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A novel exploration of the effect of parental divorce early in life on stress-coping ability, resilience and mental health in university students

Vpliv razveze staršev na sposobnost spopadanja s stresom, odpornost in duševno zdravje pri univerzitetnih študentih

Abstract

Parental divorce has been found to negatively affect children if appropriate support, attention and care are not invariably provided. Interestingly, increased resilience and stress-coping abilities have been found in children with divorced parents when encountering adverse events post-divorce. Starting university life represents a significant life change, which can cause stress and affects academic performance. To determine whether experiencing divorce before the age of 18 has an effect on mental health and wellbeing in university students, this novel study explores the resilience, stress-coping ability, personality, self-esteem and empathy, between two groups of students: those who did and those who did not experience parental divorce early in life. 102 undergraduate and postgraduate students completed the Brief Resilience Scale, Perceived Stress Scale, Rosenberg Self-Esteem Scale, Empathy-Quotient Cambridge Scale, and the Big Five Inventory-60. The results revealed no significant differences between respondents with married or divorced parents, suggesting that the experience of divorce does not impact on self-esteem, resilience and stress coping abilities. The results further indicated that the wellbeing of female and male participants is affected differently by divorce. Consequently adapted support has to be provided

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to children, depending on their gender.

Keywords: parental divorce, student resilience, wellbeing, stress, mental health

Povzetek

Razveza staršev lahko negativno vpliva na otroke, če ni zagotovljena ustrezna mera podpore, pozornosti in nege. Močna vez med otrokom in staršem lahko pripomore k vzpostavljanju zdravih mehanizmov za obvladovanje teh negativnih izkušenj. Raziskave kažejo, da otroci razvezanih staršev kažejo višjo stopnjo odpornosti in sposobnosti obvladovanja stresa. Prehod v univerzitetni študij predstavlja pomembno prelomnico v življenju, ki je lahko stresna in vpliva na akademsko storilnost. Predstavljena študija ugotavlja, ali razveza staršev pred dopolnjenim 18. letom vpliva na duševno zdravje, sposobnost spopadanja s stresom, odpornost, samozavest, osebnost in empatijo univerzitetnih študentov. Raziskava vključuje dve skupini udeležencev: tiste z in tiste brez izkušnje razveze staršev v zgodnjem obdobju odraščanja. Dodiplomski in podiplomski študentje (n=102) so opravili vrsto psihometričnih testov: Kratko lestvico odpornosti ("Brief Resilence Scale"), Lestvico za oceno stresa ("Perceived Stress Scale"), Rosenbergovo lestvico samospoštovanja (Rosenberg Self-Esteem Scale), Cambridge lestvico empatičnega kvocienta (Empathy-Quotient Cambridge Scale) in Vprašalnik za merjenje strukture osebnosti po modelu »Velikih pet« (Big Five Inventory-60). Rezultati niso pokazali statistično pomembnih razlik med udeleženci s poročenimi ali razvezanimi starši, kar kaže na to, da izkušnja razveze ne vpliva na samozavest, odpornost in sposobnost obvladovanja stresa pri odraslih. Rezultati nadalje kažejo, da se splošno počutje po razvezi razlikuje glede na spol udeležencev, kar posledično pomeni, da je potrebno podporo otrokom prilagoditi glede na njihov spol.

Ključne besede: ločitev, odpornost študentov, dobro počutje, stres, duševno zdravje

Introduction

The divorce rate worldwide saw a steep increase in the 1980s, reaching a peak in late 1990s of around one in three marriages ending in divorce. Since then this figure has been in gradual decline with divorce rates of opposite sex couples falling by 2018 by almost 10% in the UK (UK Office of National Statistics, 2018). About 40% of American children will experience the breakup of their parents

before turning 18 (Cherlin et al., 1991). British statistics for 2018 reveal that men and women aged between 45-49 have the highest divorce rates (Office of National Statistics, 2018). Parents at this age often have children transitioning into adolescence (Office of National Statistics, 2018). With their ongoing hormonal, behavioral, physical and psychosocial changes, adolescents are placed in an especially vulnerable position when simultaneously experiencing their parent's divorce (Arnett, 1999).

However, the consequences that come with parental divorce, such as increased exposure to 'adult problems', decrease in socio-economic status, potential change of schools and potential change of home, have been found to increase stress-coping abilities (Amato, 2001) and resilience (Booth & Amato, 2001) both in children and adults that experienced divorce in their early years. Furthermore, these vulnerabilities are amplified depending on personality (McIntyre, Heron, McIntyre & Burton, 2003), gender (McCrae & Terracciano, 2005), self-esteem (SE) (Zeigler-Hill, Besser, Myers, Southard, Malkin, 2012) and empathy-quotient (EQ) (Calvi, Kennison, Byrd-Craven & Grant, 2011). Ample research has explored the resilience and stress-coping abilities with cross-cultural child samples, in the time directly after divorce (McLanahan, 1999; Wallerstein & Lewis, 2004; Daatland, 2007; Chung & Emery, 2010).

However, there is limited research available to inform the investigation on students that experienced parental divorce before the age of 18, especially regarding their long-term coping-mechanisms post-divorce (Bruskas & Tessin, 2013). One of the non-clinical groups with limited data on divorce experience and coping abilities are students. For universities, student wellbeing, resilience and stress coping abilities are key concerns as they can impact on academic performance and compromise mental health, due to being away from home and having to adapt to a new social environment (Durand-Bush, McNeill, Harding & Dobransky, 2015). The following literature review will explore the relationships between parental divorce, resilience and stress coping abilities with a brief reference to the type of divorce.

Parental relationship status and resilience

Resilience, defined as the maintenance of competent functioning, despite an inferring emotionality (Garmezy, 1991), reflects one's ability to maintain an equilibrium between adversities experienced in the past (Bonanno, 2004), while sustaining a positive and wholesome lifestyle in the present (Patterson, 2002). Some research indicates that individuals with divorced parents are more likely to experience decreased educational motivation, more difficulty

finding employment, lower wages (Kelly & Emery, 2003) and increased risk of developing mental health issues (Zill & Schoenborn, 1990). Other research indicates that children with newly-divorced parents experience increased resilience in the face of other adversities (Emery & Forehand, 1994). Additionally, 80% of young adults with divorced parents are able to achieve the same results as young adults with married parents, in terms of attaining economic independence, completing further education, and commencing a fulfilling career-path (Hetherington & Kelly, 2002). Despite the limited research focused on determining the extent of resilience in young adults, several investigations argue similar levels of resilience in adults who have or have not experienced parental divorce (Zill, Morrison & Coiro, 1993; Furstenberg & Kiernan, 2001; Amato, 2001). Proto, Sgroi & Oswald (2011) find no difference in the well-being of young adults with married or divorced parents.

These findings indicate that the experience of divorce does not pose a threat to balanced, proactive and healthy development. Moreover, resilience present in adults with divorced parents reduces the risk of subsequent mental health problems (Schaan & Vögele, 2016). These findings are interesting as well-adjusted and resilient adults still report unhappy memories and emotional pain from their parent's divorce (Laumann-Billings & Emery, 2000). Evidence indicates that children (especially female children) repress internal suffering from emotions brought about by their parent's dysfunctional marriage (D'Arcy & Driedger, 1994) that emerge in adulthood, notably, in a romantic context (Kelly & Wallerstein, 1976). However, Laumann-Billings & Emery (2000) and Chung & Emery (2010) also report that children who do reveal emotional suffering from parental divorce, also have increased resilience, likely developed as a coping strategy to deal with their ongoing anguish. Masten (2001) further notes that resilience is common in children growing up in dysfunctional conditions where violence, high-conflict households or post-divorce parental neglect is prevalent (Kelly & Wallerstein, 1976). As such, the extent of adversity witnessed predicts the degree of resilience (Booth & Amato, 2001).

Resilience can also develop from a deep and meaningful relationship with one's parents (Chung & Lee, 2007; Eldar-Avidan et al., 2009). Although maintaining nurturing, healthy and wholesome relationships with family members is already precarious under the pressures of divorce, child-parent bonds may grow stronger out of fear of losing touch with one's child (Kelly & Emery, 2003). Weiss (1979) observed that single parents are more likely to share their post-divorce problems with their children in an attempt to solidify a child-parent bond. However, children and adolescents reported feeling burdened when parents confided in them about their post-marital problems (Kelly & Wallerstein, 1976).

Nevertheless, this new post-divorce trust increased the child and adolescent's resilience due to the solidification of the relationship with their parent (Eldar--Avidan et al., 2009). One consequence of this, however, is that children may become conflicted by loyalty complexes towards their parents, where closeness to one parent increases, while decreasing with the other (Buchanan, Maccoby & Dornbusch, 1991). The deterioration of a relationship between a parent and child post-divorce is correlated with decreased resilience in adulthood (Booth & Amato, 1994), where children often reduce contact with their non-custodial parent as a coping mechanism for conflicted loyalty (Kalmijn, 2013). This reduction in contact can result in a lessening of parental support in later life, limiting their child's ability to thrive in any given environment due to lacking the financial support or resources often provided by parents in their adulthood (Silverstein, Conroy, Wang, Giarrusso, Bengston, 2002).

Parental relationship status and stress-coping ability

One's ability to cope with stress rises with increased exposure to stressors throughout life (Marsh, Clinkinbeard & Thomas, 2007). An individual's sense of coherence (SOC) is a term coined by Antonovsky (1993), which explains one's ability to utilize personal resources to cope more effectively with one's own stress. SOC develops under adverse events in childhood and increases into adulthood. Thus, an individual whose parents have divorced in childhood may have assembled past experiences, memories and coping-mechanisms which may be employed to deal with high-stress situations in the future. With increased exposure to post-divorce 'adult problems' in childhood and adolescence, both maturity and stress-coping ability is increased (Weiss, 1979).

However, divorce often results in attachment issues in children (Parker, Tupling & Brown, 1979), where the degeneration of familial relationships was found to decrease stress-coping abilities (Honkinen, Aromaa & Suominen, 2009; Raudino, Fergusson & Horwood, 2013; Ohtaki, Ohi, Suzuki, Usami, Sasahara & Matsuzaki, 2016), and where the onset of new romantic relationships was found to be a significant stressor in adult individuals with past experiences of dysfunctional marriages (Kelly & Wallerstein, 1976). In a study of 131 children and adolescents of divorced parents, Kelly & Wallerstein (1976) found that females displayed higher anxiety levels than males when entering new relationships in young adulthood, due to repressed emotions following parental divorce. These repressed emotions are characterised by fears of experiencing the troubles of their parents' marriages, anticipating the same results in their own relationships. The importance of strong child-parent bonds is underlined

in much research, highlighting secure relationships as crucial for sustaining effective stress-coping abilities and maintaining healthy relationships (Ingram, Overby & Fortier, 2001; Wark, Kruczek & Boley, 2003).

Hetherington (1979) found that the time immediately after a parent's divorce is highly stressful for the child, in that they often have little to no preparation for the events following the divorce. Divorce can be the cause of numerous stress - inducing and unpredictable circumstances, where a child's adjustment is required (Barnes, 1999).

Gender differences in stress-coping abilities indicate that male children show greater difficulty in adjusting to divorce compared to female children. Male children experience increased anger and violent behaviour resulting from stress and the lack of control over their parents' situation (Hetherington, 1999). A father-son relationship is often more deeply-rooted than a father-daughter relationship (Kelly & Emery, 2003). It is often the father that has a diminished role in his children's lives after the divorce. (Rodgers, 1996; Kalmijn, 2015). This new experience of the limited contact that often occurs between a father and son post-divorce is met with stress, confusion and internalized anger by the child (Hetherington & Stanley-Hagan, 1999). Chung & Lee (2007) conducted a study on stress- coping strategies of 121 adolescents of divorced parents and 130 adolescents of married parents. They discovered that adolescents with divorced parents were more likely to internalize their problems, something which was found to be a major stress inducer. Yee (2002) conducted a similar study comparing 174 adolescents with married parents with 174 adolescents with divorced parents, finding high levels of internalized anger in those with divorced parents. These findings suggest that efficient stress-coping abilities involve voicing concerns, fears and stressors related to parental divorce, something that males seem to struggle with (Amato, 2001). This suggests that coaching and psychotherapy may help in coping with stress by increasing the awareness of their emotions and how to communicate them (Amato, 2001; Chung & Emery, 2010).

Through providing a comforting atmosphere, safe home environment, emotional support, encouraging academic performance and social interactions parents can increase their child's ability to adjust and enable them to develop and thrive at the same level as children in married, low-conflict families (Heatherington & Stanley-Hagan, 1999; Kelly & Emery, 2003; Verrocchio, Ambrosini & Fulcheri, 2013). With research supporting increased maternal bonds resulting in increased stress-coping abilities in children and adults (Chung & Lee, 2007; Eldar-Avidan et al., 2009), perhaps the negative consequences of divorce in sons can be mitigated with increased attention, care and comforting behaviour

from the mother.

Type of divorce, resilience and stress-coping ability

Dissolution of a marriage is a phenomenon that has only become more widely accepted within the last half century (Cherlin, 2009; McDermott, Fowler & Christakis, 2013). With the increase in liberalism across Europe and parts of the US, the sacredness of 'holy matrimony' has diminished (Heron, Hoyert, Murphy, Xu, Kochanek & Tejada-Vera, 2009), along with the negative stereotypes of divorce. The experience of divorce will differ depending on whether the decision to divorce is mutual, the underlying reason for divorce (adultery, unreasonable behaviour, lack of attraction, growing apart etc.) and feelings of hatred or anger towards the other partner. With limited research on different types of divorce the assumption is that a perceived 'good' or bilateral divorce (where both partners want a divorce with no negative feelings towards one another), and a 'neutral' divorce (a low-conflict divorce) will have little to no effect on an individual, compared to a 'bad' or unilateral divorce (following a high-conflict marriage which is characterized by hurt, anger and hatred towards the other partner) (Gruber, 2004). With these current gaps in literature regarding divorce type, the current study also aims to explore the relationship between the type of divorce and its effect on stress-coping ability and resilience.

Parental relationship status, personality, empathy-quotient and self-esteem

Self-esteem (SE) is defined as an individual's subjective evaluation of his or her own worth as a person (Orth & Robinson, 2014). Although much research has focused on gender differences in SE (Kling, Hyde, Showers & Buswell, 1999; Orth, Trzesniewski & Robins, 2010; Zeigler- Hill et al., 2012; Orth & Robins, 2014; Bleidorn et al., 2016), there is only limited data on differences in SE between young adults who experienced parental divorce in childhood, and those who did not. Most of the existing studies focus on parental bonding acting as a mediator for increased SE, which also enables increased social functioning under pressure (Levy-Shiff, 2001). A study of 69 Hong Kong families with children and adolescents who had recently experienced parental divorce, showed that increased parent-child relationships post-divorce mediated increased SE (Lau, 2008), which is consistent with findings in the US and the UK (Emery, 1999; Kelly & Emery, 2003).

Even though gender differences in personality (Feingold, 1994; McCrae,

2002; McCrae & Terracciano, 2005), the influence of culture and wealth (Costa, Terracciano, & McCrae, 2001) and social context (Robinson, 2009) have been consistently identified , there is limited research on personality in young adults who have experienced parental divorce in childhood. The effect of parental divorce in university students on adjustment, depending on participant personality characteristics seems to be related to increased social responsibility (conscientiousness), better adjustment (thus resilience) and less distress (higher stress-coping ability) (McIntyre et al., 2003).

There is also a gap in research exploring EQ (a measurement of empathetic ability) (Allison, Baron-Cohen, Wheelwright, Stone & Muncer, 2011) in young adults with divorced and married parents. Although females tend to score higher than males on EQ (Calvi et al., 2011; Wakabayashi & Kawashima, 2015), no research has directly investigated the effect of parental relationship status on the EQ of their offspring.

The research aim of this study is to determine the effect of early life parental divorce on resilience and stress-coping ability in young adults. The study also explores the role of personality, EQ and SE on stress coping ability and resilience. Finally, the effect of divorce itself, whether it was unilateral or "bad", neutral, or bilateral or "good" is also explored. 3 hypotheses have been formulated. Hypothesis 1 predicts that there is a difference in resilience and stress-coping ability between adults who have and have not experienced divorce before turning 18. Hypothesis 2 predicts that there is a difference in personality, EQ and SE between adults who have and have not experienced divorce before turning 18. Hypothesis 3 predicts that there is a relationship between the type of divorce, stress-coping ability and resilience.

Methods

Participants

In total, 102 participants were recruited using the Heriot-Watt University in Edinburgh participant collection database named StReP, which at the time consisted of over 400 potential participants. The inclusion criteria used to select the participants for the study were to be aged over 18 and in part or full time university education. There were 72 female participants, 38 of whom had experienced parental divorce before turning 18, and 30 male participants, 14 of whom had experienced parental divorce before turning 18. The mean age

of participants who experienced parental divorce was 24.6 years (M=24.67, SD=8.50), mean age range of participants whose parents did not divorce was 23.3 (M=22.3, SD=4.79), with overall participant age of 23.5 years (M=23.52, SD=7.02). 25 participants were part time students in part-time employment and 77 were full or part-time students.

Design

A between-subjects research design was used, with an online questionnaire available to participants. Quantitative data was based on questionnaires with 1 to 5 point response Likert scales (Likert, 1932; Matell & Jacoby, 1971). The variables measured included self-esteem, using the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), empathy-quotient, using the Empathy-Quotient Cambridge Scale (EQ) (Baron-Cohen &Wheelwright, 2004), personality, using the Big Five Inventory Scale (BFI-60) (John, 1990), perceived stress, using the Perceived Stress Scale (PSS) (Cohen, Kamarck & Mermelsetein, 1983) and resilience, using the Brief Resilience Scale (BRS) (Smith, Dalen, Wiggins, Tootley, Christopher & Bernard, 2008). However, in the case of the BFI-60, although all participants completed the 60-question questionnaire, some issues emerged when scoring the data. Therefore, the BFI-10 (the 10- question version of the BFI-60) was scored instead. The participants were also asked to decide on the type of parental divorce they experienced

Materials

Participants needed access to the Internet and a device that would allow the connection, such as a laptop, tablet or smart phone. Further, the following questionnaires were used:

The Brief Resilience Scale (BRS)

The BRS is a self-report measure used to quantify one's resilience (Smith et al., 2008). The BRS consists of 6 self-report questions which assess one's ability to recover or 'bounce back' from a challenging or stressful time or situation in one's life. The scale has predominantly been used by individuals experiencing a typical development (Smith et al., 2008). Participants rated their replies to the 6 questions on a 5 point Likert scale with the options "strongly disagree", "disagree", "neither agree nor disagree", "agree" or "strongly agree". The internal consistency of the BRS has been reported as good, showing high test-retest

reliability of .69 for one month and .62 for three months (Smith et al., 2008). Furthermore, the BRS is the only scale that specifically assesses resilience in terms of stress recovery (Boyle, Saklofske & Matthews, 2015). A score between 1.00-2.99 signifies low resilience, 3.00-4.30 signifies normal resilience, and 4.31-6.00 signifies high resilience (Smith et al., 2008).

The Perceived Stress Scale (PSS)

The PSS is the most widely used self-report measurement for measuring one's perception of stress (Cohen et al., 1983). The PSS consists of 10 questions which determine the degree to which an individual perceives stress in their own lives. The questions were based on how overwhelmed an individual feels in relation to their lives, as well as aspects of unpredictability and uncontrollability in their lives (Cohen et al., 1983). The PSS was originally designed for use in a community sample, where participants have at least a high school education (Cohen et al., 1983). The questions are easy to understand, and do not relate specifically to any subpopulations. Participants are to rate their replies to the 10 questions on a 5-point Likert scale with the options "never", "almost never", "sometimes", "fairly often" or "often". The test-retest reliability, as well as construct validity and for PSS subscales are found to be good (Chiu, Ohi, Suzuki, Usami, Sasahara & Matsuzaki, 2016). Scores between 0-13 signify low perceived stress, scores of 14-26 signify moderate perceived stress, and scores at 27 or above signify high perceived stress (Cohen et al., 1983).

The Rosenberg Self-Esteem Scale (RSES)

The RSES is a 10-item international self-report scale which measures SE and self-worth (Rosenberg, 1965), with the RSES having been translated into Norwegian, French, Dutch and Spanish, among other languages (Rosenberg, 1965). The questions determine how one sees oneself, and questions one's perception of personal qualities, self-acceptance, self- respect and equality with others. A 4-point Likert scale was used, where the options of "strongly agree", "agree", "disagree", strongly disagree" were available. The RSES presents high internal consistency and test-retest reliability, as well as moderate validity (Rosenberg, 1965; Silber & Tippett, 1965; Shorkey & Whiteman, 1978). Scores below 15 suggest low SE, while scores between 15 and 25 signify a normal amount of SE.

Empathy-Quotient Cambridge Scale (EQ)

Baron-Cohen & Wheelwright's (2004) EQ Scale is a 60-question questionnaire, designed due to the gaps in empathy measurement (Davis, 1980). The EQ can measure empathy levels in clinical and general populations (Kim & Lee, 2010), as well as significant differences between the sexes in participant empathy with women scoring significantly higher than men (Baron-Cohen & Wheelwright, 2004). The EQ has been replicated cross-culturally in Japan, France, and Italy, among other places, showing cross-cultural validity (Allison et al., 2011). The test-retest reliability and validity for the EQ is found to be good (Muncer & Ling, 2006). Participants were to rate their replies on a 5 point Likert scale with the options "strongly disagree", "disagree", "neither agree nor disagree", "agree" or "strongly agree". Scores between 0-32 signified low empathy ability. Scores ranging from 33-52 signified an average empathetic ability. Scores between 53- 63 signified above average ability to empathise while a score between 64-80 signified a very high understanding of other's feelings, and ability to respond appropriately (Baron-Cohen & Wheelwright, 2004).

Big Five Inventory Scale (BFI-10)

The original BFI has 60 questions, and is a questionnaire measuring a respondent's personality, and the characteristics within the personality. The questionnaire covers five main dimensions: Openness, Conscientiousness, Extraversion, Agreeableness and Neuroticism. The BFI-10 also covers these five domains, however making use of only 10 questions. The BFI-10 uses some identical and some similar questions to the BFI-60, where a 5-point Likert scale asks participants to rate their response between "strongly disagree", "disagree", "neither agree nor disagree", "agree" or "strongly agree". Rammstedt & John (2007) found that even though the BFI-10 is much shorter it still predicted 70% of the full-scale variance. The test-retest reliability revealed generalizable scores, with best results revealed for Extraversion, Neuroticism and Conscientiousness. Agreeableness and Openness had lower generalization ability (Rammstedt & John, 2007). In comparison with the BFI-60, the BFI-10 showed excellent discriminant validity and good convergent validity, as well as reliability (Rammstedt & John, 2007). However, with the reduction of questions the external validity decreased by 23% (Rammstedt & John, 2007). A high score in the openness domain relates to being more open to new experiences, while scoring low suggests that an individual prefers routine. A high score in conscientiousness signifies one's organization and self-discipline, whereas a low score indicates one's flexibility and unreliability. Scoring high in extraversion reveals an energetic and outgoing personality, while scoring low leans toward a preference for being alone. A high

agreeableness score reveals a tendency for friendliness and an even temper, while scoring low leans toward a more argumentative personality. A high neuroticism score signifies a vulnerability to stress, and high emotionality while low neuroticism scores portray an individual as calm and emotionally stable.

Procedure

After ethics approval was given by the Heriot-Watt University ethics committee, the study link was posted onto StReP, the Heriot-Watt University participant collection database. The link anonymised the participant and brought them to Qualtrics, where the study questionnaire was assembled and saved. After clicking on the link, they were directed to an informed consent form. If the consent form was not accepted, participants were unable to continue with the online questionnaire, and were redirected to the debrief form, which concluded the study immediately and prevented them from seeing any contents of the questionnaire. All participants accepted the informed consent documentation presented on the screen when first clicking the link to the questionnaire. After participants accepted, they were brought to the questionnaire page, and filled out basic demographic information, as well as all questionnaires, with a total of 153 questions. Participants were aware that they were under no obligation to answer all questions. When the questionnaire was completed, the participants pressed 'submit', which redirected them to a debrief document.

Results

The primary aim of this investigation was to determine the differences in stress--coping ability and resilience between individuals with married and divorced parents. It was also of interest to determine potential differences in personality, EQ and SE between individuals with married and divorced parents. Finally, the participants' own assessment of the type of divorce their parents had (good, neutral or bad) was used to predict stress-coping ability and resilience. Parametric statistics (regression and one-way ANOVA) were conducted on the assumption of homogeneity of variance, normal distribution and adequate sample size. All analyses were carried out using the IBM's statistical software, SPSS 26 for Mac.

Table 1:
Descriptive statistics of participants with divorced and married parents

Demographics	Divorced parents		Married parents	
	Females	*Males*	*Females*	*Males*
N	38	14	34	16
Age (M±SD)	25.47±9.61	22.5±3.73	22.38±5.4	22.37±2.98
Employed	10	3	5	2
Unemployed	2	0	1	2
Students	26	11	28	12
Age during divorce (mode)	3-5 and 6-8	3-5 and 12-14	—	—
Good divorce	3	1	—	—
Neutral divorce	13	7	—	—
Bad divorce	22	6	—	—

M±SD: Mean±Standard Deviation

Resilience and Stress-coping Ability

Hypothesis 1 was tested using a two one-way between subjects' ANOVAs. These tests were conducted to compare the effect of experiencing or not experiencing parental divorce in childhood, on resilience and stress-coping ability. The assumption of equal variance was not violated. There was no significant difference on resilience between participants who had experienced parental divorce, and those who had not, $(F(1,100) = 1.74, p = 0.18, \eta_p^2 = 0.01)$ or stress-coping ability $(F(1,100) = 0.103, p = 0.74, \eta_p^2 = 0.001)$.. A follow-up Bonferroni test for resilience revealed that individuals with divorced parents scored higher on the BRS (3.40±0.12) than individuals with married parents (3.17±0.12), signifying a tendency for individuals with divorced parents to have increased resilience. A post-hoc Bonferroni test for stress-coping abilities, revealed that individuals with divorced parents scored higher on the PSS (20.75±6.55) than individuals with married parents (20.30±7.55), signifying a tendency for individuals with divorced parents to have increased perceived stress and lower stress-coping ability. Conclusively, however, having married or divorced parents did not produce significantly differing stress-coping abilities.

Differences in personality, empathy-quotient and self-esteem

Hypothesis 2 was tested using one-way between subjects' ANOVAs. This statistical test was conducted between respondents who had experienced parental divorce in childhood, and those who had not, and their personality scores, EQ scores and SE scores, to determine potential differences. There was no significant difference in the two groups' EQ *($F(1,100)= 1.44$, $p= 0.23$, $\eta p^2=0.014$), SE ($F(1,100)= 2.41$, $p= 0.12$, $\eta p^2 =0.024$)*, or in any of the five personality dimensions of the BFI-10. Table 2 presents the outputs of the one-way ANOVAs for the personality dimensions.

Table 2:
ANOVA output equations for the five BFI-10 personality dimensions

BFI-10 personality dimensions	One-way ANOVA output equations
Extraversion	$F(1,100)= 0.007$, $p= 0.93$, $\eta p^2 =0.000$
Agreeableness	$F(1,100)= 0.169$, $p= 0.68$, $\eta p^2 =0.002$
Conscientiousness	$F(1,100)= 0.026$, $p= 0.87$, $\eta p^2 =0.000$
Neuroticism	$F(1,100)= 0.395$, $p= 0.53$, $\eta p^2 =0.004$
Openness	$F(1,100)= 3.08$, $p= 0.082$, $\eta p^2 =0.030$

Effect of good, neutral or bad divorce on stress-coping ability and resilience

Hypothesis 3 was tested using a multivariate linear regression. This test was conducted between type of divorce, stress-coping ability and resilience to determine any relationship between the variables. Type of divorce was not a significant predictor of stress-coping ability *($F(1,100)= 0.085$, $p= 0.77$)* or resilience *($F(1,100)= 0.518$, $p= 0.47$)*. The direction of the impact on the criterion variable 'type of divorce' was not determinable. The model explains 1.4% of the variance in type of divorce (Adjusted R2 = -0.014), signifying a poorly defined model. Table 3 below presents the unstandardized and standardized regression coefficients for the variables entered into the model. Table 4 presents the means and standard deviations of participant's BRS and PSS scores, depending on perceived parental divorce type. Figures 1 and 2 present the means and standard deviations of participant PSS and BRS scores depending on their perceived type of divorce.

Table 3:
The standardized and unstandardized regression coefficients for the variables entered into the model

Variable	B	SE B	β	p
PSS	0.005	0.019	0.029	0.77
BRS	0.109	0.152	0.072	0.47

Table 4:
Means and standard deviations (M±SD) of stress-coping ability and resilience scores depending on participants' perception of parental divorce type

Questionnaire	Type of divorce		
	Good	*Neutral*	*Bad*
PSS	19.75±3.20	21.20±6.29	20.57±7.19
BRS	3.95±0.72	3.47±0.78	3.26±0.96

Figure 1:
Mean and standard deviation of participant PSS score depending on perceived divorce type

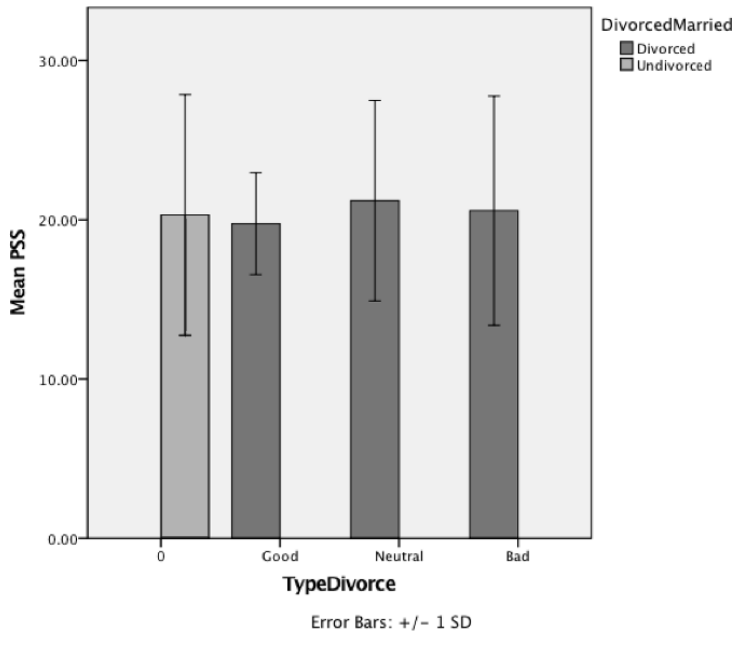
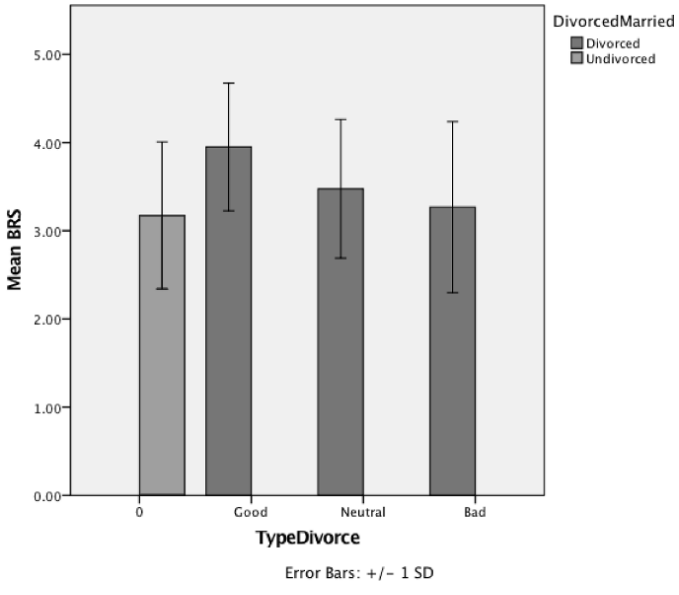


Figure 2:
Mean and standard deviation of participant BRS score depending on perceived divorce type



Additional analyses were conducted to attain a broader overview of the respondents' results, depending on gender (Table 5).

Table 5:
Means and standard deviations (M±SD) of participants' questionnaire results

Questionnaires	Divorced parents		Married parents	
	Male	*Female*	*Male*	*Female*
PSS	20.50±6.82	20.84±6.50	23.31±7.29	18.88±7.35
BRS	3.29±0.90	3.40±0.89	3.33 ± 0.92	3.10 ± 0.79
RSES	12.85±3.05	15.23±3.59	12.37±2.60	14.17±2.76
EQ	24.25±9.41	42.94±12.86	34.06±7.27	35.52±9.50
BFI-10 personality dimensions				
Extraversion	6.50±2.26	6.16±1.88	6.13±1.89	6.35±1.95
Agreeableness	4.64±1.69	4.71±1.52	5.00±1.59	4.74±1.60
Conscientiousness	6.57±2.47	5.21±1.71	5.69±2.12	5.62±1.85
Neuroticism	7.21±1.47	6.63±1.28	6.88±1.14	6.53±0.92
Openness	7.00±2.03	7.45±2.15	8.00±2.03	7.97±1.38

Discussion

The data from the student sample included in this study indicate that experiencing divorce in childhood does not affect stress coping abilities, resilience, self-esteem or empathy and that there is no relationship between divorce type and stress-coping ability and resilience. Consequently, all experimental hypotheses were rejected. Given the lack of research on how parental divorce impacts on participant psychological wellbeing and mental health, this study represents a novel exploratory perspective on the issue with implications for both further research and psychology-based interventions offered to students, like counselling, coaching and psychotherapy.

Hypothesis 1 predicted that there would be a difference in resilience scores between the participants who have and have not experienced divorce as a child. The hypothesis was rejected as there was no significant difference between the two participant groups. The results are in line with the previous research with children from divorced families showing that their resilience is either equal to, or higher than in children who have not experienced parental divorce (Zill et al., 1993; Furstenberg & Kiernan, 2001; Amato, 2000; Amato, 2001). Resilience is also amplified by factors such as strong family bonds (Eldar-Avidan et al., 2009), and the experience of serious adversities such as child abuse, maltreatment or the experience of extreme stress in childhood (D'Arcy & Driedger, 1994; Kelly & Wallerstein, 1976; Booth & Amato, 2001). The data indicates that participants with divorced parents score slightly higher on the BRS (3.34±0.89) compared to those with married parents (3.25±0.85), cohering with the findings of the previous studies. More precisely, it was females with divorced parents who scored higher (3.40±0.89) than males with divorced parents (3.29±0.90) on the BRS. Contrary to these findings, Rodriguez-Rey, Alonso-Tapia, & Hernansaiz-Garrido (2016), Stratta, et al., (2013) and Smith et al., (2008) found that women scored lower on measures of resilience, than males. These contradicting findings require further exploration with a bigger sample size and controlled co-variables, to support or dispute the findings in this study. However, these findings are relevant for informing the design and offering of practical interventions like coaching for young adults to increase their resilience after experiencing parental divorce. Increased levels of resilience in people with divorced parents stems from their desire for independence, feelings of connectedness, and wishes to adequately function within a given environment (Thomas & Woodside, 2011; Eggen & Kauchak, 2010) or a desire for personal growth, which is often central to coaching psychology (Weiten & Lloyd, 2006).

Hypothesis 1 also predicted that there would be a difference in stress-coping ability between the participants who have and have not experienced divorce as a child. There was no significant difference in perceived stress scores between the two participant groups. Previous studies with children and adolescents argue that post-divorce stress-coping abilities depend on factors such as past experiences of stressors (Marsh et al., 2007), child-parent bond pre- and post--divorce (Ingram et al., 2001) and the child's ability to voice concerns, questions, fears and anger related to changes in their lives (Chung & Lee, 2007). The lack of research with adult participants limits the discussion on the results from this study, however findings based on children and adolescents show that stress-coping ability increases with increased stress exposure (Marsh et al., 2007). Females with married parents had the lowest perceived stress score (18.88±7.35), and thus higher stress-coping abilities, compared to females and males with divorced parents and males with married parents (who tended to score highest on the PSS (23.31±6.50), implying lower stress-coping ability). It must be noted that the current participant sample predominantly consisted of female students with married parents. As such, it is possible that the above tendencies emerged due to extraneous variables, for example being exposed to and used to increased stress related to university studies and examinations. Despite the need to replicate the current study with a bigger sample size and more advanced controlled variables, the present findings do trigger further research questions.

Hypothesis 2 predicted a difference in personality, EQ and SE between young adults who have and have not experienced divorce before the age of 18. Again, data analysis revealed no significant difference between personality scores, EQ scores and SE scores between individuals with married and divorced parents. The lack of any significant differences is very much in line with the argument that experiencing divorce in childhood as an isolated experience may not represent a significant enough stressor to alter psychometric structure later on in life. Although inadequate research on EQ, personality and SE in individuals with divorced and married parents limits discussion on the present findings, the study shows that females with divorced parents tend to score higher on EQ, BRS and RSES than males with divorced parents, or females and males with married parents. Even though the differences were not significant, there are some interesting gender related tendencies, which should be further explored (Iimura & Taku, 2017). The current study indicates that females with divorced parents scored significantly higher on the RSES ($p=0.002$) than females with married parents, and males with both married and divorced parents. This contradicts some of the previous research where males have scored higher in

SE than females (Mezulis, Abramson, Hyde & Hankin, 2004; Stringer, Reynolds, Simpson, 2003; Kling et al., 1999), and where female SE decreased with increased adverse experiences (Wang, Korczykowski, Rao, Fan & Pluta, 2007; Weissman & Olfson, 1995). Although data analysis revealed an insignificant difference between EQ in those with married and divorced parents, further analysis revealed a relationship between EQ and gender, where females with divorced parents scored significantly higher on the EQ questionnaire ($p<0.001$) than females with married parents, or males with married or divorced parents. Similar results were also found in Wakabayashi & Kawashima (2015) where females scored higher on EQ than males.

The final hypothesis predicted that there would be a relationship between the type of divorce, stress-coping ability and resilience. Regressions conducted between divorce type and stress-coping ability, and divorce type and resilience, both revealed no significant relationship between the three types of perceived divorce experience (good or bilateral, neutral, bad or unilateral). Thus, hypothesis 3 was rejected. Divorce type in relation to mental health and wellbeing later on in life has been explored infrequently (Ahrons, 1999; Gruber, 2004; Amato, Kane & James, 2011), so there are limitations with contextualizing the current findings. Despite non-significant results, the mean scores of individuals who reported experiencing a "good" divorce were lowest on the PSS (19.75±3.20) and the highest on the BRS (3.95±0.72), indicating a high stress-coping ability and increased resilience. This may be linked to past findings where children who experienced a "good" divorce, with strong post-divorce family bonds and good interpersonal relationships with parents had the lowest number of behavioural problems and strongest reported child-parent relationship (Amato et al., 2011; Chung & Lee, 2007; Eldar-Avidan et al., 2009) with increased resilience (Whiteside & Becker, 2000). The current study suggests a decreasing trend in resilience scores from good (3.95±0.72) to neutral (3.47±0.78), to bad (3.26±0.96). Although these results are in line with some previous findings (Amato et al., 2011), further research is needed to establish the role of perceived 'good', 'neutral' and 'bad' divorce on stress-coping ability and resilience.

The current study had several limitations which warrant discussion. Firstly, the study consisted of a sample of 102 participants, with unbalanced distribution of gender and age. Although the number of participants with married parents (N=50) and divorced parents (N=52), are relatively similar, the unequal gender distribution may result in unreliable findings. Secondly, it must be highlighted that the questionnaires used in the study were lengthy, at 153 questions. It is possible that participants felt the task became tedious, thus rushing through the questions. Further, cultural differences in respondents

may be reflected in the findings, where cultural values and traditions may highlight or downplay potential negative effects of parental divorce (Toth & Kemmelmeier, 2009). By further exploring these aspects, research could address cultural perceptions of divorce, stress-coping ability and resilience. Finally, participants were differentiated by parental divorce before they turned 18, or whether they had not experienced divorce at all. The present study, however, did not explore the effect of parental divorce later on in life, after the participant turned 18, which may be a research opportunity for further studies. One of the strengths of the present study is the application of full versions of the psychometric tests, assuming increased validity and reliability (Baer & Blais, 2012). Even though the scores for BFI-60 were adapted to reflect the BFI-10, evidence supports the discriminant and convergent validity as well as the reliability of the BFI-10 (Rammstedt & John, 2007). Finally, this study is the first to investigate the impact of the perceived experience of parental divorce as good, neutral or bad on stress-coping ability and resilience, with findings that suggest a starting point for further development.

One of the outcomes is a clear need for more research on the effects of divorce on the resilience of those students who experienced parental divorce as children, which may have substantial implications for their mental health and student wellbeing provision in higher education. Further research in this area requires a larger sample size, with control for different covariates such as attachment, socio-economic status, gender, ethnicity and education. In addition, both quantitative and qualitative data must be collected. The use of qualitative data will allow for in- depth information on participants' experience and support provision.

Conclusions

The current study shows no significant differences between participants with married and divorced parents in resilience, stress-coping ability, personality, EQ and SE scores. This suggests the possibility that divorce- related stress in childhood does not have a significant impact on the development of individual differences and coping mechanisms, if adequate care and support is provided to the child before, during and after divorce. Increased resilience stems from feelings of control over one's own life, despite experiencing undesirable events in the past that were beyond an individual's control (Thomas & Woodside, 2011). This perceived control may emerge from close relationships between family members, which increase both stress-coping ability and resilience (Whiteside & Becker, 2000). Results suggest that experiencing divorce may positively affect SE scores in females, which is particularly amplified by strong parental bonds, and a 'good' divorce. Consequently, when young adults experience family closeness and support their wellbeing increases (Eldar-Avidan et al., 2009). Finally, the study has identified gaps in research and provided recommendations for further research, which will inevitably contribute to the advancement of effective preventative care and inform psychology-based interventions, like coaching, counselling and psychotherapy, to support individuals struggling with the experience of parental divorce.

References

Ahrons, C. (1999). *The Good Divorce.* Harper Collins

Allison, C., Baron-Cohen, S., Wheelwright, S. J., Stone, M. H., & Muncer, M. J. (2011). Psychometric analysis of the Empathy Quotient (EQ) scale. *Personality and Individual Differences, 51*(7), 829-835.

Amato, P. R. (2001). Children of divorce in the 1990s: An update of the Amato and Keith (1991) meta-analysis. *Journal of Family Psychology, 15*(3), 355-370.

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family, 62*, 1269-1287.

Amato, P. R. & Gilbreth, K. (1999). Non-resident fathers and children's well-being: A meta- analysis. *Journal of Marriage and the Family 61*, 557-573.

Antonovsky, A. (1993). The structure and properties of the sense of coherence scale. *Social Science & Medicine, 36*(6), 725-733. doi:10.1016/0277-9536(93)90033-z

Bandura, A. (1977). *Social learning theory.* Englewood Cliffs, NJ: Pretence Hall.

Baer, L., & Blais, M. A. (2012). *Handbook of clinical rating scales and assessment in psychiatry and mental health.* New York: Humana.

Baron-Cohen, S. & Wheelwright, S. (2004). The Empathy Quotient: An Investigation Of Adults With Asperger Syndrome Or High Functioning Autism, And Normal Sex Differences. *Autism Dev Disord, 34*(2), 163-75.

Barnes, G. G. (1999). Divorce Transitions: Identifying Risk And Promoting Resilience For Children And Their Parental Relationships. *Journal of Marital and Family Therapy, 25*(4), 425-441.

Bleidorn, W., Denissen, J. J., Gebauer, J. E., Arslan, R. C., Rentfrow, P. J. (2016). Supplemental Material for Age and Gender Differences in Self-Esteem—A Cross-Cultural Window. *Journal of Personality and Social Psychology, 11*(3). doi:10.1037/pspp0000078.supp

Bonanno, G. A. (2004). Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events? *American Psychologist, 59*(1), 20-28. doi:10.1037/0003-066x.59.1.20

Booth, A. & Amato, P. R. (1994). Parental marital quality, parental divorce and relations with parents. *Journal of Marriage and Family, 56*(1), 21-34.

Booth, A., & Amato, P. R. (2001). Parental Predivorce Relations and Offspring Post-divorce Well-Being. *Journal of Marriage and Family, 63*(1), 197-212. doi:10.1111/j.1741- 3737.2001.00197.x

Bornstein, M. H., Suwalsky, J. T., Putnick, D. L., Gini, M., Venuti, P., Falco, S. D., Galperín, C. Z. (2010). Developmental continuity and stability of emotional availability in the family: Two ages and two genders in child-mother dyads from two regions in three countries. *International Journal of Behavioral Development, 34*(5), 385-397. doi:10.1177/0165025409339080

Boyle, G. J., Saklofske, D. H., & Matthews, G. (2015). *Measures of personality and social psychological constructs.* London: Academic Press.

Bruskas, D. & Tessin, D. H. (2013) Adverse childhood experiences and psychosocial well- being of women who were in foster care as children. *The Permanente Journal, 17*(3), 131- 141.

Buchanan, C. M., Maccoby, E. E. & Dornbusch, S. M. (1991). Caught between parents: Adolescents' experience in divorced homes. *Child Development, 62*, 1008-1029.

Calvi, J. L., Kennison, S. M., Byrd-Craven, J. & Grant, D. (2011). Relationship between Self- Report and Behavioral Measures of Empathy. *Relationship between Self-Report and Behavioral Measures of Empathy, 1*, 1-94

Carlson, M. J. (2006). Family structure, father involvement and adolescent behavioral outcomes. *Journal of Marriage and Family, 68*, 137-154.

Cherlin, A. J. (2009). The Origins of the Ambivalent Acceptance of Divorce. *Journal of Marriage and Family, 71*(2), 226-229. doi:10.1111/j.1741-3737.2009.00593.x

Cherlin, A. J., Furstenberg, F. F., Jr., Chase-Landale, P., Kiernan, K. E., Robins, P. K., Morrison, D. R. & Teitler, J. O. (1991). Longitudinal Studies of Effects of Divorce on Children in Great Britain and the United States. *Science, 252*(5011), 1386-1389. doi: DOI: 10.1126/science.2047851

Chiu, Y., Lu, F. J., Lin, J., Nien, C., Hsu, Y., & Liu, H. (2016). Psychometric properties of the perceived stress scale (PSS): measurement invariance between athletes and non-athletes and construct validity. *National Library of Medicine, Institutes of Health, 4*, 2790.

Chung, Y., & Emery, R. (2010). Early Adolescents and Divorce in South Korea: Risk, Resilience and Pain. *Journal of Comparative Family, 41*, 5th ser., 855-870.

Cohen, M. (2002). Reference Corner: For Better or For Worse: Divorce Reconsidered. *PsycEXTRA Dataset, 54*, 50. doi:10.1037/e318132004-008

Cohen, S., Kamarck, T. & Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24*, 386-396.

Costa, P. T., Terracciano, A. & McCrae, R. R. (2001). Gender differences in personality traits across cultures: Robust and surprising findings. *Journal of Personality and Social Psychology, 81*, 322–331. http://dx.doi.org/10.1037/0022-3514.81.2.322.

Daatland, S. O. (2007). Marital history and intergenerational solidarity: The impact of divorce and unmarried cohabitation. *Journal of Social Issues, 63*, 809–825.

D'Arcy, J. & Driedger, S. D. (1994). Can kids cope? *Cover Photograph, 107*(25), 38.

Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology, 10*, 85.

Durand-Bush, N.; McNeill, K.; Harding, M.; Dobransky, J. (2015). Investigating stress, psychological well-being, mental health functioning, and self-regulation capacity among university undergraduate students: Is this population optimally functioning? Can. J. Couns. *Psychother, 49*, 253–274.

Eggen, P. & Kauchak, D. (2010). Educational psychology: Windows on classrooms (8th ed.). Columbus, OH: Merrill.

Eldar-Avidan, D., Haj-Yahia, M. M. & Greenbaum, C. W. (2009). Divorce is a part of my life. Resilience, Survival, and Vulnerability: Young Adults' Perception of the Implications of Parental Divorce. *Journal of Marital and Family Therapy, 35*(1), 30-46. doi:10.1111/j.1752- 0606.2008.00094.x

Emery, R. E., & Forehand, R. (1994). Parental divorce and children's wellbeing: A focus on resilience. *Stress, risk and resilience in children and adolescents, 101*, 393-403.

Erikson, E. H. (1950). Childhood and society. New York: W. W. Norton.

Feingold, A. (1994). Gender differences in effects of physical attractiveness on romantic attraction: A comparison across five research paradigms. *Journal of Personality and Social Psychology, 59*, 981–993. http://dx.doi.org/10.1037/0022- 3514.59.5.981.

Furstenberg, F. F. & Kiernan, K. E. (2001). Delayed Parental Divorce: How Much Do Children Benefit? *Journal of Marriage and Family, 63*(2), 446-457. doi:10.1111/j.1741- 3737.2001.00446.x

Garmezy, N. (1991). Resilience in Childrens Adaptation to Negative Life Events and Stressed Environments. *Pediatric Annals, 20*(9), 459-466. doi:10.3928/0090-4481-19910901- 05

Gruber, J. (2004). Is making divorce easier bad for children? The long-run implications of unilateral divorce. *Journal of Labor Economics, 22*, 799-833.

Harper, S. E. & Fine, M. A. (2006). The effects of involved non-residential father' distress, parenting behaviors, inter-parental conflict, and the quality of father-child relationships on children's well-being. *Fathering, 4*, 286-311.

Hetherington, E. M. (1979). Divorce: A child's perspective. *American Psychologist, 34*, 851– 858.

Hetherington, E. M. (1999). Family Functioning and the Adjustment of Adolescent Siblings in Diverse Types of Families. *Monographs of the Society for Research in Child Development, 64*(4), 1-25. doi:10.1111/1540-5834.00045

Hetherington, E. M. & Stanley-Hagan, M. (1999). The adjustment of children with divorced parents: a risk and resiliency perspective. J. Child Psychol. *Psychiatry 40*, 129–140. doi: 10.1111/1469-7610.00427

Heron, M., Hoyert, D. L., Murphy, S. L., Xu, J., Kochanek, K. D. & Tejada-Vera, B. (2009). Deaths: Final Data for 2006. *National Vital Statistics Reports, 57*(14):1–134.

Honkinen, P. L., Aromaa, M. & Suominen, S. (2009). Early childhood psychological problems predict a poor sense of coherence in adolescents: A 15-year follow-up study. *Journal of Health Psychology, 14*, 587–600.

Iimura, S., & Taku, K. (2017). Gender Differences in Relationship Between Resilience and Big Five Personality Traits in Japanese Adolescents. *Psychological Reports, 1*(1), 1-12. doi:10.1177/0033294117741654

Ingram, R. E., Overby, T. & Fortier, M. (2001). Individual differences in dysfunctional automatic thinking and parental bonding: specificity of maternal care. *Pers. Individ. Diff. 30*, 401-412. doi: 10.1016/S0191-8869(00)00032-5

John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. *Handbook of personality: Theory and research*, 66–100.

John, O. P. & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality theory and research* (pp. 102–138). New York: Guilford Press.

Kalmijn, M. (2015). How Childhood Circumstances Moderate the Long-Term Impact of Divorce on Father-Child Relationships. *Journal of Marriage and Family, 77*(4), 921-938. doi:10.1111/jomf.12202

Kalmijn, M. (2013). Long-Term Effects of Divorce on Parent-Child Relationships: Within- Family Comparisons of Fathers and Mothers. *European Sociological Review, 29*(5), 888-898. doi:10.1093/esr/jcs066

Kapinus, C. A. (2005). The effect of parental marital quality on young adults' attitude toward divorce. *Sociological Perspectives, 48*, 319–335.

Kelly, J. B. & Emery, R. E. (2003). Children's Adjustment Following Divorce: Risk and Resilience Perspectives. *Family Relations, 52*(4), 352-362. doi:10.1111/j.1741- 3729.2003.00352.x

Kelly, J. B. & Wallerstein, J. S. (1976). The effects of parental divorce: Experiences of the child in early latency. *American Journal of Orthopsychiatry, 46*(1), 20-32. doi:10.1111/j.1939-0025.1976.tb01224.x

Kim, J. & Lee, S. J. (2010). Reliability and validity of the Korean version of the empathy quotient scale. *Psychiatry Investigation*, 7(1), 24–30.

Kling, K. C., Hyde, J. S., Showers, C. J. & Buswell, B. N. (1999) Gender differences in self- esteem: A meta-analysis. *Psychological Bulletin 125*(4): 470–500.

Laumann-Billings, L. & Emery, R. E. (2000). Distress among young adults from divorced families. *Journal of Family Psychology, 14*, 4th ser., 671-687.

Levy-Shiff, R. (2001). Psychological adjustment of adoptees in adulthood: family environment and adoption-related correlates. *Int. J. Behav. Dev. 25*, 97–104. doi: 10.1080/01650250042000131

Likert, R. (1932). A Technique for the Measurement of Attitudes. *Archives of Psychology, 140*, 1–55.

Marsh, S. C., Clinkinbeard, S. S. & Thomas, R. M. (2007). Risk and protective factors predictive of sense of coherence during adolescence. *Journal of Health Psychology, 12*, 281– 284.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist, 56*, 227–238.

Matell, M. S. & Jacoby, J. (1971). Is There an Optimal Number of Alternatives for Likert Scale Items? Study I: Reliability and Validity. *Educational and Psychological Measurement, 31*(3), 657-674. doi:10.1177/001316447103100307

McCrae, R. R. & Terracciano, A. (2005). Universal features of personality traits from the observer's perspective: Data from 50 cultures. *Journal of Personality and Social Psychology, 88*, 547–561. http://dx.doi.org/10.1037/0022-3514.88.3.547.

McDermott, R., Fowler, J. H., & Christakis, N. A. (2013). Breaking Up Is Hard to Do, Unless Everyone Else Is Doing It Too: Social Network Effects on Divorce in a Longitudinal Sample. *Social Forces, 92*(2), 491-519. doi:10.1093/sf/sot096

McIntyre, A., Heron, R. L., McIntyre, M. D., Burton, S. J., & Engler, J. N. (2003). College students from families of divorce: keys to their resilience. *Journal of Applied Developmental Psychology, 24*(1), 17-31. doi:10.1016/s0193-3973(03)00022-4

McLanahan, S. S. (1999). Coping with divorce, single parenting, and remarriage: A risk and resiliency perspective. *Father absence and children's welfare*, 117-146.

Mezulis, A. H., Abramson, L. Y., Hyde, J. S. & Hankin, B. L. (2004) Is there an universal positivity bias in attributions? A meta-analytic review of individual, developmental, and cultural differences in the self-serving attributional bias. *Psychological Bulletin 130*(5): 711– 747.

Muncer, S. J. & Ling, J. (2006). Psychometric analysis of the empathy quotient (EQ) scale. *Personality and Individual Differences, 40*(6), 1111-1119.

Office for National Statistics. Divorces in England and Wales: 2017. (2018). Retrieved February 27, 2020, from *https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/livebirths /bulletins/birthsbyparentscharacteristicsinenglandandwales/2016*

Office for National Statistics. Divorces in England and Wales: 2017. (2018). Retrieved February 27, 2020, from *https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/divorce/b ulletins/divorcesinenglandandwales/2016*

Ohtaki, Y., Ohi, Y., Suzuki, S., Usami, K., Sasahara, S., & Matsuzaki, I. (2016). Parental bonding during childhood affects stress-coping ability and stress reaction. *Journal of Health Psychology, 22*(8), 1004-1011. doi:10.1177/1359105315621780

Orth, U., & Robins, R. W. (2014). The Development of Self-Esteem. *Current Directions in Psychological Science, 23*(5), 381-387. doi:10.1177/0963721414547414

Orth, U., Trzesniewski, K. H., & Robins, R. W. (2010). Self-esteem development from young adulthood to old age: A cohort-sequential longitudinal study. *Journal of Personality and Social Psychology, 98*(4), 645-658. doi:10.1037/a0018769

Parker, G., Tupling, H., & Brown, L. B., (1979). A parental bonding instrument. *British Journal of Medical Psychology, 52*(1): 1–10.

Patterson, J. M. (2002). Integrating family resilience and family stress theory. *Journal of Marriage and Family, 64*, 349–360. doi: 10.1177= 1066480708314259

Proto, E., Sgroi, D., & Oswald, A. J. (2011). Are happiness and productivity lower among young people with newly-divorced parents? An experimental and econometric approach. *Experimental Economics, 15*(1), 1-23. doi:10.1007/s10683-011-9285-5

Rammstedt, B. & John, O. P. (2007). Measuring personality in one minute or less: A 10-item short version of the Big Five Inventory in English and German. *Journal of Research in Personality, 41*(1), 203-212. doi:10.1016/j.jrp.2006.02.001

Raudino, A., Fergusson, D. M. & Horwood, L. J. (2013). The quality of parent/child relationships in adolescence is associated with poor adult psychosocial adjustment. *Journal of Adolescence, 36*(2): 331–340.

Robinson, O. C. (2009). On the social malleability of traits: Variability and consistency in Big 5 trait expression across three interpersonal contexts. *Journal of Individual Differences, 30*, 201–208. http://dx.doi.org/10.1027/1614- 0001.30.4.201.

Rodgers, B. (1996). Social and psychological well-being of children from divorced families: Australian research findings. *Australian Psychologist, 31*, 174-182.

Rodriguez-Rey, R., Alonso-Tapia, J. & Hernansaiz-Garrido, H. (2016). Reliability and validity of the Brief Resilience Scale (BRS) Spanish Version. *Psychological Assessment, 28*, 101–110. doi: 10.1037/pas0000191

Rosenberg, M. (1965). Society and the adolescent self-image. Princeton, NJ: Princeton University Press.

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi:10.1037//0003-066x.55.1.68

Schaan, V. K. & Vögele, C. (2016). Resilience and rejection sensitivity mediate long-term outcomes of parental divorce. *European Child & Adolescent Psychiatry, 25*(11), 1267-1269. doi:10.1007/s00787-016-0893-7

Silber, E. & Tippett, J. S. (1965). Self-esteem: Clinical assessment and measurement validation. *Psychological Reports, 16*, 1017-1071.

Silverstein, M., Conroy, S. J., Wang, H., Giarrusso, R. & Bengston, V. L. (2002). Article Navigation Reciprocity in Parent–Child Relations Over the Adult Life Course. *The Journals of Gerontology, 57*(1), b, 3-13.

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*, 194–200. doi: 10.1080/10705500802222972

Stratta, P., Capanna, C., Patriarca, S., de Cataldo, S., Bonanni, R. L., Riccardi, I. & Rossi, A. (2013). Resilience in adolescence: Gender differences two years after the earthquake of L'Aquila. *Personality and Individual Differences, 54*, 327–331. doi: 10.1016/j.paid.2012.09.016

Shorkey, C. T. & Whiteman, V. L. (1978). Correlations between Standard English and Dialectical Spanish Versions of Five Personality Scales. *Psychological Reports, 43*(3).

Stringer, S. J., Reynolds, G. P. & Simpson, F. M. (2003). Collaboration between classroom teachers and a school counselor through literature circles: Building self-esteem. *Journal of Instructional Psychology 30*(1), 69–76.SJ

Thomas, D. A. & Woodside, M. (2011). Resilience in Adult Children of Divorce: A Multiple Case Study. *Marriage & Family Review, 47*(4), 213-234. doi:10.1080/01494929.2011.586300

Toth, K. & Kemmelmeier, M. (2009). Divorce Attitudes Around the World. *Cross-Cultural Research, 43*(3), 280-297. doi:10.1177/106939710933664

Verrocchio, M. C., Ambrosini, A. & Fulcheri, M. (2013). Promotion of mental health in children of parents with a mental disorder. *Ann. Ist Super. Sanit, 49*, 406–411. doi: 10.4415/ann_13_04_15

Wakabayashi, A. & Kawashima, H. (2015). Is empathizing in the E–S theory similar to agreeableness? The relationship between the EQ and SQ and major personality domains. *Personality and Individual Differences, 76*, 88-93.

Wallerstein, J. S., & Lewis, J. M. (2004). The Unexpected Legacy of Divorce: Report of a 25-Year Study. *Psychoanalytic Psychology, 21*(3), 353-370.

Wallerstein, S. J. & Lewis, M. J. (2004). The Unexpected Legacy of Divorce: Report of a 25- Year Study. *Psychoanalytic Psychology, 21*, 353–70.

Wang, J., Korczykowski, M., Rao, H., Fan, Y. & Pluta, J. (2007). Gender difference in neural response to psychological stress. *Social Cognitive Affective Neuroscience, 2*(3): 227–239.

Wark, M. J., Kruczek, T. & Boley, A. (2003). Emotional neglect and family structure: impact on student functioning. *Child Abuse Neglect, 27*, 1033–1043. doi: 10.1016/S0145- 2134(03)00162-5

Weiss, R. S. (1979). Growing up a little faster: The experience of growing up in a single- parent household. *Journal of Social Issues, 35*, 97–111.

Weiser, D. A., Weigel, D. J., Lalasz, C. B., & Evans, W. P. (2015). Family Background and Propensity to Engage in Infidelity. *Journal of Family Issues, 38*(15), 2083-2101. doi:10.1177/0192513x15581660

Weissman, M. M. & Olfson, M. (1995) Depression in women: implications for health care research. *Science, 269*(5225), 799–801.

Weiten, W. & Lloyd, M. A. (2006). Psychology applied to modern life: Adjustment in the 21st century. Belmont, CA: Thomson Wadsworth.

Yee, S. Y. (2002). A study on determinants of psychosocial adjustment in adolescents from divorced families. *Adolescent Studies, 1*, 403-423.

Zeigler-Hill, V., Besser, A., Myers, E. M., Southard, A. C. & Malkin, M. L. (2012). The Status-Signaling Property of Self-Esteem: The Role of Self-Reported Self-Esteem and Perceived Self-Esteem in Personality Judgments. *Journal of Personality, 81*(2), 209-220.

Zill, N. & Schoenborn, C. (1990). Development, Learning and Emotional Problems: Health of Our Nation's Children. *National Centre for Health Statistics, 441*, 2-19.

Zill, N, Morrison, D.R. & Coiro, M. J. (1993). Long-term effects of parental divorce on parent-child relationships, adjustment, and achievement in young adulthood. *Journal of Family Psychology, 7*, 91-103.

Zimrin, H. (1986). A profile of survival. *Child Abuse Neglect, 10*, 339-34.