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**Can major life events explain depressive symptoms?  
Understanding the mediating role of external shame and  
fears of receiving compassion**

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Master's Dissertation in Cognitive-Behavioural Interventions in  
Psychological and Health Disorders supervised by Professor  
Cláudia Ferreira

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Faculty of Psychology and Educational Sciences of the University of Coimbra  
to obtain the Master's degree in Clinical Psychology

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## **Can major life events explain depressive symptoms? Understanding the mediating role of external shame and fears of receiving compassion**

### **Abstract**

*Purpose:* An extensive body of research have showed the impact of major life events on psychological outcomes, namely in depression symptoms. However, the underlying emotional and psychological processes that contribute to this association are still unclear. Hence, the present study aims to explore the relationship between the occurrence of major life events and their appraisals by the individual on depressive symptoms, by examining the mediational role of external shame and fears of receiving compassion in these relationships.

*Methods:* Participants in the current study were 400 (121 males and 279 females) adults, with ages between 18 to 65 years, from the general population. All participants completed self-report measures.

*Results:* Correlation analysis showed significant and positive associations between number of major life events and the positive and negative appraisal of such events, external shame, fears of receiving compassion and depressive symptoms. Path analysis revealed that external shame and fears of receiving compassion fully mediated the effects of the number of life events on depressive symptoms. Furthermore, results showed a direct effect of negative appraisal of major life events on depression symptoms.

*Conclusions:* This study shed light on the emotional and psychological processes that may underlie the relationship between cumulative major life events and depressive symptoms. Specifically, the current study appears to support that the occurrence of major life events can impact on depression symptoms when associated with feelings of shame. Shame feelings in turn were revealed both a direct and indirect effect (through fears of receiving compassion from others) on depressive symptoms.

**Keywords:** Major life events; External shame; Fears of receiving compassion; Depression symptoms

## **Poderão os eventos de vida *major* explicar a sintomatologia depressiva?**

### **Compreendendo o papel mediador da vergonha externa e dos medos de receber compaixão por parte dos outros**

#### **Resumo**

*Objetivo:* A literatura tem vindo a demonstrar o impacto dos eventos de vida *major* na sintomatologia psicológica, nomeadamente nos sintomas depressivos. Contudo, os processos emocionais e psicológicos subjacentes que contribuem para esta associação continuam por esclarecer. Deste modo, o presente estudo tem como objetivo explorar a relação entre a ocorrência de eventos de vida *major* e as avaliações efetuadas pelos indivíduos acerca desses eventos e a sintomatologia depressiva, examinando o papel mediador da vergonha externa e dos medos de receber compaixão por parte dos outros.

*Métodos:* Neste estudo participaram 400 adultos (121 do sexo masculino e 279 do sexo feminino), com idades compreendidas entre os 18 e os 65 anos, pertencentes a população geral. Todos os participantes completaram medidas de autorresposta.

*Resultados:* As análises correlacionais demonstraram associações positivas e significativas entre o número de eventos de vida *major* e as avaliações positivas e negativas acerca destes eventos, a vergonha externa, os medos de receber compaixão por parte dos outros e a sintomatologia depressiva. Os resultados da path analysis revelaram que a os efeitos do número cumulativo dos eventos de vida *major* na sintomatologia depressiva foi totalmente mediado pela vergonha externa e pelos medos de receber a compaixão por parte dos outros. Adicionalmente, os resultados mostraram um efeito direto da avaliação negativa acerca dos eventos de vida *major* nos sintomas depressivos.

*Conclusões:* Este estudo destaca a importância dos processos emocionais e psicológicos que estão subjacentes na relação entre o número cumulativo dos eventos de vida *major* e os sintomas depressivos. Mais especificamente, o presente estudo parece demonstrar que a ocorrência de eventos de vida major possuiu um impacto nos sintomas depressivos quando associada a sentimentos de vergonha. Por sua vez, os sentimentos de vergonha revelaram um efeito direto e indireto (através dos medos de receber a compaixão por parte dos outros), na sintomatologia depressiva.

**Palavras chave:** Eventos de vida *major*; Vergonha Externa; Medos de receber compaixão por parte dos outros; Sintomas depressivos

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**Can major life events explain depressive symptoms? Understanding the mediating  
role of external shame and fears of receiving compassion**

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## **Abstract**

*Purpose:* An extensive body of research have showed the impact of major life events on psychological outcomes, namely in depression symptoms. However, the underlying emotional and psychological processes that contribute to this association are still unclear. Hence, the present study aims to explore the relationship between the occurrence of major life events and their appraisals by the individual on depressive symptoms, by examining the mediational role of external shame and fears of receiving compassion in these relationships.

*Methods:* Participants in the current study were 400 (121 males and 279 females) adults, with ages between 18 to 65 years, from the general population. All participants completed self-report measures.

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*Conclusions:* This study shed light on the emotional and psychological processes that may underlie the relationship between cumulative major life events and depressive symptoms. Specifically, the current study appears to support that the occurrence of major life events can impact on depression symptoms when associated with feelings of shame. Shame feelings in turn were revealed both a direct and indirect effect (through fears of receiving compassion from others) on depressive symptoms.

**Keywords:** Major life events; External shame; Fears of receiving compassion; Depression symptoms

## **1. Introduction**

Life can be difficult, uncertain, and painful (Gilbert 2010b). In fact, life is complex and impermanent, comprising continuous changing events and difficulties that can be distressing (Ciarrochi et al. 2005). A consistent body of research has evidenced that several life events (such as marriage, divorce or separation, having a child, financial or interpersonal problems, a serious disease, or death of a close relative or friend) may have a pervasive impact on perceived quality of life and mental health (Ciarrochi et al. 2005; Jaschek et al. 2016; Pocnet et al. 2016). Since the pioneer work of Brown and Harris (1978) stressful life events were linked with the development and maintenance of psychopathological symptoms. More recently, several studies have been pointing out stressful life events as risk factors associated with current anxiety and depressive symptomatology (Espejo et al. 2011; Jaschek et al. 2016; Phillips et al. 2015; Reiland and Clark 2017). A prospective study (Phillips et al. 2015) suggested that the impact of major life events may persist for five years since their occurrence. Also, empirical data have demonstrated that the relationship between major life events and psychopathology indicators is dependent on the frequency, intensity, and subjective appraisal of these events (Espejo et al. 2011; Sobrinho and Campos 2016). Furthermore, the influence that major life events have on one's adaptation trajectory depends on the characteristics of the life events and the emotional regulation processes used to cope with these events (Hayes et al. 2012; Pocnet et al. 2016). Some people seem to be more resilient towards stressful events than others and it has been suggested that external events may not directly lead to suffering but rather the use of maladaptive psychological processes to deal with those events and the emotions that may arise from them, which can maintain and even amplify human suffering (Hayes et al. 2012).

It may be hypothesized that the occurrence of major life events can lead to feelings of inferiority and shame. For example, the occurrence of events such as being fired or getting divorced may be perceived as something that others may consider as associated to a decrease in social rank and to a lack of positive attributes. The experience of external shame is rooted in social interactions, when the individual perceives that others might see him or her as less attractive, inferior, or inadequate, putting the individual at risk of criticism or rejection (e.g., Gilbert 1998, 2000). External shame can be understood as a defensive strategy as a way to monitor one's social rank and to adjust behaviour to promote acceptance within the social group (e.g., Gilbert 1998, 2000, 2003, 2010a, 2017). Higher levels of external shame are associated with several psychopathology outcomes, such as depression and anxiety (Cheung et al. 2004; Gilbert 2000; Zhang 2018). This finding has been highlighted by a meta-analysis of 108 studies conducted by Kim and colleagues (2011) which suggested that shame has a significant link with depressive symptoms.

There is increasing evidence that compassion can have an effective protective effect against shame feelings (e.g., Gilbert and Procter 2006; Judge et al. 2012) and is associated with both physical and psychological health (Hall et al. 2013; Pinto-Gouveia et al. 2014; Zessin et al. 2015). Compassion can be conceptualized as “a sensitivity to the suffering of self and others, with a deep commitment to try to relieve it” (Dalai Lama 1995). This skill requires several attributes, that are sensitivity, sympathy, care for well-being, non-judgement, distress tolerance and empathy (Gilbert et al. 2017). Consistent evidence has suggested that compassion has multiple mental health benefits, being linked with positive affect, optimism, happiness, wisdom, and psychological flexibility, which can promote resilience to life events (Martin et al. 2011; Neff 2005; Neff and McGehee 2010; Neff and Kirkpatrick et al. 2007; Neff and Rude et al. 2007). In a recent meta-analysis, Inwood

and Ferrari (2018) showed that compassion promotes the ability to tolerate distress, which is particularly important to promote or recover mental health. Also, compassion-based interventions have been shown to reduce levels of self-criticism, shame, submissive behaviour depression, anxiety, stress and fears of compassion (e.g., Gilbert and Procter 2006; Judge et al. 2012; Matos et al. 2017).

Although compassion is protective against psychological distress, some people show resistance and fear of experiencing compassion (Gilbert 2010a; Gilbert et al. 2011). Studies have shown that people with insecure attachments styles are more prone to be afraid of feelings of warmth, caring, safeness, kindness, and compassion (Gilbert 2010a; Gilbert et al. 2011; Joeng et al. 2017). Literature has pointed out that fears of compassion can have different directions: one can present fear of being self-compassionate, fear of giving compassion to others, or fear of receiving compassion from others (Gilbert et al. 2011). A recent study has suggested that the ability to receive compassion and experience affiliative signals from others may be especially important to adaptively deal with adverse situations, such as health problems (Trindade and Ferreira et al. 2018). Fears of receiving compassion from others are strongly linked with self-criticism, alexithymia, and shame (Gilbert et al. 2011, 2012, 2014; Hermanto et al. 2016; Oliveira et al. 2017), and with several mental conditions such as depression, anxiety, stress, and paranoid ideation (Gilbert et al. 2011, 2012, 2014; Hermanto et al. 2016; Matos and Duarte et al. 2017).

### *Aims*

Considering the presented literature, it may be hypothesized that the cumulative number of major life events and their subjective appraisal by the individual may lead to a perception that the occurrence of these events may translate one's lack of positive attributes and a decrease in social rank, as well as to feelings of inferiority or inadequacy (i.e., external shame), which are known to be associated with depression symptoms

(Matos et al. 2015). Given that feelings of shame have been linked to fear of receiving affiliative signals from others (Oliveira et al. 2017; Trindade and Duarte et al. 2018), we further hypothesize that the relationship between shame and depression symptoms will be mediated by fears of compassion from others. This study aims to analyse whether these variables, shame and fear of receiving compassion from others, mediate the known link between major life events and depression symptomatology.

## **2. Material and Methods**

### **2.1. Participants**

The study's sample was comprised by 400 participants [121 males (30.2%) and 279 females (69.8%)] from the general community population. Participants' age ranged from 18 to 65 years and presented a mean of 30.91 years ( $SD= 11.68$ ). Completed years of education presented a mean of 14.16 ( $SD = 2.86$ ). Regarding the marital status of the participants, the majority (67.5%) were single, while (25.5%) were married, (6.7%) were divorced and (0.3%) were widowers.

### **2.2. Measures**

2.2.1. *Major Life Events Questionnaire* (MLEQ; Cohen et al. 1991; Portuguese adaptation by Trindade and Ferreira 2017). MLEQ is a self-reported questionnaire that comprises 22 items to evaluate the occurrence of specific major life events that occurred in the previous 12 months (e.g., divorce, pregnancy, significant academic success, financial problems). Participants are asked to report, in a dichotomic scale (yes or no), the occurrence or absence of each major life event. Additionally, for each event that occurred, the participant is requested to rate his or her appraisal about the impact that the event had in their lives, using a 3-point scale its positive (1= "Slightly good"; 2= "Moderately good"; 3= "Very good") or negative appraisal (1= "Slightly bad"; 2=

“Moderately bad”; 3= “Very bad”). In this study, three variables were computed: number, positive appraisal and negative appraisal of major life events.

2.2.2. *The Other As Shamer Scale\_2* (OAS\_2; Matos et al. 2015). The OAS\_2 is an 8-item shorter version of the OAS scale (Goss et al. 1994). This self-report scale aims to evaluate external shame, that is, the perception that one is negatively seen or evaluated by others (e.g., “Other people see me as if I am a defective person”). The scale is rated on a 5-point scale (0= “Never”; 4= “Almost always”). The OAS\_2 presents good reliability with an internal consistency of 0.82 (Matos et al. 2015). In the present study the Cronbach’s alpha of the OAS\_2 was 0.93.

2.2.3. *Fears of Compassion Scale* (FCS; Gilbert et al. 2011; Portuguese version by Simões and Pinto-Gouveia 2012). The FCS is a self-report scale that measures fears of compassion in three different directions: for self, for others and from others. In this study, it was only used the fears of compassion from others subscale (FCS\_from\_others), that comprises 13 items concerning fears of receiving care, kindness, soothing, and warmth from others (e.g. “Although other people are good to me, I rarely felt secure in my relationships with others”). Participants were asked to rate the extent to which they agree with each item using a 5-point Likert scale (0= “Do not agree at all” to 4= “Completely agree”). The FCS presents good internal consistency in its original and Portuguese versions. The Cronbach’s alpha for fears of compassion from others was 0.85 in the original study (Gilbert et al. 2011), and, 0.91 in the Portuguese version (Simões and Pinto-Gouveia 2012). In the current study the Cronbach’s alpha for fears of receiving compassion was 0.91.



2.2.4. *Depression Anxiety Stress Scales* (DASS\_21; Lovibond and Lovibond 1995; Portuguese version by Pais-Ribeiro et al. 2004). The DASS\_21 is a self-report scale that comprises 21 items that measure symptoms of depression (Dep), anxiety, and stress, during the previous week. Participants are asked to rate the frequency in which they experienced each symptom using a 4-point Likert scale (0 = “Did not apply to me at all” to 3 = “Applied to me very much or most of the time”). In this study, only the depression subscale was used. The original and the Portuguese versions showed good internal consistencies with the Cronbach’s alpha values of 0.88 and 0.85 for depression, respectively. In the current study the Cronbach’s alpha for depression was 0.90.

### **2.3. Procedures**

The present study is part of a larger research project on the impact major life events have on one’s quality of life and psychopathology levels. This study respected all ethical requirements for research with human beings and was approved by the Ethics Committees of the Faculty of Psychology and Education Sciences of the University of Coimbra. The sample was recruited through online advertisements on social networks (e.g., facebook) using a snowball sampling procedure. Potential participants were informed about the purpose of the study and confidentiality of the collected data. All participants voluntarily agreed to be part of this research and gave their informed consent before completing the self-report questionnaires. Participants completed a battery of self-report measures in a secure online platform (*LimeSurvey*). Inclusion criteria in this study were the following: (a) ages between 18 to 65 years old; (b) Portuguese nationality and being a Portuguese native speaker; (c) having completed the whole research battery.

### **2.3.1. Data analyses**

Descriptive statistics (means and standard deviations) were conducted in order to characterize the sample. Additionally, Pearson correlation analyses were performed to examine the association between major life events (number of events, positive appraisal, and negative appraisal), external shame (OAS\_2), fears of compassion from others (FCS\_from\_others), depressive symptoms (Dep), and age. The magnitudes of the correlation coefficients were analyzed according to Cohen's guidelines (< 0.30 weak; 0.30 – 0.49 moderate; 0.50 – 0.80 strong, with  $p < 0.05$ ; Cohen et al. 2003). Descriptive and correlation analyses were performed using the software IBM SPSS (v.22; SPSS Inc. Chicago. IL).

In addition, a path analysis was performed to test the hypothesised structural relations among the study variables. It was explored whether the link between the occurrence and appraisal of life major events and depressive symptoms would be mediated by external shame and fears of receiving compassion from others, while controlling for the effect of age. To evaluate the regression coefficients significance and fit statistics the maximum-likelihood estimation method was used. The recommended goodness-of-fit indices (Chi-square, Minimum discrepancy divided by its degrees of freedom-CMIN/df, Tucker and Lewis Index-TLI, Comparative Fit Index-CFI, and Root Mean Squared Error of Approximation-RMSEA) were calculated to assess the adequacy and consistency of the model (Hu and Bentler 1999). The Chi-square reveals a good fit when non-significant (Hair et al. 1998), the CMIN/df should be inferior to 3 to be acceptable (Byrne 2016), the TLI and the CFI have desirable values when superior to 0.95 (Hooper et al. 2008), and the RMSEA is desirably inferior to 0.06 (Hu and Bentler 1999). Finally, the significance of the mediation paths was analysed by using the Bootstrap resampling method, using 5000 bootstrap samples and 95% confidence intervals (Kline

2005). The path analysis was performed using the statistical software Amos (Analysis of Momentary Structure. v.22. SPSS Inc. Chicago. IL).

### **3. Results**

#### **3.1. Preliminary data analysis**

The coefficients of skewness (Sk) and kurtosis (Ku) were analysed to test the normality of the distribution of the study variables (Kline 2005). The Skewness values ranged from 0.48 to 1.38 (in the fears of receiving compassion from others and in positive appraisal of major life events, respectively), while Kurtosis presented values ranged from -0.11 to 2.45 (in the age and in positive appraisal of major life events, respectively).

Preliminary data analyses indicated that data followed the assumptions of normality, linearity, homoscedasticity, independence of errors and multicollinearity and singularity among the variables (Field 2004).

#### **3.2. Descriptive and Correlation analyses**

Means (*M*) and standard deviations (*SD*) of the study's variables for the total sample ( $N = 400$ ) are presented in Table 1.

Correlation results demonstrated that age was negatively and weakly correlated with all the variables in study, except with the negative appraisals of major life events, which it was not correlated. Also, the cumulative number of major life events showed a positive and weak correlations with external shame and fears of receiving compassion from others, and presented a positive and moderate association with depressive symptoms. Moreover, positive appraisals of major life events were positively and weakly related with external shame, fears of receiving compassion from others and with depression symptoms. Negative appraisals of major life events were also positive and weakly associated with external shame and fears of receiving compassion from others and showed a positive and moderate correlation with depression symptoms.

External shame was positively and strongly linked with fears of receiving compassion from others and with depression symptoms. Finally, fears of receiving compassion from others presented a significant positive and moderate association with depression symptoms.

**Table 1.**

*Means (M), Standard Deviations (SD) and correlations between the study measures (N = 400)*

| Measures              | <i>M</i> | <i>SD</i> | 1.       | 2.      | 3.     | 4.      | 5.      | 6.      |
|-----------------------|----------|-----------|----------|---------|--------|---------|---------|---------|
| 1. Age                | 30.91    | 11.68     | -        | -       | -      | -       | -       | -       |
| 2. Number of events   | 3.51     | 2.67      | -0.15**  | -       | -      | -       | -       | -       |
| 3. Positive appraisal | 4.02     | 4.04      | -0.23*** | -       | -      | -       | -       | -       |
| 4. Negative appraisal | 4.70     | 4.85      | 0.00     | -       | -      | -       | -       | -       |
| 5. OAS_2              | 9.64     | 6.57      | -0.21*** | 0.29*** | 0.17** | 0.25*** | -       | -       |
| 6. FCS_from_others    | 16.68    | 9.21      | -0.12*   | 0.23*** | 0.13*  | 0.21*** | 0.53*** | -       |
| 7. Dep                | 4.75     | 4.82      | -0.10*   | 0.30*** | 0.14** | 0.30*** | 0.58*** | 0.44*** |

*Note.* Number of events= Number of major life events; Negative appraisal= Negative appraisal of major life events; Positive appraisal= Positive appraisal of major life events; OAS\_2= The Other As Shamer Scale\_2; FCS\_from\_others= Fears of compassion from others, subscale of fears of compassion scale (FCS); Dep= Depression symptoms, depression subscale of DASS\_21.

\*  $p < 0.050$ . \*\*  $p < 0.010$ . \*\*\*  $p < 0.001$ .

### 3.3. Path Analysis

Path analysis was tested to explore the impact of major life events, both the cumulative number of major life events and its individual's subjective appraisals (positive and negative) on depressive symptoms, considering external shame and fears of receiving compassion from others as mediators' mechanisms, while controlling the effects of age.

First, the path model was tested through a fully saturated model (with zero degrees of freedom), comprising 28 parameters which explained 39% of the variance of depression symptoms. However, results indicated that the seven following paths were not significant: the direct effect of positive appraisal of major life events on fear of receiving compassion from others ( $b_{\text{positive appraisal}} = 0.02$ ;  $SEb = 0.28$ ;  $Z = 0.05$ ;  $p = 0.957$ ), the direct effect of the number of major life events on depression symptoms ( $b_{\text{number of events}} = -0.03$ ;  $SEb = 0.35$ ;  $Z = -0.09$ ;  $p = 0.928$ ), the direct effect of negative appraisal of major life events on external shame ( $b_{\text{negative appraisal}} = 0.05$ ;  $SEb = 0.24$ ;  $Z = 0.20$ ;  $p = 0.844$ ), the direct effect of positive appraisal of major life events on depression symptoms ( $b_{\text{positive appraisal}} = 0.02$ ;  $SEb = 0.05$ ;  $Z = 0.33$ ;  $p = 0.745$ ), the direct effect of negative appraisal of major life events on fear of receiving compassion from others ( $b_{\text{negative appraisal}} = 0.08$ ;  $SEb = 0.14$ ;  $Z = 0.54$ ;  $p = 0.588$ ), the direct effect of positive appraisal of major life events on external shame ( $b_{\text{positive appraisal}} = -0.15$ ;  $SEb = 0.11$ ;  $Z = -1.45$ ;  $p = 0.148$ ), and the direct effect of number of events of major life events on fear of receiving compassion from others ( $b_{\text{number of events}} = 0.28$ ;  $SEb = 0.15$ ;  $Z = 1.82$ ;  $p = 0.069$ ). These paths were successively removed, and the model was recalculated. In the final model (Figure 1), all path coefficients were statistically significant ( $p < 0.050$ ), and revealed an excellent model fit [ $\chi^2(9) = 5.99$ ,  $p = 0.741$ ;  $CMIN/df = 0.67$ ;  $TLI = 1.00$ ;  $CFI = 1.00$ ;  $RMSEA = 0.00$ ;  $p = 0.980$ ;  $95\%CI = 0.00-0.04$ ] (Kline 2005). Particularly, this model accounted for 11%, 28%, and 38% of the variance of external shame, fears of receiving compassion from others, and depressive symptoms variances, respectively.

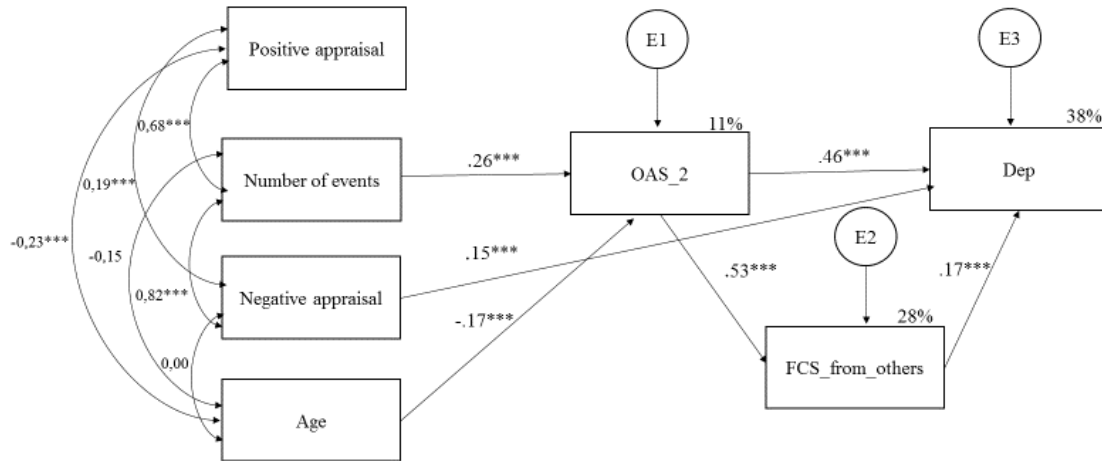
Results showed that the number of events presented a direct effect of 0.26 ( $b_{\text{number of events}} = 0.65$ ;  $SEb = 0.12$ ;  $Z = 5.54$ ;  $p < 0.001$ ) on external shame. In turn, negative appraisal had a direct effect on depression symptoms of 0.15 ( $b_{\text{negative appraisal}} = 0.15$ ;  $SEb = 0.04$ ;  $Z = 3.78$ ;  $p < 0.001$ ). External shame was linked to fear of receiving compassion

from others and depressive symptoms, with a direct association of 0.53 ( $b_{\text{external shame}} = 0.75$ ;  $SEb = 0.06$ ;  $Z = 12.53$ ;  $p < 0.001$ ) and of 0.46 ( $b_{\text{external shame}} = 0.33$ ;  $SEb = 0.03$ ;  $Z = 9.68$ ;  $p < 0.001$ ), respectively. In turn, fear of receiving compassion from others showed a direct effect on depressive symptoms of 0.17 ( $b_{\text{fear of compassion from others}} = 0.09$ ;  $SEb = 0.02$ ;  $Z = 3.64$ ;  $p < 0.001$ ).

The analysis of indirect effects showed that the number of events presented an indirect effect on fear of receiving compassion from others of 0.14 (90% CI = 0.09–0.20), which was totally mediated by external shame. Also, the number of events also presented an indirect effect on depression symptoms of 0.15 (90% CI = 0.09–0.20) through external shame and fear of receiving compassion from others. Finally, external shame showed a positive indirect effect of 0.09 (90% CI = 0.05–0.14) on depression symptoms, through the effect of fear of compassion from others.

Overall, the model accounted for 38% of depression symptom's variance, revealing that the impact of the number of events on depression symptoms is partially mediated by general feelings of shame and fears of receiving compassion. Also, the present model highlighted the direct association between negative appraisal of life events and higher levels of depressive symptoms.

**Figure 1.** Final Path Model (N= 400)



*Note.* Standardized path coefficients among variables are presented.

Positive appraisal= Positive appraisal of major life events; Number of events= Number of events major life events; Negative appraisal= Negative appraisal of major life events; OAS\_2= The Other As a Shamer Scale\_2; FCS\_from\_others= Fears of compassion from others, subscale of fears of compassion scale (FCS); Dep= Depression symptoms, depression subscale of DASS\_21.

\*\*\*p < 0.001

#### 4. Discussion

A consistent body of evidence has pointed out the association between major life events and depressive symptoms (Espejo et al. 2011; Philips et al. 2015). Nevertheless, the underlying emotional and psychological processes that contribute to this relationship remain unclear. Therefore, this study aimed to examine whether external shame and fears of receiving compassion from others would mediate the effect of the cumulative number of major life events and their appraisal on depressive symptoms, in the general population.

Results from correlation analyses revealed that the cumulative number of major life events and their subjective negative appraisal were associated with more depressive symptoms. These findings were expected and are consistent with previous research. Indeed, prior studies have showed that the occurrence of significant life events and their systematic negative appraisals are linked with depression symptoms (Espejo et al. 2011; Phillips et al. 2015; Sobrinho and Campos 2016;). Interestingly, results indicated that positive appraisal of major life events were also associated with depressive symptoms. There are some possible explanations for this finding. First, the occurrence of a major life event, even if perceived as positive, may imply a series of changes in one's life and involve an adaptation process (Pocnet et al. 2016), which can add stress and lead to depressive symptoms. Secondly, recent evidence has indicted that some people may be afraid of positive emotions, such as general feelings of happiness (Gilbert et al. 2012, 2014). Indeed, individuals might have misconceptions about positive emotions, such as "if I feel good something bad could happen", "happiness never lasts", "I don't deserve to be happy" (Gilbert et al. 2012), which is associated with depressive feelings.

Moreover, as hypothesized, results showed that major life events and their subjective appraisal were positively associated with external shame. These results suggest that the occurrence of a major life event may be perceived as indicating that one has negative attributes in the mind of others and can represent risk of being criticised, rejected, or humiliated by others. It is noteworthy to highlight that both the negative and the positive appraisal of major life events were correlated with shame. On one hand, events that tend to be perceived as negative such as divorce, financial or interpersonal problems, or serious illness, can lead to the perception that other see the individual as inadequate, inferior or unable to deal with life's problems. These events can thus be a source of shame feelings. On the other hand, major life events that tend to be appraised



as positive, such as academic or professional success, having a child, or getting married, can generate additional sources of stress, as well as pressure to maintain that level of success and to handle efficiently new responsibilities.

In line with literature, correlation analysis indicated that higher levels of external shame were positively linked with higher levels of fear of receiving compassion from others (Oliveira et al. 2017; Trindade and Duarte et al. 2018) and with depressive symptoms (Cheung et al. 2004; Kim et al. 2011). To further explore the association between these variables a mediational model was tested. It was hypothesized that external shame and fear of receiving compassion would mediate the relationship between major life events (number and their appraisal by the individual) on depressive symptomatology. Results from a path analysis revealed that the association between the cumulative number of major life events and depressive symptoms was fully mediated by external shame and fears of receiving compassion from others. These results confirmed our hypothesis and suggest that the cumulative occurrence of major life events may explain higher levels of depression when from this occurrence emerge shame feelings. The occurrence of multiple major life events in a short time frame may indeed lead to a perception that one may not be able to cope with or to adapt to such changes. This may lead to a sense of incompetence, inadequacy or inferiority and to a perception of lack of positive attributes to efficiently deal with multiple significant and possible stressful events. The present model also showed a direct effect of external shame on depression symptoms, which corroborates an extensive body of literature (e.g., Cheung et al. 2004; Gilbert 2000; Kim et al. 2011; Matos et al. 2015).

Additionally, results indicated that the relationship between external shame and depression symptoms is partly mediated by fears of receiving compassion from others, which is in line with previous literature on psychological health (Trindade and Duarte et

al. 2018) and eating psychopathology (Oliveira et al. 2017). This finding can suggest that individuals with high levels of external shame may have misconceptions about and difficulties in receiving compassion from others, which may make them more prone to present negative affect. Compassion can be perceived as pity or as an unhelpful attribute, and receiving compassion from others as sign of weakness, vulnerability, and inferiority (Gilbert 2017). Hence, people who fear compassion resist to accept reassurance, warmth, kindness and safeness signals from others, which is a crucial ability to maintain positive mental health especially when dealing with major life events (Matos and Duarte et al. 2017).

Results also showed a direct effect of negative appraisal of life events on depressive symptoms. This result is congruent with prior studies that have showed the association between these variables (Espejo et al. 2011; Sobrinho and Campos 2016). The negative appraisal of major life events seems to be associated with higher levels of depression independently of its association with shame feelings or fears of receiving compassion from others. It seems that the sole experience of an event perceived as negative (e.g., death of a close relative, getting fired, serious financial problems) can per se generate depression symptoms. Nevertheless, the relationship between the negative appraisal of major life events and this outcome should be further explored. Future studies should examine other psychological processes that may mediate this relationship (e.g., rumination, self-criticism, experiential avoidance). Lastly, it should be noted that, although the positive appraisal of major life events correlated (albeit weakly) with shame, fears of receiving compassion from others, and depression symptoms, in the tested model (and in the presence of the cumulative number of major life events and their negative appraisal), the positive appraisal of major life events did not present significant effects on these outcomes. This goes in line with previous suggestions that events evaluated as

positive are more likely to have an easier adaptation process than events that are evaluated negatively (Pocnet et al. 2016).

The current study has several limitations that should be considered when interpreting these findings. First, the cross-sectional design of the study limits causal interpretations. Therefore, future studies should examine the tested associations using longitudinal designs. Additionally, the exclusive use of self-report measures can have caused response bias. To overcome this limitation future studies should use other assessment measures (e.g., structured interviews) to attempt to replicate our findings. Furthermore, our sample presented high education levels and thus may not be representative of the general Portuguese population, which can limit the generalization of the results. It would also be interesting to replicate the present study in clinical populations of for example, depressed patients.

To sum up, the present study extends prior research by highlight emotional and psychological processes that may underlie the relationship between major life events and depressive symptoms. Specifically, this study seems to support that the occurrence of major life events can lead to general feelings of shame, which can in turn be associated with fear and resistance in receiving affiliative signals from others, which may explain the experience of depressive symptoms. These findings support the relevance of developing compassion skills for facing adaptively life's challenging contexts.

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## **APPENDIX**

Submission information of Paper:

Guide for authors of *Current Psychology*

## **Current Psychology- Instructions for Authors**

### **Editorial procedure**

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- A concise and informative title

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### ***Abstract***

Please provide an abstract of 150 to 250 words. The abstract should not contain any undefined abbreviations or unspecified references.

### ***Keywords***

Please provide 4 to 6 keywords which can be used for indexing purposes

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- Do not use field functions.
- Use tab stops or other commands for indents, not the space bar.
- Use the table function, not spreadsheets, to make tables.
- Use the equation editor or MathType for equations.
- Save your file in docx format (Word 2007 or higher) or doc format (older Word versions).

Manuscripts with mathematical content can also be submitted in LaTeX.

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### ***Abbreviations***

Abbreviations should be defined at first mention and used consistently thereafter.

### ***Footnotes***

Footnotes can be used to give additional information, which may include the citation of a reference included in the reference list. They should not consist solely of a reference

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Always use footnotes instead of endnotes.

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Acknowledgments of people, grants, funds, etc. should be placed in a separate section on the title page. The names of funding organizations should be written in full.

### ***Citation***

Cite references in the text by name and year in parentheses. Some examples:

- Negotiation research spans many disciplines (Thompson 1990).
- This result was later contradicted by Becker and Seligman (1996).
- This effect has been widely studied (Abbott 1991; Barakat et al. 1995; Kelso and Smith 1998; Medvec et al. 1999).

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Harris, M., Karper, E., Stacks, G., Hoffman, D., DeNiro, R., Cruz, P., et al. (2001). Writing labs and the Hollywood connection. *Journal of Film Writing*, 44(3), 213–245.
- Article by DOI  
Slifka, M. K., & Whitton, J. L. (2000) Clinical implications of dysregulated cytokine production. *Journal of Molecular Medicine*, <https://doi.org/10.1007/s001090000086>



- Book  
Calfee, R. C., & Valencia, R. R. (1991). *APA guide to preparing manuscripts for journal publication*. Washington, DC: American Psychological Association.
- Book chapter  
O’Neil, J. M., & Egan, J. (1992). Men’s and women’s gender role journeys: Metaphor for healing, transition, and transformation. In B. R. Wainrib (Ed.), *Gender issues across the life cycle* (pp. 107–123). New York: Springer.
- Online document  
Abou-Allaban, Y., Dell, M. L., Greenberg, W., Lomax, J., Peteet, J., Torres, M., & Cowell, V. (2006). Religious/spiritual commitments and psychiatric practice. Resource document. American Psychiatric Association. [http://www.psych.org/edu/other\\_res/lib\\_archives/archives/200604.pdf](http://www.psych.org/edu/other_res/lib_archives/archives/200604.pdf). Accessed 25 June 2007.

Journal names and book titles should be italicized.

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- All tables are to be numbered using Arabic numerals.
- Tables should always be cited in text in consecutive numerical order.
- For each table, please supply a table caption (title) explaining the components of the table.
- Identify any previously published material by giving the original source in the form of a reference at the end of the table caption.
- Footnotes to tables should be indicated by superscript lower-case letters (or asterisks for significance values and other statistical data) and included beneath the table body.

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