics participants were asked to fill out the Family Assessment Device-General Functioning Subscale (FAD-GF; Epstein et al., 1983), Brief Psychological Resilience Scale (BPRS; Smith et al., 2008), Positive Childhood Experiences (PCEs; Bethell, 2019), and The Satisfaction with Life Scale (SWLS; Diener et al., 1985). After completing the questionnaires, participants were debriefed on the study's aims and provided information about services that they could use for any well-being concerns for taking part and thanked for their participation. Participants who were recruited through the SONA (Psychology Research Participation System) were

automatically directed to the SONA website and rewarded with 0.5 credits after being debriefed.

## **2.6 Analysis Plan**

The Jamovi software (version 2.3.21) was used for analysing the data. Firstly, it is planned to do preliminary assumption checking. Then the correlation matrix was examined to reveal significant associations between variables. While testing H1, the results of correlation analysis revealed a significant association between perceived family functioning and life satisfaction however there was no association between perceived family functioning and psychological resilience as covered in the results section. While testing H2, the correlation analysis revealed a significant association between positive childhood experiences but there was no association between positive childhood experiences and psychological resilience. Therefore, both hypotheses could not be completely accepted. No further regression analysis was conducted due to the lack of significant correlations between family functioning and positive childhood experiences with psychological resilience. Since there were significant associations between positive childhood experiences, family functioning, and life satisfaction, separate regression analyses were conducted for perceived family functioning and life satisfaction and positive childhood experiences and life satisfaction instead of conducting multiple regression as two independent variables (positive childhood experiences and family functioning) and one dependent variable (life satisfaction). This was because of the presentation of the hypothesis and the presence of a significant strong correlation between positive childhood experiences and perceived family functioning, which could lead to multicollinearity issues. The section related to the formulation of hypotheses has been also discussed in the limitations.

### 3 Results

In the preliminary assumption checking, it was determined that all variables had Z-scores within the range of -3 to 3, indicating that there were no univariate outliers with standardized residuals exceeding  $\pm 3$  standard deviations. So no participants were excluded from the data set. The scores of 90 participants measured for positive childhood experiences ( $M = 4.88$ ,  $SD = 1.90$ ); life satisfaction ( $M = 22.8$ ,  $SD = 6.90$ ); perceived family functioning ( $M = 2.15$ ,  $SD = .577$ ); psychological resilience ( $M = 3.07$ ,  $SD = .287$ ) as shown in Figure 1. In terms of normality, the data were not normally distributed as evidenced by the Shapiro-Wilk test for scores of positive childhood experiences ( $W = .892$ ,  $p < .001$ ); psychological resilience ( $W = .942$ ,  $p < .001$ ); life satisfaction ( $W = .858$ ,  $p < .001$ ); however, the data were normally distributed for perceived family functioning ( $W = .981$ ,  $p = .198$ ). For non-normal distribution, transforming variables (using log transformations) was considered as a method for obtaining normal distribution but it could not be achieved so the data did not log-transformed. Since scores of psychological resilience, life satisfaction, and positive childhood experiences were not normally distributed, Spearman's Correlation was computed to examine the correlations of these variables.

Hypothesis 1 tested the presence of a relationship between family functionality, psychological resilience and life satisfaction and results revealed a negative and significant correlation between perceived family functioning and life satisfaction,  $\rho = -.443$ ,  $p < .001$ . Since high scores on FAD-GF indicate low family functionality, obtaining a negative correlation supported the study hypothesis. The Spearman Correlation results revealed that there was no significant correlation between perceived family functioning and psychological resilience  $\rho = -.134$ ,  $p = .261$ .

**Table 1**

| <i>Descriptive scores and correlations between the variables (N = 90)</i> |      |      |          |          |      |        |
|---------------------------------------------------------------------------|------|------|----------|----------|------|--------|
| Variables                                                                 | Mean | SD   | SWLS     | PCEs     | BPRS | FAD-GF |
| SWLS                                                                      | 22.8 | 6.90 |          |          |      |        |
| PCEs                                                                      | 4.88 | 1.90 | .430***  |          |      |        |
|                                                                           |      |      | < .001   |          |      |        |
| BPRS                                                                      | 3.07 | .287 | -.134    | .040     |      |        |
|                                                                           |      |      | .208     | .705     |      |        |
| FAD-GF                                                                    | 1.15 | .577 | -.443*** | -.533*** | .120 |        |
|                                                                           |      |      | < .001   | < .001   | .261 |        |

*Notes.* SWLS: Satisfaction with Life, PCEs: Positive Childhood Experiences, BPRS: Brief Psychological Resilience, FAD-GF: Family Functioning- General Functioning Subscale, \* $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

Regression analysis was conducted to test whether perceived family functioning predicted life satisfaction. Firstly, assumption checks were conducted. Both the dependent variable (life satisfaction) and independent variable (family functioning) were continuous. There were no outliers based on Z score checking in the preliminary analysis. It was also supported by Cook's distances which were small and lower than 1. In regression analysis, even if the variables are not normally distributed, it is necessary for the residuals to follow a normal distribution (Habeck & Brickman, 2018; Williams et al., 2019) As evidenced by Shapiro Wilk, the residuals distributed normally ( $W = .923$ ,  $p = .056$ ) Residuals of Q-Q plots were also examined to check homogeneity of variance (homoscedasticity), the data did not appear to exhibit greater variability at a specific point and looked more randomly scattered. In terms of independence of residuals, the value of the Durbin-Watson test for autocorrelation was 2.17 which was close to 2 as expected so was met the assumption that residuals were independent.

The results of the regression (please see Table 2) showed that perceived family functioning explained 23.4% of the variance,  $R^2 = .234$ ,  $F(1, 88) = 26.9$ ,  $p < .001$ . Perceived family functioning significantly predicted university students' life satisfaction,  $b = -.5.79$ ,  $\beta = -.484$ ,  $p < .001$ . The results indicated that perceived family functioning significantly explains university students' life satisfaction, and this relationship can be considered strong. As lower scores in the FAD-GF subscale (which assesses family functioning) indicated higher levels of family functioning, the results of regression analysis supported the relationship between higher levels of family functionality and life satisfaction.

**Table 2***Regression Coefficients of Perceived Family Functioning on Life Satisfaction*

| Variable           | <i>B</i> | $\beta$ | <i>SE</i> |
|--------------------|----------|---------|-----------|
| Constant           | 35.24*** |         | 2.48      |
| Family Functioning | -5.79*** | -.484   | 1.12      |
| $R^2$              | .234     |         |           |

Note.  $N = 90$

\*\*\* $p < .001$

Hypothesis 2 examined the relationship between positive childhood experiences and life satisfaction using a Spearman Rank Order Correlation test, which revealed a significant positive association between the variables,  $\rho = .430$ ,  $p < .001$ . Positive childhood experiences and psychological resilience were not correlated,  $\rho = -.040$ ,  $p = .705$ . To further investigate whether positive childhood experiences predicted life satisfaction a regression analysis was conducted. Both the independent variable (positive childhood experiences) and the dependent variable (life satisfaction) were continuous. There were no outliers detected in the preliminary

analysis, it was also supported by Cook's distance. As evidenced by Shapiro-Wilk, the residuals were distributed normally ( $W = .987, p = .516$ ). Residuals of Q-Q plots also showed the data did not exhibit greater variability at a specific point and looked more randomly scattered. In terms of independence of residuals, the value of the Durbin-Watson test for autocorrelation was 1.82 which was close to 2.

The results of the regression showed that positive childhood experiences explained 29% of the variance,  $R^2 = .290, F(1, 88) = 26.9, p < .001$ . Positive childhood experiences significantly predicted university students' life satisfaction,  $b = 1.96, \beta = .539, p < .001$ .

**Table 3**

*Regression Coefficients of Positive Childhood Experiences on Life Satisfaction*

| Variable                       | <i>B</i> | $\beta$ | <i>SE</i> |
|--------------------------------|----------|---------|-----------|
| Constant                       | 13.28*** |         | 1.706     |
| Positive Childhood Experiences | 1.96***  | .539    | .326      |
| $R^2$                          | .290     |         |           |

*Note.*  $N = 90$

\*\*\* $p < .001$

Hypothesis 3 compared the relationship between the students who live with their families and those who do not live with their families in terms of psychological resilience and life satisfaction. The data were not normally distributed as evidenced by Shapiro Wilk result ( $W = .929, p < .001$ ). Mann Whitney- U test results revealed that the two groups that differed by their living arrangements (who live and do not live with their families) showed no significant differences in terms of their psychological resilience,  $U = 871, p = .242, r = .140$ . There was also no significant difference among the two groups in terms of their life satisfaction,  $U = 835, p = .152, r = .175$ . So, H3 was rejected.

**Table 4**

*Mann Whitney U-Test for the difference between two groups in terms of resilience and life satisfaction*

| Variables | Who live with<br>their families |      | Who do not live<br>with their families |      | U   | p    | Rank biserial correlation |
|-----------|---------------------------------|------|----------------------------------------|------|-----|------|---------------------------|
|           | M                               | SD   | M                                      | SD   |     |      |                           |
| SWLS      | 23.7                            | 7.10 | 25.5                                   | 6.67 | 835 | .152 | .175                      |
| BPRS      | 3.03                            | .229 | 3.10                                   | .332 | 871 | .242 | .140                      |

**Notes.** SWLS: Satisfaction with Life, BPRS: Brief Psychological Resilience; university students who live with their families (n = 44) and who do not live with their families (n = 46)

#### 4 Discussion

The aim of the present study is to examine the relationship between perceived family functionality and positive childhood experiences of university students with their psychological resilience and life satisfaction. Additionally, this study aims to investigate whether there is a significant difference in terms of life satisfaction and psychological resilience between university students who live with their families and those who do not.

In this study, it was hypothesized that perceived high levels of family functioning might be associated with higher levels of psychological resilience and life satisfaction and family functioning will predict psychological resilience and life satisfaction. The different reactions that individuals show under similar stressful conditions might be related to their psychological resilience, which refers to the ability to bounce back or recover from stress (Rutter, 2006; Smith et al., 2008). Families of students contribute to their child's enhancement of resilience by

providing social support and protecting them from adverse life events and potential stressors. The way university students perceive their family situation and the quality of their lives which is determined by the sense of fulfillment based on their interests and life goals, is linked to their family functionality and overall life satisfaction (García-Martínez et al., 2021) The study findings revealed a significant correlation between higher levels of perceived family functionality and higher life satisfaction and also family functioning predict life satisfaction according to regression analysis results. This finding was parallel with previous studies in the literature (Botha & Booysen, 2014; Cacioppo et al., 2013; Carranza Esteban et al., 2022; Schnettler et al., 2017; Szcześniak & Tułeczka, 2020; Vautero et al., 2021 Zarei & Fooladvand, 2022).

The second study hypothesis was that more positive childhood experiences will be associated with higher levels of psychological resilience and life satisfaction and positive childhood experiences will also predict psychological resilience and life satisfaction. If an individual grew up in a trusting and secure environment, where their physical and psychological needs were met, and they experienced happiness, care, love, and appreciation, it can be considered a positive childhood. Positive childhood experiences should also be considered as a protective internal resource for an individual's psychological resilience (Dogan & Aydin, 2020) In the longitudinal study conducted by Richards and Huppert (2011), positive childhood experiences were found positively associated with well-being, and negatively associated with mental health problems in adulthood. The definition of life satisfaction which is a component of subjective well-being (Pavot & Diener, 1993) needs to be considered as well for understanding the association between positive childhood experiences and life satisfaction.

The present study findings revealed a significant positive correlation between positive childhood experiences and life satisfaction and positive childhood experiences predicted life

satisfaction. In contrast to studies that revealed an association between positive childhood experiences and psychological resilience (Gribble et al., 1993; Jimenez Iglesias et al., 2017; Kocaturk & Cicek, 2023; Skodol et al 2007), no significant association was found between positive childhood experiences and psychological resilience in the present study.

In university life, some students continue to live with their families, while others separate from their families to live alone or with a partner, roommates, etc. While leaving the family home allows students to experience a sense of independence, some students find this challenging because this separation might also imply a separation from their support networks (Beck et al., 2003) and a higher need for their families (Schnettler et al., 2013). Therefore, it was hypothesized that there may be a significant difference between students who live and who do not live with their families, in terms of psychological resilience and life satisfaction. The present study results did not show a significant difference in terms of psychological resilience and life satisfaction between university students who live with their families at university and those who do not.

### **Strengths, Limitations, and Future Directions**

Firstly, significant correlations were found, and these findings were parallel to other studies in the literature so this can be considered as strengths of the study. Additionally, this study differed from other studies in the literature in terms of including family functioning, positive childhood experiences, life satisfaction, resilience, and living arrangements in the same study and focused on a different population which were university students.

Positive psychology studies extended traditional problem-focused approaches by focusing on elements such as happiness, hope, optimism, and individuals' strengths and

abilities (Park et al., 2014). Positive psychology studies emphasize that the absence of negative experiences during childhood is not solely enough but also experiencing positive childhood experiences at an adequate level is important. Most of the studies in the literature focus on the effects of adverse childhood experiences on psychological resilience (Kelifa et al., 2020; Sciaraffa et al., 2018; Soleimanpour et al., 2017; Zhang et al., 2021) and life satisfaction (Hughes et al., 2016; Mosley-Johnson et al., 2019; this study is important in terms of its focus on positive childhood experiences.

In terms of limitations of the present study; the correlation and regression analysis results were not sufficient to provide a cause-effect relationship between the two variables. Another limitation of this study was that the data did not show the normal distribution for psychological resilience, life satisfaction, and positive childhood experiences, so nonparametric correlation analysis was used in this study which made the results less robust. Spearman's Correlation analysis did not provide detailed information about the association and did not provide cause-and-effect relationships regarding the nature of correlation analysis. Additionally, cross-sectional studies, are based on data from specific points of time so it is not enough to establish causal relationships and observe the differences over time. Therefore, longitudinal studies may be conducted in the future. For instance, future studies might focus on the change observed at different levels of the university years.

Another limitation was the potential impact of confounding variables. In the present study, information regarding age, gender, socioeconomic status, and family structure was not collected from participants so the potential effects of these variables were not taken into consideration or controlled. In future studies, the effects of these kinds of variables might be considered as well.

Another limitation was related to the living arrangement question. After asking participants whether they lived with their families or not, a follow-up question was asking whom they lived with. Among two participants who live with their spouses and children; one considered his/her current family while the other considered their family of origin (with his/her own parents). This misconception did not alter the results; however, it was seen that the question needed to be clearer.

Another limitation of this study was about measurement of family functionality. University students' family functioning was evaluated based on their own perceptions, depending only on the answers of individuals. Family functionality requires considering the family as a whole and understanding the interactions and transactional patterns between all family members (Miller et al., 2000). However, this study did not measure family functionality based on the answers of individuals and did not include the responses of other family members, which may cause limitations on the evaluation of family functionality and may indicate that a complementary perspective might be needed. Family members might also be included in the sample to evaluate family functionality more comprehensively in future studies.

In the Positive Childhood Experiences Scale (PCEs; Bethell et al., 2019); participants were asked to respond with Yes/No to the questionnaire items. Later these responses were converted into continuous variables by creating sum scores to measure how many positive childhood experiences each participant had. Yes/No based questions have more limited measurement sensitivity compared to Likert-type scales, and using these responses might cause the loss of some details and variations in the data.

This study recruited university students. In the present study university students were not examined as different student groups such as undergraduate, graduate, or international students. There might be differences among different groups in terms of their university experiences. For example, to understand the differences between undergraduate, postgraduate, or doctorate students, whether education levels make a difference in terms of life satisfaction and psychological resilience might be examined, or studies focused on international students might be conducted. Focusing on different populations at the university can also be useful in developing support mechanisms specific to these groups.

This study was conducted specifically with university students in the United Kingdom. Data from different countries were not collected and information about the ethnic origins of the participants was not collected. Therefore, cross-cultural studies might be carried out for future studies. Cross-cultural studies involve participants from different cultural backgrounds, which provides an opportunity to study cultural differences. Such cross-cultural studies enable us to better understand students' university experiences considering cultural differences and help to develop more effective support programs.

One limitation of the study was related to the formulation of hypotheses. The study results did not reveal a significant association between perceived family functioning, positive childhood experiences, and psychological resilience. Since the first two study hypotheses indicated “High levels of perceived family functioning will be associated with high levels of psychological resilience and life satisfaction” and “More positive childhood experiences will be associated with high levels of psychological resilience and life satisfaction and positive childhood experiences will predict life satisfaction and psychological resilience”, we could not fully accept each hypothesis.

The results of this study emphasized the importance of family functionality and positive childhood experiences for the life satisfaction of university students. For this reason, with consideration of these significant associations, it is possible to organize educational programs, family workshops, and seminars aimed at increasing family functionality and positive childhood experiences. Support groups can be organized at universities to encourage students to share their challenging experiences at the university and support each other.

**Words excluding references and appendices: 7706**

## References

- AlShawi, A. F., & Lafta, R. K. (2014). Relation between childhood experiences and adults' self-esteem: A sample from Baghdad. *Qatar Medical Journal*, 2014(2), 82–91. <https://doi.org/10.5339/qmj.2014.14>
- American Psychological Association. (2020). *APA Dictionary of Psychology* (2nd ed.). <https://dictionary.apa.org/>
- AlShawi, A. F., & Lafta, R. K. (2014). Relation between childhood experiences and adults' self-esteem: A sample from Baghdad. *Qatar Medical Journal*, 2014(2), 82–91. <https://doi.org/10.5339/qmj.2014.14>
- American Psychological Association. (2020). *APA Dictionary of Psychology* (2nd ed.). <https://dictionary.apa.org/>
- Beck, R., Taylor, C., & Robbins, M. (2003). Missing Home: Sociology and Autonomy and Their Relationship to Psychological Distress and Homesickness in College Freshmen. *Anxiety, Stress, and Coping*, 16, 155-166. <https://doi.org/10.1080/10615806.2003.10382970>
- Bethell, C., Jones, J., Gombojav, N., Linkenbach, J., & Sege, R. (2019). Positive Childhood Experiences and Adult Mental and Relational Health in a Statewide Sample: Associations Across Adverse Childhood Experiences Levels. *JAMA Pediatrics*, 173(11), e193007. <https://doi.org/10.1001/jamapediatrics.2019.3007>
- Beutell, N. J. (2006). Life Satisfaction in Relation to Work and Family. *Work Family Researchers Network*.
- Blichfeldt, B. S., & Gram, M. (2013). Lost in transition? Student food consumption. *Higher Education*, 65(3), 277-289. <http://dx.doi.org/10.1007/s11205-013-0351-6>.

- Bonanno, G. A. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *The American Psychologist*, 59(1), 20–28. <https://doi.org/10.1037/0003-066X.59.1.20>
- Botha, F., & Booysen, F. (2014). Family functioning and life satisfaction and happiness in South African Households. *Social Indicators Research*, 119, 163–182. doi:10.1007/s11205-013-0485-6
- Boterhoven de Haan, K. L., Hafekost, J., Lawrence, D., Sawyer, M. G., & Zubrick, S. R. (2015). Reliability and validity of a short version of the general functioning subscale of the McMaster Family Assessment Device. *Family process*, 54(1), 116–123. <https://doi.org/10.1111/famp.12113>
- Cacioppo, M., Pace, U., & Zappulla, C. (2012). Parental psychological control, quality of family context and life satisfaction among Italian adolescents. *Child Indicators Research*, 6. doi:10.1007/s12187-012-9164-4
- Carranza Esteban, R., Mamani-Benito, O., Castillo-Blanco, R., Lingan, S., & Cabrera-Orosco, I. (2022). Influence of family and academic satisfaction on life satisfaction among Peruvian university students in the times of COVID-19: The mediating role of self-esteem. *Frontiers in Education*, 7. doi:10.3389/feduc.2022.867997
- Chow, H. P. H. (2005). Life satisfaction among university students in a Canadian Prairie City: A multivariate analysis. *Social Indicators Research*, 70(2), 139–150. doi:10.1007/s11205-003-5094-6
- Cohn, M. A., Fredrickson, B. L., Brown, S. L., Mikels, J. A., & Conway, A. M. (2009). Happiness unpacked: Positive emotions increase life satisfaction by building resilience. *Emotion*, 9, 361–368. doi:10.1037/a0015952
- Cong, C. W., Tan, S. A., Nainee, S., & Tan, C.-S. (2022). Psychometric Qualities of the McMaster Family Assessment Device–General Functioning Subscale for Malaysian

- Samples. *International Journal of Environmental Research and Public Health*, 19(4), 2440. <https://doi.org/10.3390/ijerph19042440>
- Connor, K. M., & Davidson, J. R. (2003). Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). *Depression and Anxiety*, 18(2), 76–82. doi:10.1002/da.10113
- Crede, M., & Niehorster, S. (2011). Adjustment to college as measured by the Student Adaptation to College Questionnaire: A quantitative review of its structure and relationships with correlates and consequences. *Educational Psychology Review*, 24, 133– 165. doi:10.1007/s10648-011-9184-5
- Cushner, K., & Karim, A. (2004). Study abroad at the university level. In D. Landis, J. Bennett, & M. Bennett (Eds.), *Handbook of intercultural training* (3rd ed., pp. 289–308). Sage.
- Dai, L., & Wang, L. (2015). Review of family functioning. *Open Journal of Social Sciences*, 3(12), 134–141. doi:10.4236/jss.2015.312014
- Dawson, M., & Pooley, J. (2013). Resilience: The role of optimism, perceived parental autonomy support, and perceived social support in first year university students. *Journal of Education and Training Studies*, 1, 38–46. doi:10.11114/jets.v1i2.137
- Diener, E. (1984). Subjective well-being. *Psychological Bulletin*, 95(3), 542–575. doi:10.1037/0033-2909.95.3.542
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71–75.
- Dogan, T., & Aydin, F. T. (2020). The development of the Positive Childhood Experiences Scale/Olumlu cocukluk Yaşantıları Ölçeği'nin Geliştirilmesi. *HAYEF: Journal of Education*, 17(1), 1–21. doi:10.5152/hayef.2020.1925

- Dogan, U. (2015). Student engagement, academic self-efficacy, and academic motivation as predictors of academic performance. *The Anthropologist*, 20, 553–561. doi:10.1080/09720073.2015.11891759
- Dorrance Hall, E., & Scharp, K. (2021). Communicative predictors of resilience skills during the transition to college. *Journal of Social and Personal Relationships*, 38(4), 1238-1258. <https://doi.org/10.1177/0265407520983467>
- Dou, D., Shek, D. T. L., Tan, L., & Zhao, L. (2023). Family functioning and resilience in children in mainland China: Life satisfaction as a mediator. *Frontiers in psychology*, 14, 1175934. <https://doi.org/10.3389/fpsyg.2023.1175934>
- Elias, H., Noordin, N., & Mahyuddin, R. H. (2010). Achievement motivation and self-efficacy in relation to adjustment among university students. *Journal of Social Science*, 6(3), 333-339.
- Elmore, A. L., Crouch, E., & Chowdhury, M. A. K. (2020). The interaction of adverse childhood experiences and resiliency on the outcome of depression among children and youth, 8–17 year olds. *Child Abuse & Neglect*, 107, 104616. <https://doi.org/10.1016/j.chiabu.2020.104616>
- Epstein, N. B., Bishop, D. S., & Levin, S. (1978). The McMaster Model of Family Functioning. *Journal of Marital and Family Therapy*, 4(4), 19–31. <https://doi.org/10.1111/J.1752-0606.1978.TB00537.X>
- Epstein, N. B., Baldwin, L. M., & Bishop, D. S. (1983). The McMaster Family Assessment Device. *Journal of Marital and Family Therapy*, 9(2), 171-180. doi: <https://dx.doi.org/10.1111/j.1752-0606.1983.tb01497.x>

- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G\*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, 39, 175-191.
- Gable, S. L., & Haidt, J. (2005). What (and why) is positive psychology? *Review of General Psychology*, 9(2), 103-110.
- García-Martínez, I., Landa, J. M. A., & León, S. P. (2021). The Mediating Role of Engagement on the Achievement and Quality of Life of University Students. *International Journal of Environmental Research and Public Health*, 18(12), 6586. <https://doi.org/10.3390/ijerph18126586>
- Garmiene, A., Zemaitiene, N., & Zaborskis, A. (2006). Family time, parental behavior model and the initiation of smoking and alcohol use by ten-year-old children: An epidemiological study in Kaunas, Lithuania. *BMC Public Health*, 6, 287.
- Gavino, M. F. (2015). Resilience: Personality in Adversity. 10.13140/RG.2.1.1787.7205.
- Gokalp, M., & Topal, T. (2019). Investigation of life satisfaction of university students according to various variables. *The Turkish Online Journal of Educational Technology*, 2(2), 16-23.
- Gomez-Baya, D., Muñoz-Silva, A., & García Moro, F. (2020). Family climate and life satisfaction in 12-year-old adolescents in Europe. *Sustainability*, 12(15), 5902. <https://doi.org/10.3390/su12155902>
- Greeff, A. P., & le Roux, M. C. (1999). Parents' and adolescents' perceptions of a strong family. *Psychological Reports*, 84(3 Pt 2), 1219–1224. <https://doi.org/10.2466/pr0.1999.84.3c.1219>

- Gribble, P. A., Cowen, E. L., Wyman, P. A., Work, W. C., Wannon, M., & Raoof, A. (1993). Parent and child views of parent-child relationship qualities and resilient outcomes among urban children. *Journal of child psychology and psychiatry, and allied disciplines*, 34(4), 507–519.  
<https://doi.org/10.1111/j.1469-7610.1993.tb01032.x>
- Habeck, Christian & Brickman, Adam. (2018). A common statistical misunderstanding in Psychology and Neuroscience: Do we need normally distributed independent or dependent variables for linear regression to work?. 10.1101/305946.
- Hanson, C. L., Magnusson, B. M., Crandall, A. A., Barnes, M. D., McFarland, E., & Smith, M. (2022). Life experience pathways to college student emotional and mental health: A structural equation model. *Journal of American college health : J of ACH*, 1–8. Advance online publication.  
<https://doi.org/10.1080/07448481.2022.2058328>
- Hu, S., & Cai, D. (2022). Development of perceived family support and positive mental health in junior high school students: A three-year longitudinal study. *The Journal of Early Adolescence*, 43(7), 1149-1166.  
<https://doi.org/10.1177/02724316221101534>
- Hughes, K., Lowey, H., Quigg, Z., & Bellis, M. A. (2016). Relationships between adverse childhood experiences and adult mental well-being: Results from an English national household survey. *BMC Public Health*, 16, 222. <https://doi.org/10.1186/s12889-016-2906-3>
- Jimenez, A., Piña-Watson, B., & Manzo, G. (2022). Resilience Through Family: Family Support as an Academic and Psychological Protective Resource for Mexican Descent

- First-Generation College Students. *Journal of Hispanic Higher Education*, 21(3), 352–363. <https://doi.org/10.1177/1538192720987103>
- Kelifa, M., Yang, Y., Herbert, C., He, Q., & Wang, P. (2020). Psychological resilience and current stressful events as potential mediators between adverse childhood experiences and depression among college students in Eritrea. *Child Abuse Review*, 29(2), 106–120. <https://doi.org/10.1002/car.2573>
- Khrapatina, I., & Berman, P. (2017). The impact of adverse childhood experiences on health in college students. *Journal of Child & Adolescent Trauma*, 10(3), 275–287. <https://doi.org/10.1007/s40653-016-0093-0>
- Kocaturk, M., & Cicek, I. (2023). Relationship Between Positive Childhood Experiences and Psychological Resilience in University Students: The Mediating Role of Self-Esteem. *Journal of Genetic Counseling*, 33, 78–89. <https://doi.org/10.1017/jgc.2021.16>
- Masten, A. S. (1994). Resilience in individual development: Successful adaptation despite risk and adversity. In M. C. Wang & E. W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 3–25). Lawrence Associates, Inc.
- Masten, A. (2011). Resilience in children threatened by extreme adversity: Frameworks for research, practice, and translational synergy. *Development and Psychopathology*, 23(2), 493–506. <https://doi.org/10.1017/S0954579411000198>
- Masten, A., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology*, 2(4), 425–444. <https://doi.org/10.1017/S0954579400005812>
- McCarthy, C. J., & Brack, C. J. (1996). Predicting emotional and behavioral risk factors in adolescents. *School Counselor*, 43(4), 277–286.
- Mosley-Johnson, E., Garacci, E., Wagner, N., Mendez, C., Williams, J. S., & Egede, L. E. (2019). Assessing the relationship between adverse childhood experiences and life

- satisfaction, psychological well-being, and social well-being: United States Longitudinal Cohort 1995-2014. *Quality of Life Research*, 28(4), 907–914.  
<https://doi.org/10.1007/s11136-018-2054-6>
- O'Donnell, V. L., Tobbell, J., Lawthom, R., & Zammit, M. (2009). Transition to postgraduate study: Practice, participation and the widening participation agenda. *Active Learning in Higher Education*, 10(1), 26-40. <https://doi.org/10.1177/1469787408100193>
- Ozer, E. (2016). Temel Benlik Değerlendirmesi, Basa Cikma Stratejileri ve Psikolojik Sağlık. *Journal of Turkish Studies*, 11, 587-587.  
<https://doi.org/10.7827/TurkishStudies.9536>
- Park, N., Peterson, C., Szvarca, D., Vander Molen, R. J., Kim, E. S., & Collon, K. (2014). Positive Psychology and Physical Health: Research and Applications. *American journal of lifestyle medicine*, 10(3), 200–206.  
<https://doi.org/10.1177/1559827614550277>
- Parke, R. D., & Buriel, R. (1998). Socialization in the family: Ethnic and ecological perspectives. In N. Eisenberg (Vol. Ed.) & W. Damon (Series Ed.), *Handbook of child psychology: Social, Emotional, and Personality Development*. New York, NY: Wiley.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment*, 5(2), 164-172.
- Pedrelli, P., Nyer, M., Yeung, A., Zulauf-McCurdy, C., & Wilens, T. (2014). College Students: Mental Health Problems and Treatment Considerations. *Academic Psychiatry*, 39(5), 503-511. <https://doi.org/10.1007/s40596-014-0205-9>
- Pidgeon, A. M., & Keye, M. (2014). Relationship between resilience, mindfulness, and psychological well-being in university students. *International Journal of Liberal Arts and Social Science*, 2(5), 27-32. Retrieved from  
<http://www.ijlass.org/data/frontImages/gallery/Vol. 2 No. 5/3.pdf>

- Proctor, C., Linley, P., & Maltby, J. (2009). Youth Life Satisfaction: A Review of the Literature. *Journal of Happiness Studies*, 10(5), 583-630. <https://doi.org/10.1007/s10902-008-9110-9>
- Richards, M., & Huppert, F. A. (2011). Do positive children become positive adults? Evidence from a longitudinal birth cohort study. *The journal of positive psychology*, 6(1), 75–87. <https://doi.org/10.1080/17439760.2011.536655>
- Rutter, M. (1996). Transitions and turning points in developmental psychopathology: As applied to the age span between childhood and mid-adulthood. *International Journal of Behavioral Development*, 19(3), 603–626. <https://doi.org/10.1080/016502596385712>
- Rutter, M. (2006). Implications of resilience concepts for scientific understanding. *Annals of the New York Academy of Sciences*, 1094, 1–12. <https://doi.org/10.1196/annals.1376.002>
- Ryan, C., Epstein, N. B., Keitner, G. I., Miller, I. W., & Bishop, D. S. (2005). *Evaluating and Treating Families: The McMaster Approach* (1st ed.). Routledge. <https://doi.org/10.4324/9780203843840>
- Sege, R. D., & Harper Browne, C. (2017). Responding to ACEs With HOPE: Health Outcomes From Positive Experiences. *Academic Pediatrics*, 17(7S), S79–S85. <https://doi.org/10.1016/j.acap.2017.03.007>
- Sciaraffa, M. A., Zeanah, P. D., & Zeanah, C. H. (2018). Understanding and promoting resilience in the context of adverse childhood experiences. *Early Childhood Education Journal*, 46(3), 343–353. <https://doi.org/10.1007/s10643-017-0869-3>
- Schnettler, B., Miranda, H., Sepúlveda, J., Denegri, M., Mora, M., Lobos, G., & Grunert, K. G. (2013). Psychometric properties of the satisfaction with food-related life scale:

- Application in southern Chile. *Journal of Nutrition Education and Behavior*, 45(5), 443–449. <https://doi.org/10.1016/j.jneb.2012.08.003>
- Schnettler, B., Miranda-Zapata, E., Grunert, K. G., Lobos, G., Denegri, M., Hueche, C., & Poblete, H. (2017). Life Satisfaction of University Students in Relation to Family and Food in a Developing Country. *Frontiers in Psychology*, 8, 1522. <https://doi.org/10.3389/fpsyg.2017.01522>
- Schweitzer, R. D. (1996). Problems and awareness of support services among students at an urban Australian university. *Journal of American College Health*, 45(2), 73–77. <https://doi.org/10.1080/07448481.1996.9936865>
- Skodol, A. E., Bender, D. S., Pagano, M. E., Shea, M. T., Yen, S., Sanislow, C. A., Grilo, C. M., Daversa, M. T., Stout, R. L., Zannarini, M. C., McGlashan, T. H., & Gunderson, J. G. (2007). Positive childhood experiences: Resilience and recovery from personality disorder in early adulthood. *The Journal of Clinical Psychiatry*, 68(7), 1102–1108. <https://doi.org/10.4088/jcp.v68n0719>
- Slavinski, T., Bjelica, D., Pavlovic, D., & Vukmirovic, V. (2021). Academic Performance and Physical Activities as Positive Factors for Life Satisfaction among University Students. *Sustainability*, 13(2), 497. <https://doi.org/10.3390/su13020497>
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J. (2008). The brief resilience scale: Assessing the ability to bounce back. *International Journal of Behavioral Medicine*, 15(3), 194–200. <https://doi.org/10.1080/10705500802222972>
- Soleimanpour, S., Geierstanger, S., & Brindis, C. (2017). Adverse Childhood Experiences and Resilience: Addressing the Unique Needs of Adolescents. *Academic Pediatrics*, 17, S108–S114. <https://doi.org/10.1016/j.acap.2017.01.008>

- Szcześniak, M., & Tułeczka, M. (2020). Family Functioning and Life Satisfaction: The Mediator Role of Emotional Intelligence. *Psychology Research and Behavior Management*, 13, 223–232. <https://doi.org/10.2147/PRBM.S240898>
- Tian, L., Liu, L., & Shan, N. (2018). Parent–Child Relationships and Resilience Among Chinese Adolescents: The Mediating Role of Self-Esteem. *Frontiers in Psychology*, 9, 1030. <https://doi.org/10.3389/fpsyg.2018.01030>
- Trong Dam, V. A., Do, H. N., Thi Vu, T. B., Vu, K. L., Do, H. M., Thi Nguyen, N. T., Nguyen, T. T., Thi Vu, T. M., Thi Nguyen, T. P., Auquier, P., Boyer, L., Fond, G., Latkin, C. A., Ho, C. S. H., & Ho, R. C. M. (2023). Associations between parent-child relationship, self-esteem, and resilience with life satisfaction and mental well-being of adolescents. *Frontiers in Public Health*, 11, 1012337. <https://doi.org/10.3389/fpubh.2023.1012337>
- Turner, M., Scott-Young, C., & Holdsworth, S. (2019). Developing the resilient project professional: Examining the student experience. *International Journal of Managing Projects in Business*, 12(3), 716-729. <https://doi.org/10.1108/IJMPB-01-2018-0001>
- Vautero, J., Taveira, M. do C., Silva, A. D., & Fouad, N. A. (2021). Family Influence on Academic and Life Satisfaction: A Social Cognitive Perspective. *Journal of Career Development*, 48(6), 817–830. <https://doi.org/10.1177/0894845320902270>
- Wagnild, G. M., & Young, H. M. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement*, 1(2), 165–178.
- Waithaka, A. G., Martinelli, A., & Kobia, C. (2019). Impacts of Family Functioning on Family Quality of Life among College Students. *International Journal of Novel Research in Humanity and Social Sciences*, 6(5), 89-99. Retrieved from [www.noveltyjournals.com](http://www.noveltyjournals.com)

- Wang, D., Jiang, Q., Yang, Z., & Choi, J. K. (2021). The longitudinal influences of adverse childhood experiences and positive childhood experiences at family, school, and neighborhood on adolescent depression and anxiety. *Journal of Affective Disorders*, 292, 542–551. <https://doi.org/10.1016/j.jad.2021.05.108>
- Wang, He, C. Z., Yu, Y. M., Qiu, X. H., Yang, X. X., Qiao, Z. X., Sui, H., Zhu, X. Z., & Yang, Y. J. (2014). Associations between impulsivity, aggression, and suicide in Chinese college students. *BMC Public Health*, 14(1), 551–551. <https://doi.org/10.1186/1471-2458-14-551>
- Williams, M.N., Grajales, C.A., & Kurkiewicz, D. (2019). Assumptions of Multiple Regression: Correcting Two Misconceptions.
- Wright, M., Masten, A., & Narayan, A. (2013). Resilience Processes in Development: Four Waves of Research on Positive Adaptation in the Context of Adversity. In *Resilience in Children, Adolescents, and Adults: Translating Research into Practice* (pp. 15–38). Springer. [https://doi.org/10.1007/978-1-4614-3661-4\\_2](https://doi.org/10.1007/978-1-4614-3661-4_2)
- Wyman, P. A., Cowen, E. L., Work, W. C., Raoof, A., Gribble, P. A., Parker, G. R., & Wannon, M. (1992). Interviews with children who experienced major life stress: Family and child attributes that predict resilient outcomes. *Journal of the American Academy of Child & Adolescent Psychiatry*, 31(5), 904–910. <https://doi.org/10.1097/00004583-199209000-00019>
- Yu, Z., Wang, L., Chen, W., Zhang, J., & Bettencourt, A. F. (2022). Positive Childhood Experiences Associate with Adult Flourishing Amidst Adversity: A Cross Sectional Survey Study with a National Sample of Young Adults. *International Journal of Environmental Research and Public Health*, 19(22), 14956. <https://doi.org/10.3390/ijerph192214956>

- Zakeri, H., Jowkar, B., & Razmjooe, M. (2010). Parenting styles and resilience. *Procedia – Social and Behavioral Sciences*, 5, 1067–1070.
- Zarei, S., & Fooladvand, K. (2022). Family functioning and life satisfaction among female university students during COVID-19 outbreak: The mediating role of hope and resilience. *BMC Women's Health*, 22(1), 493. <https://doi.org/10.1186/s12905-022-02103-3>
- Zhang, L., Ma, X., Yu, X., Ye, M., Li, N., Lu, S., & Wang, J. (2021). Childhood Trauma and Psychological Distress: A Serial Mediation Model among Chinese Adolescents. *International Journal of Environmental Research and Public Health*, 18(13), 6808. <https://doi.org/10.3390/ijerph18136808>
- Zivin, K., Eisenberg, D., Gollust, S. E., & Golberstein, E. (2009). Persistence of mental health problems and needs in a college student population. *Journal of Affective Disorders*, 117(3), 180-185.

## **APPENDICES**

**Appendix I-** Ethics Approval Letter

**Appendix II-** Dissertation Workbook

**Appendix III-** Supervision Record Sheet

**Appendix IV-** Participant Information Sheet

**Appendix V-** Participant Consent Form

**Appendix VI-** Participant Debrief Sheet

**Appendix VII-** Supervision Learning Contract

**Appendix VIII-** Evidence of Data Collection

## Appendix I- Ethics Approval Letter



03 Mar 2023

Dear Elif Sena

**Principal Investigator: Elif Sena Dedeoglu**

**Research ethics application number: ETH2223-4309**

**Project Title: The Role of Family Functioning and Positive Childhood Experiences on University Students' Psychological Resilience and Life Satisfaction**

**Risk Level: Yellow (Medium)**

**Confirmation that conditions from the ethics committee have been met**

Thank you for submitting the changes requested by the ethics committee.

I have reviewed your changes and **confirm all the conditions have been met**, meaning that you can now start your research.

Please also ensure that you comply with the general conditions on your conditional approval letter from the ethics committee.

If you have any queries, please do not hesitate to contact me.

Yours sincerely,

Debora Antoniotti De Vasconcelos E Sa

ARU Chelmsford, Bishop Hall Lane, Chelmsford, CM1 1SQ 01245 493 131

ARU Cambridge, East Road, Cambridge, CB1 1PT 01245 493 131

**Appendix II- Dissertation Workbook**

# Psychology Dissertation

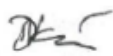
**Department: Psychology, Module Code: MOD002540, Level: 7****Appendix VI: Abbreviated Dissertation Workbook****DISSERTATION WORKBOOK***(please adapt trimester dates for your specific enrolment)*

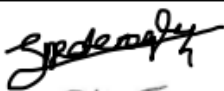
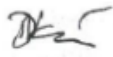
The dissertation workbook should be used to keep a record of your meetings with your supervisor and to agree on actions to be undertaken between meetings. It should be included as an appendix with your dissertation when you submit it.

We recommend that you use the following table to write an outline plan of the activities you will undertake during your dissertation:

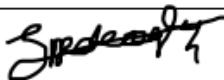
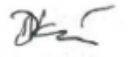
|                      |                                                                                                            |
|----------------------|------------------------------------------------------------------------------------------------------------|
| Meeting 1- Meeting 2 | Looking the literature and doing background research for a potential dissertation topic                    |
| Meeting 2- Meeting 3 | Preparing a research summary. Clarifying the aims and importance of the study, presenting with literature. |
| Meeting 3- Meeting 4 | Ethics Application- Preparing all the related documents for the Ethics Application.                        |
| Meeting 4-Meeting 5  | Reviewing comments for my Ethics Application                                                               |
| Meeting 5-Meeting 6  | Data Collection                                                                                            |
| Meeting 6-Meeting 7  | Working on writing up the                                                                                  |
| Meeting 7-Meeting 8  | Working on writing up the project                                                                          |

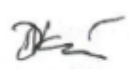
## Appendix III- Supervision Record Sheet

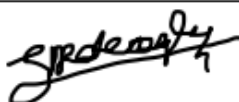
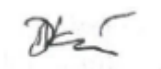
| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 1</b>                                                                                                                                           |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Date of meeting: 5 <sup>th</sup> October 2022                                                                                                                                                                                             |                 |
| <i>Activities undertaken before the meeting:</i><br><br><i>Checking the list of supervisors and potential dissertation topics list.</i><br><i>Looking the literature and doing background research for a potential dissertation topic</i> |                 |
| <i>Agenda for the meeting:</i><br><br><i>Discussing the potential dissertation topic.</i>                                                                                                                                                 |                 |
| <i>Agreed actions for the next meeting:</i><br><br><i>No actions because it is before allocation.</i>                                                                                                                                     |                 |
| <i>Date and time of next meeting:</i><br><br>n/a                                                                                                                                                                                          |                 |
| Student signature:<br>                                                                                                                                 | Date: 5.10.2022 |
| Supervisor signature:<br>                                                                                                                              | Date: 5.10.2022 |

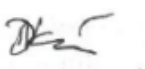
| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 2</b>                                                                  |                 |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Date of meeting: 2 <sup>nd</sup> November 2022                                                                                                                   |                 |
| <i>Activities undertaken before the meeting:</i><br><i>Doing background research for potential dissertation topic</i>                                            |                 |
| <i>Agenda for the meeting:</i><br><i>Discussing the topic and signing the learning contract.</i>                                                                 |                 |
| <i>Agreed actions for the next meeting:</i><br><i>Preparing a research summary. Clarifying the aims and importance of the study, presenting with literature.</i> |                 |
| Date and time of next meeting:                                                                                                                                   |                 |
| Student signature:                                                            | Date: 2.11.2022 |
| Supervisor signature:                                                         | Date: 2.11.2022 |

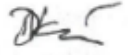
| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 3</b>                                                       |                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Date of meeting: 4 <sup>th</sup> January 2023                                                                                                         |                 |
| <i>Activities undertaken before the meeting:</i><br><br><i>Working on the research summary and the questionnaires that will be used in the study.</i> |                 |
| <i>Agenda for the meeting:</i><br><br><i>Discussing the questionnaires, looking over the research summary.</i>                                        |                 |
| <i>Agreed actions for next meeting:</i><br><br><i>Applying Ethics</i>                                                                                 |                 |
| <i>Date and time of next meeting:</i><br>n/a                                                                                                          |                 |
| Student signature:                                                 | Date: 4.01.2023 |
| Supervisor signature:                                              | Date: 4.01.2023 |

| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 4</b>                                                                                        |                                                                                     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Date of meeting: 2 <sup>nd</sup> March 2023                                                                                                                                            |                                                                                     |
| <i>Activities undertaken before the meeting:</i><br><br><i>Preparing all the related documents for the Ethics Application. Applied for Ethics and receive comments from the panel.</i> |                                                                                     |
| <i>Agenda for the meeting:</i><br><br><i>Reviewing the panel's comments.</i>                                                                                                           |                                                                                     |
| <i>Agreed actions for next meeting:</i><br><br><i>Making little changes and sending my application again.</i>                                                                          |                                                                                     |
| <i>Date and time of next meeting:</i><br><br>n/a                                                                                                                                       |                                                                                     |
| Student signature:                                                                                                                                                                     |  |
| Supervisor signature:                                                                                                                                                                  |  |
| Date:                                                                                                                                                                                  | 2.03.2023                                                                           |
| Date:                                                                                                                                                                                  | 2.03.2023                                                                           |

| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 5</b>                                                          |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Date of meeting: 19 <sup>th</sup> July 2023                                                                                                              |                  |
| <i>Activities undertaken before the meeting:</i><br><br><i>Preparing the online external study on Gorilla, starting participant recruitment process.</i> |                  |
| <i>Agenda for the meeting:</i><br><br><i>I asked questions about the recruitment process.</i>                                                            |                  |
| <i>Agreed actions for the next meeting:</i><br><br><i>Working on method and introduction</i>                                                             |                  |
| <i>Date and time of next meeting:</i><br><br>n/a                                                                                                         |                  |
| Student signature:<br><br>                                            | Date: 19.06.2023 |
| Supervisor signature:<br><br>                                         | Date: 19.06.2023 |

| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 6</b>           |                  |
|-----------------------------------------------------------------------------------------------------------|------------------|
| Date of meeting: 13 <sup>th</sup> July 2023                                                               |                  |
| <i>Activities undertaken before the meeting:</i><br><br><i>Writing up my project</i>                      |                  |
| <i>Agenda for the meeting:</i><br><br><i>Quick meeting for questions</i>                                  |                  |
| <i>Agreed actions for the next meeting:</i><br><br><i>Continuing to write my project</i>                  |                  |
| <i>Date and time of next meeting:</i><br><br>25 <sup>th</sup> July 2023                                   |                  |
| Student signature:     | Date: 13.07.2023 |
| Supervisor signature:  | Date: 13.07.2023 |

|                                                                                                           |                  |
|-----------------------------------------------------------------------------------------------------------|------------------|
| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 7</b>           |                  |
| Date of meeting: 25 <sup>th</sup> July 2023                                                               |                  |
| <i>Activities undertaken before the meeting:</i><br><br><i>Working on introduction and methods</i>        |                  |
| <i>Agenda for the meeting:</i><br><br><i>Discussing general points.</i>                                   |                  |
| <i>Agreed actions for the next meeting:</i><br><br><i>Focusing on completing rest of the study</i>        |                  |
| <i>Date and time of next meeting:</i><br><br><i>n/a</i>                                                   |                  |
| Student signature:     | Date: 25.07.2023 |
| Supervisor signature:  | Date: 25.07.2023 |

| <b>Supervision Record Sheet</b><br><b>(to be printed out and filled in)</b><br><b>Meeting 8</b>                                              |                  |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Date of meeting: 16 <sup>th</sup> August 2023                                                                                                |                  |
| <i>Activities undertaken before the meeting:</i><br><br><i>Working on writing up my project</i>                                              |                  |
| <i>Agenda for the meeting:</i><br><br><i>We reviewed the comments for the introduction and methods, little discussion about the analysis</i> |                  |
| <i>Agreed actions for the next meeting:</i>                                                                                                  |                  |
| <i>Date and time of next meeting:</i><br><br>n/a                                                                                             |                  |
| Student signature:                                        | Date: 16.08.2023 |
| Supervisor signature:                                     | Date: 16.08.2023 |

## Appendix IV- Participant Information Sheet

### 2. Participant information sheet

Date: 13.03.2023

#### Section A: The Research Project

1. **Title of project: The Role of Family Functioning and Positive Childhood Experiences on University Students' Psychological Resilience and Life Satisfaction**
2. **Purpose of study**  
This study aims to investigate the role of perceived family functioning and positive childhood experiences on university students' psychological resilience and life satisfaction. Since many university students live apart from their families, this study will also focus on whether there is a significant difference between university students who live with their families and those who do not live in terms of psychological resilience and satisfaction with life.
3. **Who is the researcher?**  
My name is Elif Sena Dedeoglu and this research is part of my Postgraduate degree at Anglia Ruskin University. My supervisor is Dr Debora Antoniotti de Vasconcelos e Sa and my supervisor's email is debora.sa@aru.ac.uk
4. **Why have I been asked to participate?**  
You have been invited to take part in this research because you are at least 18 years old, attending university in United Kingdom and can read English.
5. **How many people will be asked to participate?**  
I am planning to recruit approximately 85-90 participants.
6. **Do I have to take part?**  
You can refuse to take part without giving a reason.
7. **Has the study got ethical approval?**  
The study has got ethical approval from the School Research Ethics Panel (SREP) at Anglia Ruskin University.
8. **Source of funding for the research, if applicable**  
This research is not funded.
9. **What will happen to the results of the study?**  
My research will be written up for my undergraduate dissertation and there is always the possibility for publication in a peer-reviewed journal.
10. **Contact for further information**  
esd113@student.aru.ac.uk

## Section B: Your Participation in the Research Project

### 1. What will I be asked to do?

Participants will be asked to provide some demographics, including age, whether they currently live with their families. After consenting and debriefing participants; students will be invited to answer questions such as "Planning family activities is difficult because we misunderstand each other" for family functioning, "It does not take me long to recover from a stressful event" for psychological resilience, "Had at least two non-parent adults who took a genuine interest in me" for positive childhood experiences and "In most ways my life is close to my ideal" for life satisfaction by indicating their agreement with using the scales. This online study will take approximately 30 minutes to complete.

### 2. I will be asking you for the following information:

| Special Category Data               |                       |                                     |                             |
|-------------------------------------|-----------------------|-------------------------------------|-----------------------------|
| Personal Data                       |                       | Sensitive Personal data             |                             |
| <input type="checkbox"/>            | Name/Contact details  | <input type="checkbox"/>            | Image (photo or video)      |
| <input checked="" type="checkbox"/> | Age                   | <input checked="" type="checkbox"/> | Experiences                 |
| <input type="checkbox"/>            | Address/location data | <input checked="" type="checkbox"/> | Living Arrangements         |
| <input type="checkbox"/>            | Employment & Earnings | <input type="checkbox"/>            | [Other]                     |
| <input type="checkbox"/>            | ID Numbers (e.g. NHS) | <input type="checkbox"/>            | [Other]                     |
| <input type="checkbox"/>            | Online identifier     | <input type="checkbox"/>            | [Other]                     |
| <input type="checkbox"/>            |                       | <input type="checkbox"/>            | Racial/Ethnicity data       |
|                                     |                       | <input type="checkbox"/>            | Political/Religious beliefs |
|                                     |                       | <input type="checkbox"/>            | Trade Union membership      |
|                                     |                       | <input type="checkbox"/>            | Genetic/Biometric data      |
|                                     |                       | <input type="checkbox"/>            | Health                      |
|                                     |                       | <input type="checkbox"/>            | Sex life/orientation data   |

### 3. What will happen to my data?

Our general privacy notice explaining our use of your personal data for research purposes is available here:

<https://www.aru.ac.uk/privacy-and-cookies/research-participants>

Please visit this link for information about how long we keep your data, how we keep your data secure, how you can exercise your rights over your data, and make a complaint over our use of your data.

For online studies, see the following

Gorilla: <https://gorilla.sc/privacy>

Your data will be anonymous

I will work with personal data to meet the research objectives, but I will use only the minimum amount.

The processing of any personal data will comply with the UK law, and where participants are in European Economic Area (EEA) countries, this will be viewed as equivalent law to their own. The EEA includes EU member states and also Iceland, Liechtenstein and Norway.

Data will be securely held.

I will share your data with my supervisor in anonymised format

Qualtrics Privacy Policy can be found here: <https://www.qualtrics.com/privacy-statement/> and the data will be held by the survey provider.

Anonymised data may be made available in an open access format if published.

4. **Will I be reimbursed travel expenses?**  
No travel expenses will be reimbursed.
5. **Will I receive any payment to take part in the research?**  
Psychology students at Anglia Ruskin University will be offered 0.5 credits to take part in the research.
6. **Are there any possible disadvantages or risks to taking part?**  
There will be no risk involved in participating in this study, beyond that experienced in day-to-day life. All standard health and safety regulations will be adhered to, and a risk assessment will be completed prior to testing. There are no special precautions that you need to take before, during or after taking part in the study. Agreement to participate in this research does not compromise your legal rights should something go wrong.
7. **What are the likely benefits of taking part?**  
The study will not have any direct benefits to participants. The main benefit is to be educational.
8. **Can I withdraw from the study at any time, and how do I do this?**  
For online study: If you decide to take part in this study and wish to withdraw, you are free to do so without prejudice, by closing the browser.  
  
You do not have to answer any questionnaire or interview questions that you do not wish to.
9. **Can I withdraw my data from the study?**  
  
The information I collected from you was anonymous. This means that I won't be able to remove your data, because I won't know which belongs to you.
10. **Are any special precautions I must take before, during or after taking part in the study?**  
There are no special precautions you must take before during or after taking part in the study.
11. **Summary of research findings**  
You will be provided with a debriefing note at the end of the study.
12. **Contact details for complaints**  
If you have any complaints about the study please contact the Chair of the Faculty Research Ethics Panel (FREP), by email at [fse-ethics@anglia.ac.uk](mailto:fse-ethics@anglia.ac.uk) .  
Otherwise, according to Anglia Ruskin University's complaints procedure, you can email: [complaints@aru.ac.uk](mailto:complaints@aru.ac.uk)  
Postal address: Office of the Secretary and Clerk, Anglia Ruskin University, Bishop Hall Lane, Chelmsford, Essex, CM1 1SQ.

PARTICIPANTS SHOULD BE GIVEN A COPY OF THIS TO KEEP,  
TOGETHER WITH A COPY OF THE CONSENT FORM.

## Appendix- Participant Consent Form



### Participant Consent Form for Online Research

**Date:** 13.03.2023

**Title of the project:** The Role of Family Functioning and Positive Childhood Experiences on University Students' Psychological Resilience and Life Satisfaction

**Today's date:** 13.03.2023

**Main investigator and contact details:** Elif Sena Dedeoglu, esd113@student.aru.ac.uk

**Members of the research team:** Dr Debora Antoniotti de Vasconcelos e Sa, debora.sa@aru.ac.uk

1. I agree to take part in the above research. I have read the Participant Information Sheet (13.03.2023, V 1.8) for the study. I understand what my role will be in this research, and all my questions have been answered to my satisfaction.
2. I understand I can withdraw from the study at any point without prejudice by closing the browser or leaving the meeting.
3. I understand that I cannot withdraw my data from the research as my data are anonymous.
4. I understand what information will be collected from me for the study
5. For the purposes of the Data Protection Act (2018), if this project requires me to produce personal data, I have read and understood how Anglia Ruskin University will process it.
6. I understand what will happen to the data collected from me for the research.
7. I have been told about any disadvantages or risks regarding me taking part
8. I have been informed how my data will be processed, how long it will be kept and when it will be destroyed.
9. Upon request I will be emailed a copy of this form and the Participant Information Sheet (13.03.2023, V 1.8)

Please tick here if you agree with the above, or please close this window to exit from the study if you do not agree

☐

Updated 05.11.2021  
V 1.8

Updated 13.03.2023.  
V 1.8

## Appendix V- Participant Debrief Sheet

### Participant Debrief Sheet

**Date:** 13.03.2023

**Title of the project:** The Role of Family Functioning and Positive Childhood Experiences on University Students' Psychological Resilience and Satisfaction with Life

Thank you for participating in this study. It is looking at the role of family functioning and positive childhood experiences on university students' psychological resilience and life satisfaction. Since many university students live apart from their families, this study aims to investigate whether there is a significant difference between university students who live with their families and those who do not live in terms of psychological resilience and satisfaction with life. This study aims to answer the following research questions: i) what is the role of family functioning on the psychological resilience and life satisfaction of university students? ii) what is the role of positive childhood experiences on university students' psychological resilience and life satisfaction? iii) is there a significant difference between students who live with their parents at the university and those who do not live with their parents regarding the effect of family functioning and positive childhood experiences on students' psychological resilience and life satisfaction? The research hypotheses are i) university students who perceive high family functioning are expected to have a higher level of psychological resilience and satisfaction with life ii) university students who report more positive childhood experiences are expected to have higher levels of psychological resilience and satisfaction with life iii) it is expected to be a significant difference in terms of psychological resilience and life satisfaction between university students who live with their families and those who do not live with their families.

If you have any concerns about physical health and wellbeing, you can contact with on-campus services below.

For Counselling and Mental Health Support:

Email: [wellbeing@aru.ac.uk](mailto:wellbeing@aru.ac.uk)  
Cambridge and Peterborough: 01223 698276  
Chelmsford: 01245 684271

For physical health:

The Medical Centre

Mumford 101  
Anglia Ruskin University  
East Road  
Cambridge  
CB1 1PT  
Telephone: 01223320660  
Email: [capccg.arumedicalcentre@nhs.net](mailto:capccg.arumedicalcentre@nhs.net)

Thank you once again for your time in completing this study. Please contact me if you have any further questions about the research. My e-mail address is [esd113@student.aru.ac.uk](mailto:esd113@student.aru.ac.uk) and my supervisor's email is [debora.sa@aru.ac.uk](mailto:debora.sa@aru.ac.uk)

Please remember you are not able to withdraw your data following completion of this study as your data is anonymous.

## Appendix VII- Supervision Learning Contract

### DISSERTATION SUPERVISION LEARNING CONTRACT

Both students and their allocated supervisors must sign this contract. Supervision cannot progress until this has taken place. A signed contract needs to be included with student dissertations when submitted.

#### The dissertation student:

- should come to supervision meetings with an agenda or list of topics to be discussed.
- is responsible for the development of their research dissertation, including identifying, reading and reviewing relevant literature.
- is responsible for the design and day to day running of the dissertation.
- is responsible for (a) deciding on an appropriate strategy to analyse their data, (b) carrying out their data analysis and (c) interpreting the data/ results.
- is responsible for the write up of the report.
- is responsible for their research being conducted in a professional manner.
- Is responsible for ensuring that their research complies with all ethical, data protection and safety issues in a timely manner.
- is responsible for the development of all materials for use in their research (programming, assaying, etc.).
- must be fully trained on all equipment use to the satisfaction\* of the technicians, laboratory manager, or equipment manager before using it;
- shall use the laboratories and equipment in a professional manner, ensuring that all laboratories are kept clean and tidy;
- is responsible for attending relevant scheduled workshops for the acquisition of any skills and/or techniques that they require in a timely manner.
- should make provision to store all data, informed consent forms and questionnaires for at least six months after completion of the dissertation and make this available to the Department of Psychology if required.
- is responsible for immediately raising any issue(s) of concern relating to the dissertation and/or supervision with their supervisor. Failing successful resolution of these issue(s), the student should discuss these with the Module Leader(s).
- will give the supervisor at least 10 working days to read through a draft version of the dissertation.

#### The dissertation supervisor:

- will be available to meet with the student not less than 20 times over the course of the psychology dissertation.
- and not usually more than 30 times. The meetings will usually be a maximum of 30 minutes each, totalling 15 hours.
- give advice during the development, implementation and analysis of your research idea.

- will provide detailed feedback on one section of the dissertation or provide general feedback on the dissertation and usually more than 15 substantive comments in total. The supervisor can only read through a section of the dissertation once.
- in order to provide feedback the draft dissertation must be submitted to the supervisor by no less than 4 working weeks before your dissertation deadline.
- will provide guidance on the ethical nature of the research.
- will not be expected to proof read through the dissertation
- is responsible for ensuring that all students receive appropriate guidance regarding safety issues relevant to their research.
- is responsible for giving guidance on developing materials for the students research (e.g., programming, assaying, etc.).
- will provide assistance as required in the analysis of data collected from such specialist equipment, tests, and programmes\*\*.

**Both student and supervisor agree to:**

- Attend all scheduled meetings.

**The technicians:**

- will arrange the appropriate training for all the equipment and organise the administration appropriate assessed observations;
- will book out the equipment and sign it back in;
- will manage the research laboratories, ensuring that they are used efficiently and fairly;
- will provide guidance in the programming of experiments using specialist software\*\*\*.

**Comments or additional points:**

**Student Name:** Elif Sena Dedeoglu

**Signature:** 

**Supervisor Name:** Debora V. Sa

**Signature:** 

**Date:** 2nd November 2022

\*This will involve passing appropriate assessed observation for use of the EEG.

\*\* Specialist equipment includes but is not limited to the eye-tracker; the EEG; the tDCS; the PNI robot; Cattell's Culture Fair and other questionnaires.

\*\*\* Guidance can take the form of training through scheduled workshops and/or individual one-to-one support.

Technicians are not responsible for programming individual students' paradigms.

Appendix VIII- Examples for Evidence of Data Collection

Correlation Matrix

| Correlation Matrix |                | PCESUM     | SWLSUM     | BRSCORE | FADSCORE |
|--------------------|----------------|------------|------------|---------|----------|
| PCESUM             | Spearman's rho | —          |            |         |          |
|                    | p-value        | —          |            |         |          |
| SWLSUM             | Spearman's rho | 0.430 ***  | —          |         |          |
|                    | p-value        | <.001      | —          |         |          |
| BRSCORE            | Spearman's rho | 0.040      | −0.134     | —       |          |
|                    | p-value        | 0.705      | 0.208      | —       |          |
| FADSCORE           | Spearman's rho | −0.533 *** | −0.443 *** | 0.120   | —        |
|                    | p-value        | <.001      | <.001      | 0.261   | —        |

Note. \* p < .05, \*\* p < .01, \*\*\* p < .001

Plot

