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SOCIAL ANXIETY, TRAUMATIC SHAME EXPERIENCES AND FEARS OF COMPASSION:
THE MODERATING ROLE OF POSTTRAUMATIC GROWTH

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Dissertação no âmbito do Mestrado Integrado em Psicologia, área de especialização em Psicologia Clínica e Saúde, subárea de especialização em Intervenções Cognitivo-Comportamentais nas Perturbações Psicológicas e da Saúde orientada pela Professora Doutora Maria do Céu Salvador e apresentada à Faculdade de Psicologia e Ciências da Educação da Universidade de Coimbra.

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"No final tudo acaba bem.
E se não está bem,
é porque ainda não acabou"
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"Capa negra de saudade

No momento da partida

Segredos desta cidade

Levo comigo p'ra vida"

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Social anxiety, traumatic shame experiences and fears of compassion: the moderating role of post-traumatic growth

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Abstract

Although one study had addressed the memories of the traumatic impact of early shame experiences and the impact of fears of compassion on social anxiety (SA), no study addressed the relation between SA and posttraumatic growth (PTG), and no study considered all of these variables together. Thus, the present study aimed to investigate the differential impact of memories of the traumatic impact of early shame experiences in SA, exploring the mediating role of fears of compassion and the moderating role of posttraumatic growth in these relationships. The cross-sectional study included two community samples: university students (*N= 357*; M_{age} = 20.54; *DP* = 1.62) and general population (*N* = 158; M_{age} = 42.83 *DP* = 9.80). Memories of the traumatic impact of early experiences, fears of compassion, SA and PTG were assessed. In both samples, all variables had a positive association with each other. Fears of compassion mediated the relation between memories of the traumatic impact of early shame experiences and SA in both samples. Only in the student sample did we find a moderating effect of posttraumatic growth in the relationship between traumatic characteristics of shame experiences and social anxiety. Clinical implications emphasize the relevance of posttraumatic growth in therapeutic approaches. Other results are discussed, as well as other clinical implications and contributions of the present study.

Key-words: Fears of compassion; memories of the traumatic impact of early shame experiences; social anxiety; posttraumatic growth

Resumo

Embora um estudo tenha abordado as memórias do impacto traumáticos das experiências de vergonha e o impacto dos medos da compaixão na ansiedade social (AS), nenhum estudo abordou a relação entre a AS e o crescimento pós-traumático e nenhum estudo explorou a relação entre todas estas variáveis. Assim, o presente estudo teve como objetivo, investigar o efeito das memórias do impacto traumático das experiências precoces na AS, explorando o papel mediador dos medos da compaixão e o papel moderador do crescimento pós-traumático nestas relações. O estudo transversal incluiu duas amostras não clínicas: população universitária (N = 357; M_{idade} = 20.54; DP = 1.62) e população geral (N = 158; M_{idade} = 42.83; DP = 9.80). Foram avaliadas as seguintes vaiáveis: memórias do impacto traumáticos das experiências precoces de vergonha, medos da compaixão, AS e crescimento pós-traumático. Em ambas as amostras, todas as variáveis tiveram uma correlação positiva entre si. Os medos da compaixão mediaram a relação entre as memórias do impacto traumáticos das experiências precoces de vergonha e a AS em ambas as amostras. Apenas na amostra de estudantes se verificou um efeito mediador do crescimento pós-traumático na relação entre as características traumáticas das experiências de vergonha e a AS.

As implicações clínicas enfatizam a relevância do crescimento pós-traumático em abordagens terapêuticas. Serão abordados também outros resultados, assim como outras implicações clínicas e contribuições do presente estudo.

Palavras-chave: Medos da compaixão; memórias do impacto traumáticos das experiências precoces; ansiedade social; crescimento pós-traumático

Introduction

Social Anxiety

The evolutionary perspective of the mind presupposes that the brain structure has evolved adopting new competences which offer great advantages to deal with the real world but that come with a lot of trade-offs in relation to the inner world, being responsible for much of human suffering (Gilbert, 2014a). In this context, Gilbert (2010) proposed the existence of three emotional regulation systems. First there is a threat system that detects and rapidly responds to threats in order to protect us from danger, and is related to defensive emotions such as anger, anxiety, or shame, and defensive behaviors (Gilbert, 2009; LeDoux, 1998). Secondly the drive system motivates us to seek out resources important for our survival and prosperity, and is related to positive emotions such as pride, pleasure and excitement (Depue & Morrone-Strupinsky, 2005; Gilbert 2010). Finally, the soothing system, which is activated when individuals are no longer focused on threats nor competing for resources, signals that it is safe to rest and relax, and is associated with lower arousal forms of positive affect (e.g., calmness and reassurance) and with affiliative behaviors (Depue & Morrone-Strupinsky, 2005; Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008).

One of the major threats to humans is failing to elicit interest and positive affect in the minds of the others, and the consequent rejection or ignoring (Gilbert, 2014a). In order to avoid inferiority and its consequences, competitive mentalities and the drive system are focused on winning other's approval and acceptance (Gilbert, 1998b, 2001, 2007, 2014a).

Social anxiety develops because socially anxious people are extremely focused on trying to elicit other's approval and investment but are always feeling that they are failing on it (Schlenker & Leary, 1982). This relates to the perception of social threat (Gilbert, 2014) and to the fear of having a bad performance (Gilbert, 2001; Leary & Kowalski, 1995; Schlenker & Leary, 1982). Thus, social anxiety can be adaptive to cope with social threats (Weeks, Rodebaugh, Heimberg, Norton & Jakatdar, 2008), by helping people to pay attention to what is not socially acceptable and that could result in social damage (Gilbert, 1997, 2001; Gilbert & McGuire, 1998). These mechanisms can be maladapative when social anxiety becomes more severe or is frequently experienced (Hope, Heimberg, Juster, & Turk, 2000), causing suffering and marked interference in one's life, and might then be diagnosed as social anxiety disorder (SAD). SAD is characterized by an intensified fear or anxiety in social situations in which the individual may be subject to the scrutiny of others (APA, 2013), being the most common anxiety disorder (Kessler et al., 1994), affecting 13.30% of the Portuguese population (Pinto-Gouveia, Cunha, & Salvador, 1997).

Compassion and Fears of Compassion

The Dalai Lama (1995) defines compassion as 'an openness to the suffering of others with a commitment to relieve it' (p.16). According to Gilbert (2014) compassion is conceptualized as a prosocial motivation and is related to the ability of care, sympathy, tolerate unpleasant

emotions, empathic understanding, non-judging or condemning and also to the feelings of kindness, gentleness, and warmth. In terms of the direction of compassion, this processing is not static rather it occurs in a social-interactional context which means that we can have compassionate feelings for others, experience compassion from others, and can have empathy and compassion for ourselves (self-compassion) (Gilbert et al., 2011; Kirby et al., 2019).

According to Gilbert and colleagues (2012) some people may not necessarily experience pleasurable positive emotions, such as joy, happiness, kindness, love, and safeness and, these same emotions can also be feared. For example, rather than being unable to experience pleasure and happiness, some depressed individuals may have an actual fear or unwillingness to experience positive emotions (Gilbert, McEwan, Catarino, Baião, Palmeira, 2014). Therefore, for some individuals, positive emotions such as compassion gives rise to avoidance or even fear reactions related to compassion (fear of compassion), (Gilbert, 2010a), involving difficulty in receiving or giving care in times of distress (Gilbert et al., 2011).

A study by Matos, Duarte and Pinto-Gouveia (2018) have proposed several explanations for fears of compassion, most of them related to the difficulty to trust others due to not feeling safe in their social world such as fear of not receiving affection or being rejected (Bowlby, 1969; Gilbert, 2010a; Gilbert & Procter, 2006); fear that other people will take advantage (Feeney & Collins, 2001; Mikulincer, Shaver, Gillath, & Nitzberg, 2005); fear that others will expect more of the individual (Wallace & Alden,1997); fear of not knowing how to deal with this unfamiliar experience; fear that others will not provide genuine care; consider that one is underserving of compassion (Gilbert, 2009; Gilbert & Procter, 2006); fear that compassion is a weakness or self-indulgent; and fear that compassionate efforts will be seen as incompetent, unhelpful, or rejected (Gilbert et al., 2014; Kirby et al., 2019).

A new line of research has pointed out that such fears, and in particular fears of compassion for the self and of receiving compassion from others, are linked to a range of psychopathological indicators, such as self-criticism, increased symptoms of depression, anxiety and stress (Gilbert et al., 2011, 2012; Matos et al., 2018), shame (Kelly, Carter, Zuroff, & Borairi, 2013), and to high levels of physiological indicators of stress responses (Duarte, McEwan, Barnes, Gilbert, & Maratos, 2015), which also predicts the emergence of social anxiety.

Similarly, a recent study correlated social anxiety with all fears of compassion and found that only the fear of receiving compassion (from others and self) predicted SA (Cunha, Pereira, Galhardo, Couto, & Massano-Cardoso, 2015).

Shame memories and psychopathology

Shame has been recognized as one of the most damaging/harmful self-conscious emotions. It is a socially-focused multifaceted emotion, that merges with primary emotions (e.g., anger, anxiety, disgust) and involves physiological, affective, cognitive, behavioural, and social

components. Although, considered a ‘‘private emotion’’, it is usually related to the experience of having negative aspects of the self exposed to others (Matos, Pinto-Gouveia, Duarte, 2012)

Shame experiences can occur very early in life, in our interactions with significant others, and comprise a primary threat to the (social) self, and therefore shame memories can texture the whole sense of self. These memories can be associated with a sense of vividness and high emotional affect with traumatic memory characteristics, such as intrusion, avoidance and hyperarousal. Typical here are memories of painful bullying, criticism from a parent, failing an important examination where one thought one would pass, sexual impotency, being neglected, sexual or physical abuse (Matos, Duarte, & Pinto-Gouveia, 2017; Matos, Pinto-Gouveia & Gilbert, 2013).

A study of Matos and colleagues (2012) suggests that shame recollections from childhood and adolescence can become a central component of personal identity, a turning point in the life story and a reference point for attribution of meaning to other events. These findings support the centrality of event theory, to which a memory of a trauma or a negative emotional event can become central to one’s life story and identity. Higher centrality of a negative or traumatic event has been related to increased levels of post-traumatic stress reactions, depression, anxiety, dissociation, and worse physical health.

Shame memories that function as trauma memories and that become central to personal identity and life story, may promote perceptions of having compassion for self and from others as frightening and aversive. Two possible explanations were given by Matos and colleagues (2018). On one hand, experiencing shame events may render one to feel inferior, defective, powerless and unattractive, and to perceive others as critical, rejecting, condemning or abusive, consequently influencing the formation of negative self-other schemas. On the other hand, the lack of experiences of safeness and warmth as a child may lead to an undeveloped safeness-soothing system, which undermines one’s ability to generate warmth and feel safe within social relationships and effective emotional regulation. Therefore, the experience of an affiliative emotion such as compassion may reactivate these emotional memories and thus elicit these same feelings of shame, threat or even anger. Later, these negative emotional experiences may underline the development of current fears of compassion. (Matos, Duarte, & Pinto-Gouveia, 2018).

In the same study, correlational analyses showed that individuals with heightened fears of compassion presented higher levels of depressive and anxious symptoms, and paranoid ideation and these were associated with increased traumatic and centrality to identity characteristics of shame memories. It is worth noting that the magnitude of these correlations was stronger for fears of compassion for self and of receiving compassion from others (Matos, Duarte, & Pinto-Gouveia, 2018).

Post-traumatic growth

Tedeschi and Calhoun (1995) created the concept of posttraumatic growth (PTG) to describe positive changes after illness or other potentially stressful experiences. This construct offers a better comprehension of the consequences of a severely traumatic event, pointing out the positive possible changes (Balfe, et al. 2016). The positive changes are meant to deal with the three main domains of life: improvements in self, improvements in interpersonal relationships, and enhanced spiritual or religious experiences (Tedeschi & Calhoun, 2004). According to Tedeschi and Calhoun (2004), PTG means that life becomes fuller and more meaningful as a result of difficult events or situations, such as supporting loved ones with cancer, however that does not mean that suffering becomes less intense as a result of doing so.

Traumatic events by themselves are insufficient to trigger PTG. It also requires that an individual reflect on the experiences that they are going through and search those experiences for meaning. Therefore, PTG is not the result of the trauma but stems from the struggle to make sense of and to cope with that trauma (Ruf et al., 2009). The notion that the event has to be extreme to shatter fundamental assumptions is supported by research showing a positive linear association between higher trauma perceptions and levels of PTG (Teixeira & Pereira, 2013).

Canavarro, Silva & Moreira (2015) studies showed that approximately half of the women who receive the diagnosis of breast cancer perceived it as a traumatic experience and that the prevalence estimates of abnormal anxiety range from 10% to 30% and are particularly high during the initial phases of cancer, it is also evidenced that most patients experience at least one positive change after the diagnosis.

Canavarro et al. (2015) described that the most frequently reported positive change after cancer is the strengthening of interpersonal relationships, which is a change characterized by a greater sense of closeness and connection to others, including an increased satisfaction with the marital relationship. In another study, Balfe and colleagues (2016) found that social support, as a supportive social context and a key environmental resource can facilitate the successful confrontation of difficulties and cognitive adaptation processes when facing a cancer diagnosis, and thereby promote PTG.

Many patients also report a greater appreciation of life and a shift in life priorities and goals resulting from a revision of one's attitudes toward life. Furthermore, some patients report strengthened spirituality and perceive themselves as being stronger and more capable to cope with life adversities (Canavarro et al., 2015).

The present study

Limited studies relate SA with fears of compassion, and few studies analyzed the impact of fears of compassion on SA. The only study to test this specific association was by Cunha and colleagues (2015), in which explained the effect of fears of compassion on social anxiety mediated by childhood negative memories. However, this study did not use a measure of shame memories

and did not discriminate the effect of PTG on SA. Moreover, to the best of our knowledge no other study related social anxiety with fears of compassion, PTG and memories of the traumatic impact of early shame experiences. Therefore, there is a lack of research exploring the relationships between SA, fears of compassion, shame memories and PTG. The general aim of the present study is to explore the mediation role of fears of compassion in the relationship between memories of the traumatic impact of early shame experiences occurred in childhood and adolescence and social anxiety and the moderator role of posttraumatic role in these relationships. In terms of hypotheses, it was expected that PTG, SA, fears of compassion and memories of the traumatic impact of early shame experiences would be positively correlated with each other (H1). It was also expected that the relationship between memories of the traumatic impact of early shame experiences and SA, would be mediated by fears of compassion (H2). Moreover, it was expected that the effect of memories of the traumatic impact of early shame experiences on SA would be moderated by PTG (H3) and that the effect of memories of the traumatic impact of early shame experiences on fears of compassion would also be moderated by PTG (H4).

Method

Sample

A cross-sectional study in the adult Portuguese population, was carried out to achieve the aforementioned objectives. Two different samples were collected to obtain a representative community sample: a student sample and a nonstudent sample. Exclusion criteria were: age bellow 18 years old and superior to 60 years old, foreign nationality and evidence of random answers in the questionnaires.

Student Sample

This sample consisted of 357 college students of which 206 (57.7 %) were female and 151 (42.3 %) were male. The participants mean age was 21 (M = 20.54; DP = 1,62) and the average number of years of schooling was 13 (M = 13.05; DP = 1,49). The majority of the students (93.6 %) were not having psychological counselling at the moment of filling. There were statistically significant differences in age ($t_{(354)} = -3.04$, $p < .01$) and in school years ($t_{(332.580)} = 2.02$, $p < .05$) in relation to gender but Cohen's d revealed to be small for both differences (d = 0.3 for age and d = 0.2 for school years).

Nonstudent Sample

This sample consisted of 158 subjects, of which 92 (58.2 %) were female and 66 (41.8 %) male. The participants mean age was 43 (M= 42.83; DP = 9.80). The average number of years of schooling was 13 (M= 12.66; DP = 3.00). The majority of them (53.8 %) had a medium socio-economic level, 29.7 % low and 14.6 % high. The majority of the population (95.6 %) were not having psychological counselling at the moment of filling. There were statistically significant

differences in age ($t_{(117.341)} = 2.19$, $p < 0.05$) but not in school years ($t_{(153)} = .30$, $p = .765$) or socioeconomic level ($\chi 2_{(2)} = 2.98$, $p = .226$), in relation to gender. Cohen's *d* for age differences was small ($d = 0.4$).

Measures

A sociodemographic data questionnaire was administered in order to obtain information regarding age, gender, number of years of schooling successfully completed, marital status and city of origin. In order to achieve the aforementioned objectives, the following self-reported instruments were administered in both samples:

The *Impact of Event Scale – Revised* (IES-R; Weiss & Marmar, 1997; Portuguese version by Matos, Pinto-Gouveia, & Martins, 2011) is a 22-item self-report questionnaire designed to assess current distress for any life event, measuring three specific characteristics related to trauma: intrusion, avoidance and hyperarousal. In this study before the filling of this questionnaire, participants were provided with a brief introduction about the concept of shame, and then asked to remember a shame experience from childhood or adolescence with parents, peers, significant others, or a teacher. They were then asked to answer the IES-R based on the traumatic impact of this experience. Each item of the IES-R is rated in a 5-point Likert scale (0 = *Not at all*, 4 = *Extremely*). Although it was found a three-factor study in the original study, with alphas between .79 and .92, the Portuguese version revealed a single-factor structure with a Cronbach alpha of .96, and an acceptable test-retest reliability, convergent and divergent validity. In the present study the IES-R showed a very good internal consistency both in the student ($\alpha = .94$) and in the non-student sample ($\alpha = .96$).

The Fears of Compassion Scale (FCS; Gilbert, McEwan, Matos & Rivis, 2011; Portuguese version by Matos, Pinto-Gouveia, Duarte, & Simões, 2016) comprises three subscales consisting of 1) fear of compassion for self - 15 items; 2) fear of receiving compassion from others - 13 items; and 3) fear of expressing compassion for others - 10 items, 9 in the Portuguese version. The items are rated on a 5-point Likert scale (0 = Don't agree at all, 4 = Completely agree), higher scores representing a greater fear of developing feelings of compassion for others, for the self (self-compassion), or of receiving compassion from others. The three subscales presented, in the original version, a good construct and criterion validity, and good indices of internal consistency (Cronbach's alfas were $\alpha=.72$ for fears expressing compassion, $\alpha=.80$ for fears of receiving compassion from others and $\alpha=.83$ for fears in giving compassion to self). In the Portuguese version, the Cronbach's alphas were $\alpha=.88$ for fears expressing compassion for others, $\alpha=.91$ for fears of receiving compassion from others and $\alpha=.94$ for fears in giving compassion to self (Simões & Pinto-Gouveia, 2012). Concurrent and divergent validity were also adequate. In the present study the three subscales also presented a good internal consistency with Cronbach's alpha values between .88 and .94, in the student sample, and between .91 and .94, in the nonstudent sample.

The Posttraumatic Growth Inventory (PTGI; Tedeschi, & Calhoun, 1996; Portuguese version, Teixeira & Pereira, 2013) is a 21-item self-response scale that measures the degree of positive change that occurred in the person's life as a result of an adverse experience (in the present study, as a result of a meaningful experience of shame) in a Likert scale of 5 points (from 0 = I did not experience this change as a result of the experience of shame; 5 = I experienced this change to a very high degree as a result of the experience of shame) in that the higher the value obtained, the greater the degree of growth achieved. It presents, in the original version, a factorial structure of five factors with good internal consistency: new possibilities (α = .84); relationship with others (α = .85); personal strength (α = .72); spiritual change (α = .85); and appreciation for life (α = .67). The Portuguese version is also constituted by the same five factors, the factors spiritual changes and appreciation for life are those with the most questionable internal consistency values (α = 0.69 and α = 0.62). The original study also showed good test-retest validity for the total scale (r = .71), good discriminant validity and good construct validity. Both the original and the Portuguese versions presented excellent internal consistency for the total scale (α = 0.90 and α = 0.94, respectively) and a good concurrent validity. In this study, only the total score was used, presenting alphas of α = 0.97 and α = .98 for the students sample and adults sample, respectively.

The Social Interaction Anxiety Scale (SIAS; original version, Mattick & Clarke, 1998; Portuguese version, Pinto-Gouveia & Salvador, 2001) evaluates the social anxiety felt in the interaction with others. It is a measure composed of 19 items, classified in a Likert scale of 5 points, ranging from 0 (Not at all) and 4 (Extremely). Higher values are associated with higher levels of anxiety in situations of social interaction. The original version had a strong internal consistency, with a Cronbach's alpha of .94 in a community sample and .93 in a clinical sample. The Portuguese version also had good psychometric characteristics, with a Cronbach alpha of .90, a test-retest correlation coefficient of .77. and a good concurrent validity. The cutoff point for considering the presence of social anxiety symptomatology was 35.95. In the present investigation, the alpha of the university and non-university sample was .93.

Procedure

The present study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra.

The student sample was collected in 25 institutions of higher education in Portugal (47 different courses), particularly Coimbra, and the sample of non-students was collected through the snowball method. In both samples, participants belonged to different districts from the North, Center and South of the country and from the Portuguese Islands. All subjects answered a set of self-reported questionnaires and a sociodemographic data questionnaire in paper format. Prior to the application of the research protocol, informed consent was obtained from the participants,

who were informed about the study's confidentiality and their voluntary participation. The research protocol was completed in an average time of 40 minutes and had two counterbalanced versions to prevent effects of response contamination and fatigue effects.

Data Analysis

Data analyses were conducted using the SPSS program (Statistical Package for the Social Sciences version 25 for Mac; Armonk, NY: IBM Corp.), and computation tool PROCESS v3.3 by Andrew F. Hayes.

Adherence to normality was assessed using the Kolmogorov-Smirnov test and an outlier's analysis was performed by graphing the results (box diagrams). Descriptive statistics were performed to analyze demographic variables and mean scores in all variables in study as well as the deviations by asymmetry (skeweness) and tailedness (kurtosis). Multicollinearity was also examined by inspecting the tolerance and variance inflation factor (VIF < 5) (Kline, 2005). Gender differences in sociodemographic variables were tested using independent samples t– tests for continuous variables and qui-square for categorical variables (Field, 2013). The interpretation of the effect size parameter was based on Cohen's (1988) criteria, where Cohen's *d* values around .2 are considered small, .5 medium and .8 large. The socioeconomic level (low, medium and high) was distinguished based on Simões' classification (1994). Internal consistency indices were calculated to each instrument and respective factors, considering Cronbach's values of less than .59 as inadmissible, between .60 and .70 weak, between .71 and .80 acceptable, between .81 and .90 high, and between .91 and 1 excellent (Pestana & Gageiro, 2008). To carry out the correlations, Pearson correlation coefficients were performed to explore the relationships between the variables under study and sociodemographic variables, identifying possible covariates and analyzing the associations between variables, according to the hypotheses under study. In assessing the magnitude of correlations, a correlation coefficient lower than .1 reveals a very small association, between .1 and .3 medium association, and higher than .5 is a large association (Cohen, 1992)

To examine the hypotheses aforementioned, specifically, the indirect and direct effect of memories of the traumatic impact of early shame experiences (independent variable) on SA (dependent variable) through fears of expressing compassion for others (mediator [M1]), fears of receiving compassion from others (mediator [M2]) and fear of compassion for self (mediator [M3]), moderated by posttraumatic growth, it was created a model of moderated mediation with PROCESS (Model 8 in Hayes, 2018), for both samples. Hence, in the current study, the moderator was hypothesized to affect the path that linked the independent variable and the dependent variable (direct effect) (path *a*), the path that linked the independent variable and the M1 (path *b*), the independent variable and the M2 (path *c*), and the independent variable and the M3 (path *d*). Prior to model estimation, the variables used in the construction of the products were mean-centered (Aiken & West, 1991). In the absence of one or more significant interactions, the model

was re-estimated after the removal of non-significant interactions (Hayes, 2018). The indirect or mediation effect was assessed using a bootstrapping procedure with 10,000 resamples. This procedure creates 95% bias-corrected and accelerated confidence intervals (95% BCa CIs) of the indirect effects, which are considered significant if zero is not contained within the lower and upper CIs. The significance was set at the .05 level.

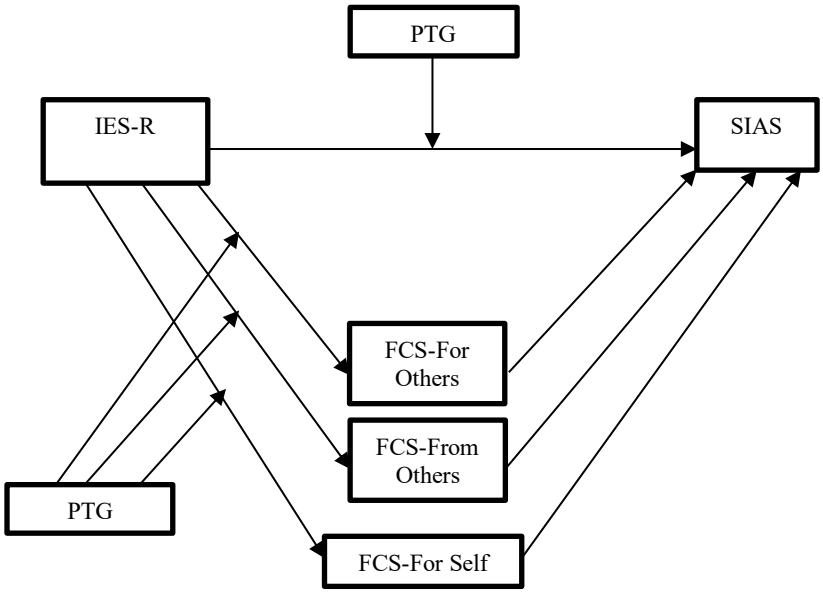

Figure 1. *Diagram of the Model 8 for both samples.*

Results

Preliminary Data Analysis

No severe violations to the normal distribution of the variables were found, with values of kurtosis and skewness within normal values in the student and non-student sample. The missing values for the variables under study were filled using the SPSS program (Transform - Replace missing values). Although there were moderate outliers for some variables under study, after assessing that there were no significant differences in results with and without outliers, we opted to keep them and insure ecological validity.

After we analysed the sample differences, it was decided to separate the analyses, since statistically significant differences were verified, with medium and high values of Cohen's *d*,

namely in the Fears of Compassion Scale- From Others (d = .30) and Social Interaction Anxiety Scale (d = .81).

Table 1 presents descriptive statistics and differences between the student and general adult population samples in regard to the variables under study. There were statistical differences in all variables under study, with low (IES-R, FCS-For Others, FCS-For Self, PTGI), medium (FCS-From Others) and high (SIAS) values for Cohen's *d*. The student population scored significantly higher for all variables under study.

Table 1.

Descriptive statistics and differences between the student and general population samples

	Variables	**Student Sample N = 357 *M* (*DP*)**	**General Adult Population N = 158 *M* (*DP*)**	***t***	***d***
1	IES-R	31.53 (19.08)	27.29 (18.64)	2.36*	.22
2	FCS-For Others	18.61 (7.78)	17.34 (8.50)	1.60	.16
3	FCS-From Others	17.36 (11.45)	14.11 (10.16)	3.21*	.30
4	FCS-For Self	14.14 (11.90)	12.63 (11.74)	1.34	.13
5	PTGI	32.59 (26.34)	29.94 (28.52)	1.00	.10
6	SIAS	33.12 (15.17)	21.46 (13.60)	8.63***	.81

Note. IES-R = Impact of Event Scale-Revised; FCS-For Others = Fears of Expressing Compassion for Others - subscale of the Fears of Compassion Scale; FCS-From Others = Fears of Receveing Compassion from Others subscale of the Fears of Compassion Scale; FCS-For Self = Fears of Compassion for Self-subscale of the Fears of Compassion Scale; PTGI = Posttraumatic Growth Inventory; SIAS = Social Interaction Anxiety Scale. *p < .05; **p < .01; ***p < .001

Descriptive Statistics

We saw pertinent to describe the qualitative variables of the shame memories, specifically, who the shamer was (Figure 2), the context (in the presence or absence of other people; Figure 3) and age (Figure 4). The mean age for when the shame experience occurred was 13 years old for both the student (M = 13.13; DP = 3.83) and general adult population samples (M = 12.66; DP = 4.30).

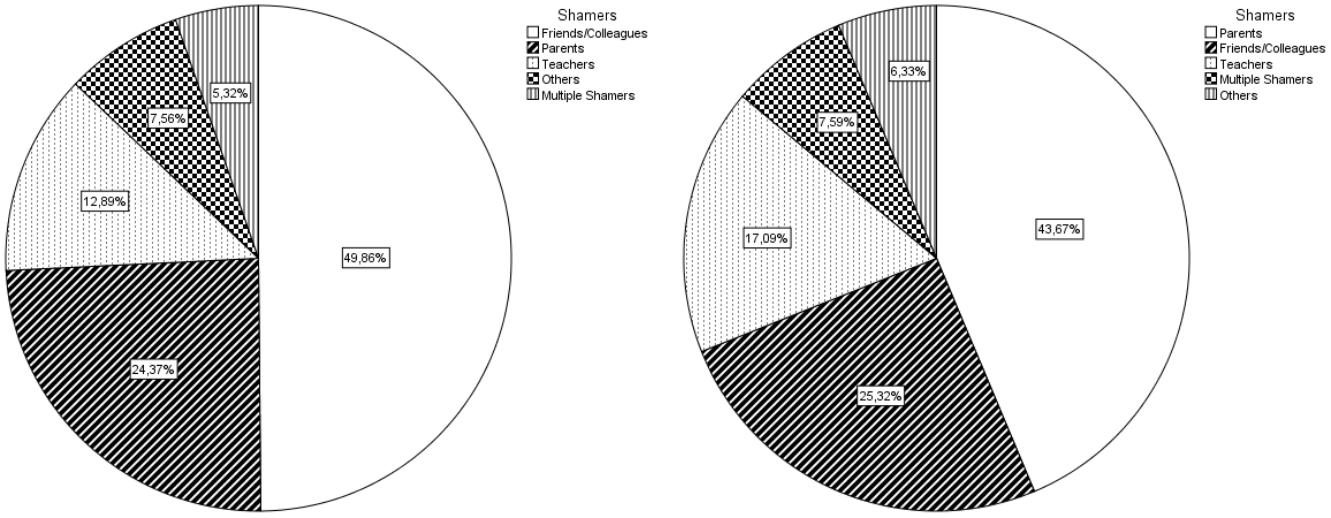

Figure 2. *Pie charts of who the shamer was in the shame memory for the student sample (left) and general adult population sample (right).*

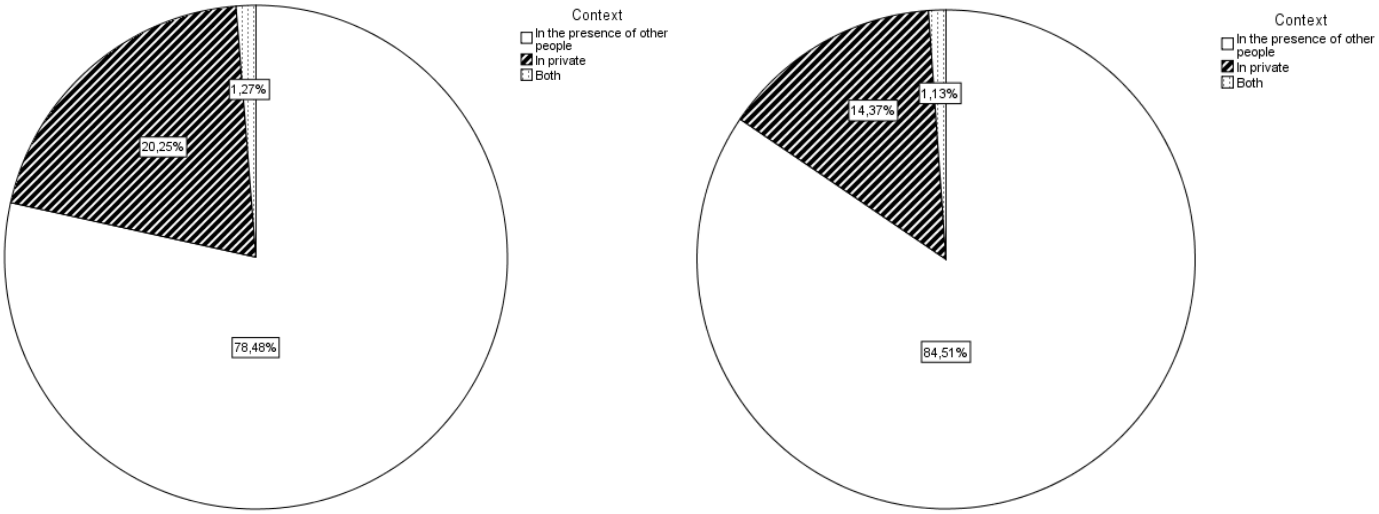

Figure 3. *Pie charts of the context of the shame memory for the student sample (left) and general adult population sample (right)*

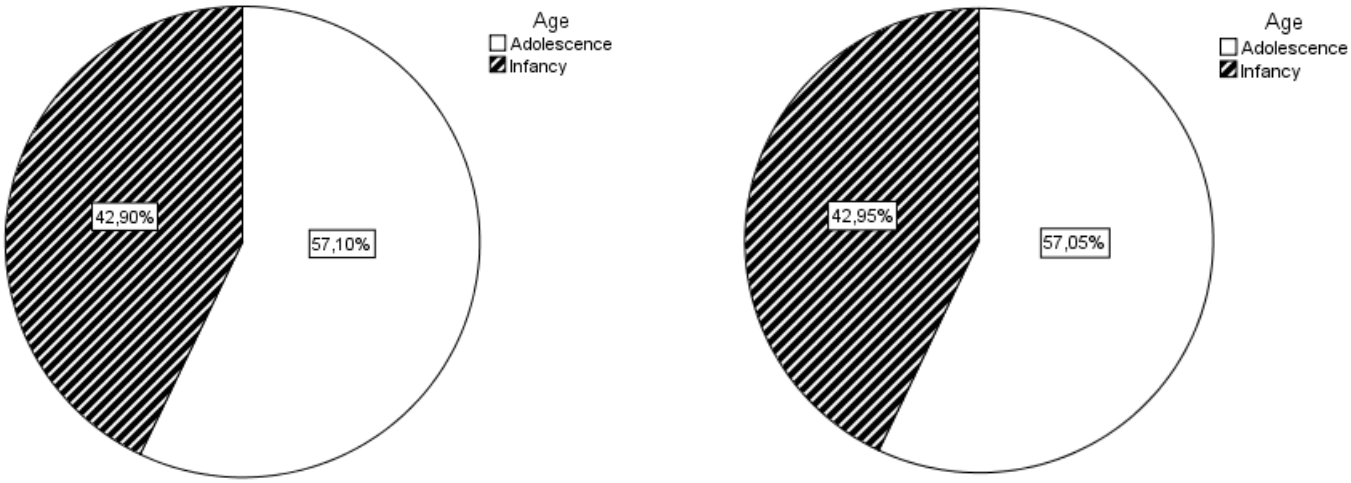

Figure 4. *Pie charts of whether the shame experience remembered occurred in infancy or adolescence for the student sample (left) and general adult population sample (right).*

Correlations

Table 2 presents all correlations between the variables under study and also their correlation with age and gender. The correlation analysis revealed that all fears of compassion were positive and significant for both samples in association with social anxiety. Since the correlation between fears of expressing compassion for others and social anxiety was low, we decided to remove this variable on the subsequent analysis. On the other hand, the correlation between memories of the traumatic impact of early shame experiences and social anxiety, fears of compassion and posttraumatic growth were moderate and significant, for both samples. Posttraumatic growth had low and significant correlations with social anxiety and with fears of compassion, for the student and non-student sample.

Even though there were no multicollinearity problems among study variables, examining the correlation matrix there were significant and considerably large correlations between fears of receveing compassion from others and fears of compassion for self. For this reason, we decided to change the original model into four simpler moderated mediation models with PROCESS (model 8 in Hayes, 2018; Figure 3), thus examining the indirect and direct effect of memories of the traumatic impact of early shame experiences on SA, mediated by fears of receiving compassion from others and fears of compassion for self, independently, moderated by posttraumatic growth.

Table 2.

Correlations between variables under study in the student and non-student sample

	População Universitária (*N* = 357)								
	Variables	1	2	3	4	5	6	7	8
1	Age	-							
2	Gender	.16**	-						
3	SIAS	-.09	-.02	-					
4	FCS-For Others	-08	.02	.24**	-				
5	FCS-From Others	-.07	-.04	.65**	.54**	-			
6	FCS-For Self	-.04	.14**	.48**	.38**	.73**	-		
7	PTGI	-.11*	.05	.16**	.20**	.27**	.19**	-	
8	IES-R	-.01	-.10	.45**	.26**	.52**	.43**	.50**	-

Note. SIAS = Social Interaction Anxiety Scale; FCS-For Others = Fears of Expressing Compassion for Others - subscale of the Fears of Compassion Scale; FCS-From Others = Fears of Receveing Compassion From Others subscale of the Fears of Compassion Scale; FCS-For Self = Fears of Compassion for Self subscale of the Fears of Compassion Scale; PTGI = Posttraumatic Growth Inventory; IES-R = Impact of Event Scale-Revised. *p < .05; **p < .01

	População Geral (*N* = 158)								
	Variables	1	2	3	4	5	6	7	8
1	Age	-							
2	Gender	-.18*	-						
3	SIAS	-.14	.05	-					
4	FCS-For Others	-.10	.08	.33**	-				
5	FCS-From Others	-.11	-.01	.59**	.59**	-			
6	FCS-For Self	-.11	-.02	.60**	..45**	68**	-		
7	PTGI	-.15	-.01	.28**	.13	.31**	.22**	-	
8	IES-R	-.03	-.07	.49**	.23**	.41**	.41**	.45**	-

Note. SIAS = Social Interaction Anxiety Scale; FCS-For Others = Fears of Expressing Compassion for Others - subscale of the Fears of Compassion Scale; FCS-From Others = Fears of Receveing Compassion From Others subscale of the Fears of Compassion Scale; FCS-For Self = Fears of Compassion for Self subscale of the Fears of Compassion Scale; PTGI = Posttraumatic Growth Inventory; IES-R = Impact of Event Scale-Revised. *p < .05; **p < .01

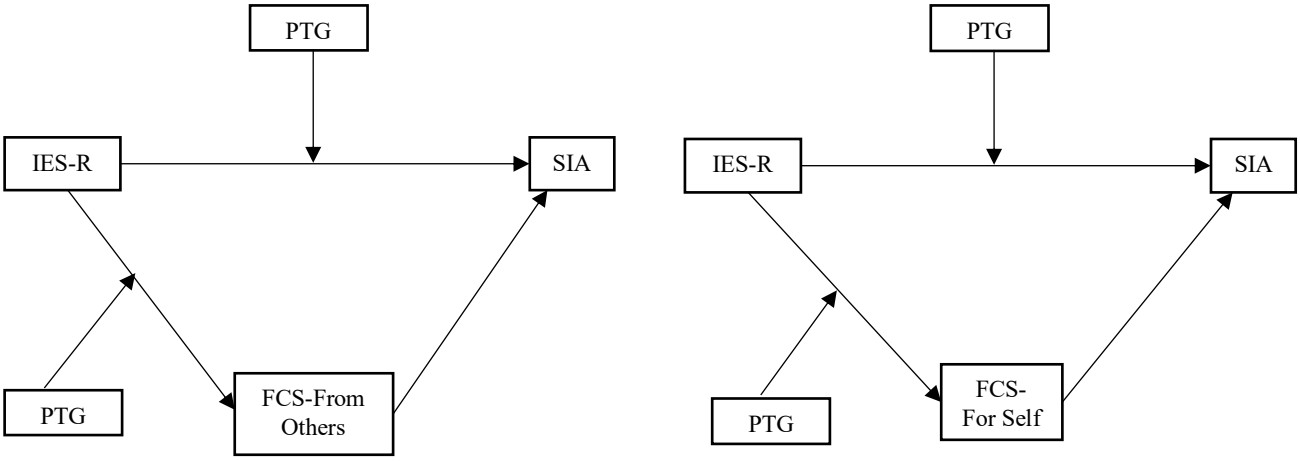

Figure 5. *Conceptual diagram of the moderation mediation model for both samples with separate fears of compassion (model 8)*

Moderated Mediation Analyses for the student sample

The moderating role of posttraumatic growth in the association between the memories of the traumatic impact of early shame experiences and social anxiety mediated by fears of receiving compassion from others.

A moderated mediation model was estimated to examine whether the memories of the traumatic impact of early shame experiences during childhood and adolescence was associated with social anxiety through fears of receveing compassion from others and whether this direct and indirect effect was moderated by posttraumatic growth (Figure 5). The moderated mediation analyses revealed the absence of a significant interaction in the path from memories of the traumatic impact of early shame experiences to fears of receiving compassion from others. Consequently, the effect of the moderator was removed, and the model was re-estimated (model 5 in Hayes, 2018). As presented in Figure 6, the memories of the traumatic impact of early shame experiences was significant to explain the variance of fears of receveing compassion from others, explaining 26.55% of its variance. Furthermore, the memories of the traumatic impact of early shame experiences and fears of receveing compassion from others were positively and significantly associated with SA. Posttraumatic growth was negatively and significantly associated with SA. All the variables explained 44.90% of SA variance.

As presented in Table 3, there was a significant direct effect of the memories of the traumatic impact of early shame experiences on SA, in low and medium levels of PTG but not in high levels, in which the memories of the traumatic impact of early shame experiences no longer had an impact on SA.

Table 3.

Summary of the direct effects for the student sample.

Direct Effects	***b***	***SE***	***t***	***p***	***95 % Cis***
Traumatic Shame Memories > Social Anxiety (low levels of Posttraumatic Growth)	.25	.05	4.72	< .001	.15/.36
Traumatic Shame Memories > Social Anxiety (medium levels of Posttraumatic Growth)	.17	.04	4.12	< .001	.09/.25
Traumatic Shame Memories > Social Anxiety (high levels of Posttraumatic Growth)	.04	.06	.70	.486	-.07/.15

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

In addition, there was a significant indirect effect of the memories of the traumatic impact of early shame experiences on SA through fears of receveing compassion from others, as shown in Table 4.

Table 4.

Summary of the indirect effects for the student sample.

Indirect Effects	**b**	**SE**	**95 % Cis**
Traumatic Shame Memories > Fears of Receveing Compassion > Social Anxiety	.23	.03	.17/.29

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval

Also, the interaction between memories of the traumatic impact of early shame experiences and posttraumatic growth on social anxiety was significant, indicating a moderation by posttraumatic growth, as presented in Table 5.

Table 5.

Summary of the interaction analyses for the model represented in Figure 5.

Interactions	***b***	***SE***	***t***	***p***	***95 % CIs***
Traumatic Shame Memories x Posttraumatic Growth (Social Anxiety)	-.004	.001	-2.84	.005	-.006/-.001

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

The results showed that memories of the traumatic impact of early shame experiences was significantly associated with social anxiety, presenting both a direct and an indirect effect through fears of receveing compassion from others. Furthermore, there was a moderating effect of posttraumatic

growth on the association between memories of the traumatic impact of early shame experiences and social anxiety.

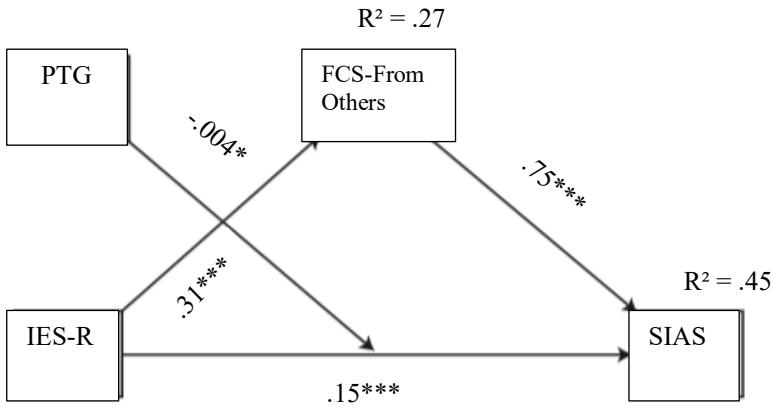

Figure 6. Statistical diagram of the moderated mediation model for the possible influence of the posttraumatic growth on the association between memories of the traumatic impact of early shame experiences on social anxiety. Path values represent non-standard regression coefficients. *p < .05; **p < .01; ***p < .001

The moderating role of posttraumatic growth in the association between the memories of the traumatic impact of early shame experiences and social anxiety mediated by fears of compassion for self.

A moderated mediation model was estimated to examine whether memories of the traumatic impact of early shame experiences during childhood and adolescence was associated with social anxiety through fears of compassion for self and whether this direct and indirect effect was moderated by posttraumatic growth (Figure 5). The moderated mediation analyses revealed the absence of a significant interaction in the path from memories of the traumatic impact of early shame experiences to fears of compassion for self. Consequently, the effect of the moderator was removed, and the model was re-estimated (model 5 in Hayes, 2018). As presented in Figure 7, memories of the traumatic impact of early shame experiences was significant to explain the variance of fears of compassion for self, explaining 17.26% of its variance. Furthermore, memories of the traumatic impact of early shame experiences and fears of compassion for self were positively and significantly associated with SA. On the contrary, the posttraumatic growth was negatively and significantly associated with SA. All the variables explained 31.54% of SA variance.

As presented in Table 6, there was a significant direct effect of memories of the traumatic impact of early shame experiences on SA, in all levels of PTG.

Table 6.

Summary of the direct effects.

Direct Effects	***b***	***SE***	***t***	***p***	***95 % Cis***
Traumatic Shame Memories > Social Anxiety (low levels of Posttraumatic Growth)	.36	.06	6.32	< .001	.25/.48
Traumatic Shame Memories > Social Anxiety (medium levels of Posttraumatic Growth)	.28	.04	6.30	< .001	.19/.37
Traumatic Shame Memories > Social Anxiety (high levels of Posttraumatic Growth)	.14	.06	2.25	.03	.02/.27

Note. B = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

Furthermore, there was a significant indirect effect of memories of the traumatic impact of early shame experiences on SA through fears of compassion for self, as shown in Table 7.

Table 7.

Summary of the indirect effects.

Indirect Effects	**b**	**SE**	**95 % Cis**
Traumatic Shame Memories > Fears of Compassion for Self > Social Anxiety	.11	.02	.08/.16

Note. B = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval

Moreover, the interaction between memories of the traumatic impact of early shame experiences and posttraumatic growth on social anxiety was significant, indicating a moderation by posttraumatic growth, as presented in Table 8.

Table 8.

Summary of the interaction analyses for the model represented in Figure 7.

Interactions	***b***	***SE***	***t***	***p***	***95 % CIs***
Traumatic Shame Memories x Posttraumatic Growth (Social Anxiety)	-.004	.001	-2.70	.007	-.006/-.001

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

In short, memories of the traumatic impact of early shame experiences had an effect on social anxiety, both direct and indirect through fears of compassion for self. Also, the results revealed a moderating effect of posttraumatic growth on the association between memories of the traumatic impact of early shame experiences and social anxiety.

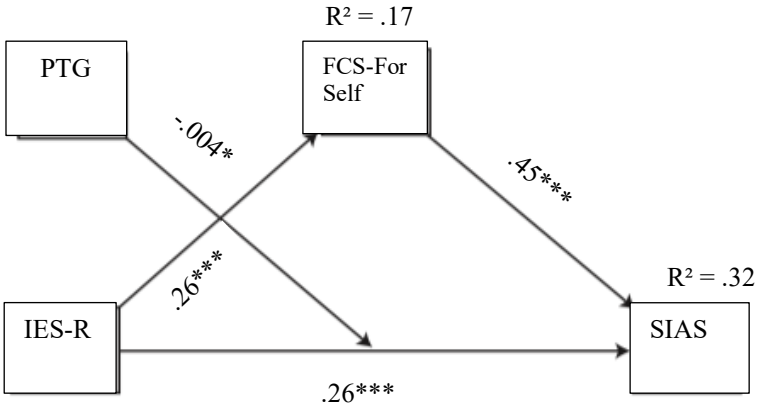

Figure 7. Statistical diagram of the moderated mediation model for the possible influence of the posttraumatic growth on the association between memories of the traumatic impact of early shame experiences on social anxiety. Path values represent non-standard regression coefficients. *p < .05; **p < .01; ***p < .001

Moderated Mediation Analyses for the non-student sample

The moderating role of posttraumatic growth in the association between memories of the traumatic impact of early shame experiences and social anxiety mediated by fears of receiving compassion from others.

A moderated mediation model was estimated to examine whether memories of the traumatic impact of early shame experiences during childhood and adolescence was associated with social anxiety through fears of receveing compassion from others and whether this direct and indirect effect was moderated by posttraumatic growth (Figure 5). The moderated mediation analyses revealed the absence of a significant interaction in all moderators. Consequently, the effect of the moderator was removed, and the model was re-estimated (model 4 in Hayes, 2018). As presented in the Figure 8, memories of the traumatic impact of early shame experiences was significant to explain the variance of fears of receveing compassion from others, explaining 16.95% of its variance. Furthermore, memories of the traumatic impact of early shame experiences and fears of receveing compassion from others were positively and significantly associated with SA, explaining 42.94% of the SA variance.

As presented in table 9, there was a positive and significant total effect of the memories of the traumatic impact of early shame experiences on SA that explained 23.89% of its variance.

Table 9.

Summary of the total effect for the model represented in Figure 5.

Total Effect	***b***	***SE***	***t***	***p***	***95 % CIs***
Traumatic Shame Memories > Social Anxiety	.36	.05	6.95	< .001	.26/.46

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

Furthermore, despite the indirect effect of the memories of the traumatic impact of early shame experiences on social anxiety through fears of receiving compassion (positive and significant), as presented in Table 10, the memories of the traumatic impact of early shame experiences maintained a direct positive and significant effect on social anxiety, as presented in Table 11.

Table 10.

Summary of the indirect effect.

Indirect Effect	**b**	**SE**	**95 % Cis**
Traumatic Shame Memories > Fears of Receiving Compassion > Social Anxiety	.14	.04	.08/.23

Note. B = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval

Table 11.

Summary of the direct effect.

Direct Effect	***b***	***SE***	***t***	***p***	***95 % Cis***
Traumatic Shame Memories > Social Anxiety	.21	.05	4.35	< .001	.12/.31

Note. B = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

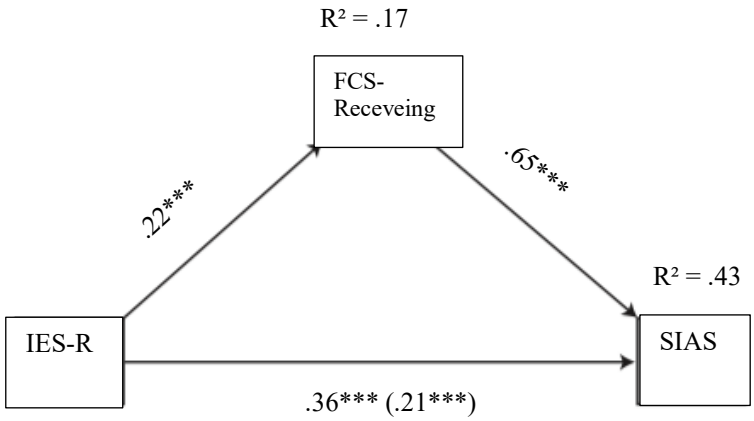

Figure 8. Statistical diagram of the mediation model for the possible influence of the fears of receveing compassion from others on the relationship between memories of the traumatic impact of early shame experiences and social anxiety. Path values represent non-standard regression coefficients. *p < .05; **p < .01; ***p < .001

The moderating role of posttraumatic growth in the association between memories of the traumatic impact of early shame experiences and social anxiety mediated by fears of compassion for self.

A moderated mediation model was estimated to examine whether memories of the traumatic impact of early shame experiences during childhood and adolescence was associated with social anxiety through fears of compassion for self, and whether this direct and indirect effect was moderated by posttraumatic growth (Figure 5). The moderated mediation analyses revealed that there was no significant interaction of the proposed moderator with the independent variable. Consequently, the effect of the moderator was removed, and the model was re-estimated (model 4 in Hayes, 2018). As presented in the Figure 9, memories of the traumatic impact of early shame experiences was significant to explain the variance of fears of compassion for self, explaining 16.59% of its variance. Furthermore, memories of the traumatic impact of early shame experiences and fears of compassion for self were positively and significantly associated with SA, explaining 44.16% of the its variance.

Table 12 presents the positive and significant total effect of memories of the traumatic impact of early shame experiences on SA that explained 23.89% of its variance.

Table 12.

Summary of the total effects for the model represented in Figure 5.

Total Effect	***b***	***SE***	***t***	***p***	***95 % CIs***
Traumatic Shame Memories > Social Anxiety	.36	.05	6.95	< .001	.26/.46

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

Table 13 and Table 14 represent the positive and significant indirect (through fears of compassion for self) and direct effects of the memories of the traumatic impact of early shame experiences on social anxiety, respectively.

Table 13.

Summary of the indirect effect.

Indirect Effect	**b**	**SE**	**95 % Cis**
Traumatic Shame Memories > Fears of Compassion for Self > Social Anxiety	.15	.04	.08/.22

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval

Table 14.

Summary of the direct effect.

Direct Effect	***b***	***SE***	***t***	***p***	***95 % Cis***
Traumatic Shame Memories > Social Anxiety	.21	.05	4.35	< .001	.11/.31

Note. b = unstandardized regression coefficient; SE = standard error; *p* = statistical significance; CI = confidence interval. *p < .05; **p < .01; ***p < .001

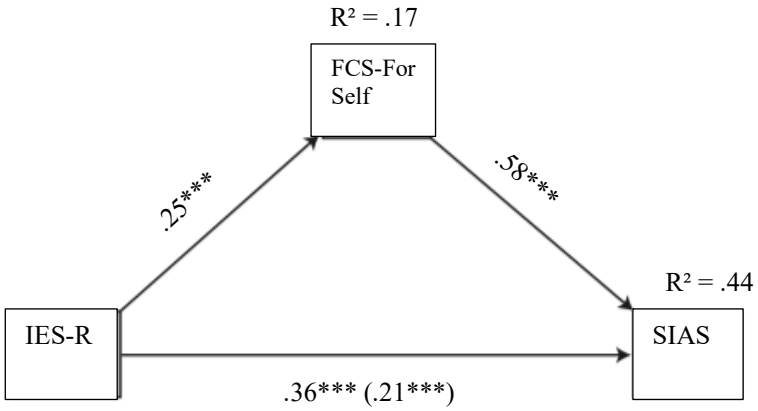

Figure 9. Statistical diagram of the mediation model for the possible influence of the fears of compassion for self on the relationship between memories of the traumatic impact of early shame experiences and social anxiety. Path values represent non-standard regression coefficients. *p < .05; **p < .01; ***p < .001

Discussion

The present study aimed to analyze in how memories of the traumatic impact of early shame experiences occurred in childhood and adolescence were related to psychopathology, such as social anxiety, and the possible mediating role of fears of compassion in this relationship. Furthermore, since posttraumatic growth is related to trauma such as illness and abuse (Canavarro, Silva & Moreira, 2015; Kuo et al., 2011), we proposed to study the impact of posttraumatic growth the in the variables mentioned above, particularly, its effect as a moderator in the relationship of memories of the traumatic impact of early shame experiences and social anxiety through fears of compassion (mediated moderation). There is literature that relates posttraumatic growth with a traumatic experience such as illness although there is no study that study all the variables mention above.

Since there were statistically significant differences between the samples with high values Cohen *d*'s for social anxiety, it was decided to treat the two samples gathered (university students and adults from the Portuguese population) separately.

As hypothesized (H1), in both samples, posttraumatic growth, social anxiety, fears of compassion and shame memories had positive and significant correlations with each other.

An experience that causes a bigger traumatic impact, stress and anxiety, is associated with a greater experience of posttraumatic growth, since, it is an incentive to change the way to face life (Calhoun, Cann, & Tedeschi, 2008; Janoff-Bulman, 2006; Tedeschi & Calhoun, 1995; Teixeira & Pereira, 2013). An event with a great impact and with traumatic characteristics could change fundamental issues, and with higher cognitive growth the more behavioral changes occur (Shakespeare-Finch & Barrington, 2013). In this sense, early experiences of shame, translated into memories with traumatic characteristics of intrusion, avoidance and hyperactivation are positively and significantly associated with posttraumatic growth. Morri and colleagues (2015) corroborated this results in which higher numbers of trauma predict a greater posttraumatic growth. We hypothesized that the same variable that instigates posttraumatic growth may cause social anxiety, an example of that is memories of the traumatic impact of early shame experiences, wherein associated to social anxiety disorder and its own traumatic impact, it may generate in individuals with this disorder higher levels of posttraumatic growth. A study of Canavarro and colleagues (2015) revealed that the higher impact on breast cancer patients who go through the process inherent to the disease, the more positive impact this has on their life, meaning more positive changes.

Shame memories that are traumatic present characteristics such as intrusion, avoidance and hyperarousal and are associated to psychopathology, social anxiety (Matos and Pinto-Gouveia, 2006; Weiss and Marmar, 1997). We hypothesized that early shame experiences occurred in childhood and adolescence become stored as traumatic memories and influence the individual's view of themselves, others and the world, which may generate dysfunctional schemes that may function as vulnerabilities to social anxiety. In addition, Hackmann, Clark, & McMannus (2000) study, presented that in individuals with social anxiety, negative self-images are seen as true images of the self, linked to early experiences of childhood trauma, being associated with higher levels of social anxiety.

Shame experiences can occur in interactions with significant others and can go from being criticized by a parent, bullied by peers, rejected by a lover etc. It is also linked to the experience of loss of abilities to create desirable images of oneself in the mind of the other so that others may reject, exclude or harm the self (Gilbert, 1998, 2007). Therefore, the variety of shame experiences experienced throughout live may engender a negative sense of self as seen by others and may lead to depreciative self-evaluations and feelings. Research has found that early shame experiences can be recorded in autobiographical memory as central emotional memories, shaping personal identity and becoming a reference point to give meaning to other events (Pinto-Gouveia & Matos, 2011). Consequently, early shame experiences occurred in childhood and adolescence may increase one’s proneness to experience fear, avoidance or grief when being the recipient of compassion. In fact, the reason is most likely because these shame experiences seem to activate and strengthen the threat affect regulation system by creating a sense of a threatened social self, where the individual is perceived as vulnerable, defective or weak,

and others are seen as critical, judgmental or emotionally unavailable. Thus, according to evidence from empirical research, for some individuals, self-generating compassion and receiving compassion from others are difficult, aversive or can be fearful of it (Gilbert et al., 2012; Gilbert, McEwan, Matos, & Rivis, 2011; Longe et al., 2010; Rockilff et al., 2008, 2011). This corroborates the positive and significant correlation between memories of the traumatic impact of early shame experiences occurred in childhood and adolescence and fears of compassion.

To best of our achowledge, the only study (Caiado & Salvador, 2019) that relates social anxiety and fears of compassion showed a significant and expected correlation between these variables. Results showed that fear of compassionate feelings (from other and from oneself) were predictors of social anxiety in adults. Some studies, also in adults, have pointed out that fears of compassion for the self and of receiving compassion from others, are linked to a range of psychopathological indicators, such as anxiety (Gilbert et al., 2011, 2012; Kirby et al., 2019; Matos et al., 2018). A few explanations for fears of compassion have been given, most of them related to the fear of not receiving affection or being rejected (Bowlby, 1969; Gilbert, 2010a; Gilbert & Procter, 2006) fear that compassionate efforts will be seen as incompetent or unhelpful (Gilbert et al., 2014; Kirby et al., 2019). Both these possible explanations are also related to the principal characteristic of social anxiety which is being negatively evaluated by others.

Given the absence of literature that related posttraumatic growth with social anxiety, and fears of compassion, we hypothesized, based on related studies, that posttraumatic growth would be positively related to social anxiety (and this hypothesis was confirmed in our study). This assumption would possibly be related to the fact that in order to develop posttraumatic growth there has to be trauma and when trauma is present the probability of developing psychopathology, including, social anxiety, will also increase.

It was also expected that the relationship between memories of the traumatic impact of early shame experiences occurred in childhood and adolescence and SA, would be mediated by fears of compassion (H2), which was verified in both samples. Analyzing the model under study it is observed that fears of compassion were significant mediators of social anxiety. Thus, we interpret that having experiences of shame in childhood and adolescence, transformed into traumatic memories, increases the probability of individuals developing social anxiety disorder, which is supported by the forthcoming studies. Wong & Rapee (2015) reported that experiences of shame in childhood and adolescence have been linked to traumatic memories of these experiences and to later psychopathology, namely to social anxiety disorder, especially if they are of social or relational nature (for example, discord marriage, emotional, sexual or physical abuse). Erwin et al. (2006) stated that, in fact, individuals with social anxiety present avoidance and hyperactivation as a consequence of adverse events, interfering in the processing of these events. A study of Matos and Pinto-Gouveia (2010) analyzed that the first experiences of shame reveal characteristics of traumatic memory and have an impact on shame feelings

in adulthood, and individuals whose first experiences of shame are associated with trauma phenomenology, tend to believe that others see them and judge them as inferior or inadequate.

Additionally, it was expected that the effect of memories of the traumatic impact of early shame experiences occurred in childhood and adolescence on SA would be moderated by PTG (H3). This hypothesis was only verified in the models of the student sample. In the non-student sample, the moderation was not confirmed. The moderation in the student sample was negative and significant for low and medium values of the moderator, only in the relationship between memories of the traumatic impact of early shame experiences and social anxiety. Therefore, to low and medium levels and to equals values of memories of the traumatic impact of early shame experiences, social anxiety decreases, which means that PTG as a moderator decreased the effect of memories of the traumatic impact of early shame experiences on social anxiety.

Finally, we hypothesized that in both samples the effect of memories of the traumatic impact of early shame experiences occurred in childhood and adolescence on fears of compassion would be moderated by posttraumatic growth (H4) however this hypothesis was not corroborated, meaning that the moderator has no influence in this relationship and leading to the elimination of this moderator from the original model and to the re-estimation of the model.

The results obtained in the students sample were replicated in the adult sample despite small differences in the variance explained and in the weight of the mediators on social anxiety.

Clinical Implications

The present study presents some clinical implications, essentially at the level of posttraumatic growth. At a clinical level, in individuals with social anxiety, it is important to verify if shame experiences in childhood or adolescence are likely to being stored in memory and having a traumatic impact on the individual's life. Then, it is also important to understand if these memories and their traumatic impact act as predisposing or even precipitating for the development of social anxiety. However, it is also essential to verify the role of fears of compassion in a clinical setting, since our study showed that even though memories of the traumatic impact of early shame experiences predicted social anxiety, fears of compassion mediated this relationship. In a therapeutic setting is important to work on the concept of posttraumatic growth as a positive change that may occur after an adverse experience, such as shame experiences. Individuals with social anxiety and that have had shame experiences with traumatic characteristics could be helped to identify possible positive sides of the experiences.

Limitations, Future directions, and Contributions

The present study has some limitations. Due to the fact that it was a cross-sectional study, results can only be interpreted as associations and not as predictions, which does not allow us to withdraw strong conclusions about the developmental impact of the variables under study. Also, the fact that it was not a longitudinal study does not allow us to guarantee that the course referred to in the discussion as evidenced in the two samples happens in the same subjects. Given these two limitations, it would be important to replicate the present study in a longitudinal design. Furthermore, we didn’t control the

shame experiences recalled by the subjects to be traumatic or not, since to make this comparison that we should have used a measure of traumatic experiences of shame, and a measure of experiences of shame without traumatic characteristics. Therefore, these results do not guarantee that it is necessary that the shame memories have traumatic characteristic to have an impact on social anxiety and in fears of compassion. Considering sample aspects, an important limitation refers to the fact that both samples were community samples and the reduced number of participants on the general population sample, leading to unsatisfactory reliability of the results. Another limitation has to do with of the fact that only self-report measures were used, which may compromise the reliability of the reports due to social desirability and mood influences. In alternative, a clinic interview should be used in future studies.

Despite these limitations, we consider that the present study is innovative, presenting relevant contributions on the memories of the traumatic impact of the early shame experiences, fears of compassion, social anxiety and posttraumatic growth in different phases of life.

Conclusions

Our study highlights the mediating role of fears of compassion on SA and the moderating role of posttraumatic growth. According to the evolutionary perspective, SA is a product of the defense/threat system and results from the fact that individuals deal with social situations in a competitive way (social rank) instead of in an affiliative way, perceiving social cues as threats (e.g. Gilbert & Trower, 2001; Trower & Gilbert, 1989) and fearing to have a bad performance which can result rejection and humiliation (Gilbert, 2001; Leary & Kowalski, 1995; Schlenker & Leary, 1982). This may have developed from early shame experiences, occurred in childhood and adolescence, developing the perception of the world as a dangerous place and the perception of existing in the mind of others as unwanted, inferior or weak (Matos & Pinto-Gouveia, 2010, 2014), this experiences may also increase one's proneness to experience fear, avoidance or grief when being the recipient of compassion, developing fears of compassion (Gilbert, 2009; Liotti, 2004; Matos, Pinto-Gouveia, & Duarte, 2015). On the contrary, there are factors that could influence the development of a positive change after an adverse event, Tedeschi and Calhoun (1995) called it posttraumatic growth. This variable has an important role on psychopathology especially as moderator in the relationship between memories of the traumatic impact of early shame experiences and social anxiety.

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