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Shame Memories and Depression Symptoms: The Role of Cognitive Fusion and Experiential Avoidance

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Abstract

Previous studies have suggested that shame memories can have a pervasive impact on depression symptoms, and avoidant-focused processes may play a mediating role. In addition, it is stated in Acceptance and Commitment Therapy (ACT) literature that experiential avoidance is a consequence of cognitive fusion. This study aims to explore the role of cognitive fusion and experiential avoidance in the relationship between shame memories (with caregivers and traumatic shame memories with others) and depression symptoms. In order to do that, we used Structural Equation Modeling to conduct a path analysis in a sample of 181 subjects of the general population. Our results add new information on the processes through which shame memories impacts on both experiential avoidance and depression symptoms. It is suggested that shame memories are not itself pervasive, but the entanglement with painful internal experiences (cognitive fusion) and/or the attempts to control them (experiential avoidance). This suggests the importance of planning an intervention that targets these processes when dealing with shame memories, particularly in patients with depression symptoms.
Key words: shame, cognitive fusion, avoidance, depression.

Novelty and Significance

What is already known about the topic?

- Previous research has suggested that the recall of shame experiences with others in childhood and adolescence is associated with the experience of depression symptoms.
- It has also been suggested that people who experience abusive and neglectful rearing experiences are more likely to engage in avoidant-focused strategies to self-regulate negative affect.

What this paper adds?

- This study suggests that shame memories *per se* are not pervasive, but rather being entangled with them and/or attempting to control them.
- This study suggests that experiential avoidance can be explained, at least partially, by cognitive fusion, as widely stated in ACT literature.

Shame has been described in literature as a self-conscious emotion with great evolutionary relevance (Gilbert, 2002) that can be elicited when we perceive our personal attributes or actions as unattractive, worthless and powerless (Lewis, 1992; Tangney, Wagner, & Gramzow, 1992; Gilbert, 1998, 2003), and consequently anticipating others' rejection and loss of social status (Gilbert, 2000; Gilbert, 2002). Shame has been suggested to have a defensive function to interpersonal threat (Gilbert, 1998; Gilbert & McGuire, 1998; Gilbert, 2002) and it is related with how we think we exist in the minds of others (Gilbert, 1998; Gilbert, 2000) in order to be chosen to develop social roles and establish sexual and alliance relationships (Gilbert & McGuire, 1998). Hence,

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shame can be conceptualized as a damage limitation strategy by sending social signals through a pattern of submissive and appeasement behaviors (e.g. head down, avoid eye gaze, hide and escape) which aim to de-escalate and/or avoid interpersonal conflict that could lead to social rejection or devaluation (Gilbert & McGuire, 1998; Gilbert, 2002).

Shame has been widely suggested to play an important role in developing and maintaining psychopathology (Lewis, 1992; Gilbert, 1998; Kaufman, 1989; Mills, 2005). Indeed, although feeling shame is an innate capacity (Gilbert & McGuire, 1998), there has been an increasing interest in research regarding the relation between the experience of shame and psychopathological symptoms (Gilbert, Allan, & Goss, 1996; Tangney & Dearing, 2002), particularly with eating disorders (Keith, Gillanders, & Simpson, 2009; Goss & Allan, 2009), social anxiety (Grabhorn, Stenner, Stangier, & Kaufhold, 2006), depression (Gilbert, 2000; Cheung, Gilbert, & Irons, 2004; Tangney *et al*., 1992; Andrews, Qian, & Valentine, 2002) and post-traumatic stress disorder (PTSD) symptoms (Robinaugh & McNally, 2010; Wekerle, Leung, Wall, MacMillan, Boyle, Trocme, & Waechter, 2009).

The quality of the relationship between a child and his/her caregiver has been stressed out as an important factor to understand adult psychopathology (Gilbert et al., 1996), and it is of general agreement that excessive proneness to feel shame is a result of negative self-representations that are internalized through early negative rearing experiences (Claesson & Sohlberg, 2002; Gilbert & Gerlsma, 1999; Kaufman, 1989). In fact, the repetitive shaming, put-down, devaluation and rejection can lead to the development of internal models of self as inferior, inadequate and vulnerable (Gilbert, 1998, 2003). Early shame and put-down experiences are even suggested to influence the cortisol response (Mills, Imm, Walling, & Weiler, 2008), the neurobiological functioning and maturation (Schore, 1998), and having a great impact on self-representation through the abilities acquired with the development of language (Thompson & Goodman, 2010).

Parent-child relationship is particularly important since children are, from an early age, highly sensitive to specific interpersonal signals that help regulating arousal and organize physiological systems (Gilbert, 2005). It has been suggested that when the rearing environment is characterized by an absence of warmth and safeness, and/or when threatening, shaming and put-down experiences are part of a child´s daily life, it is expected an under-stimulation of positive affect and warmth systems (Irons, Gilbert, Baldwin, Baccus, & Palmer, 2006), and/or an over-stimulation of the threat system (Gilbert, 2005). The experience of being ashamed, criticized, ignored or devaluated by the parents have a great influence in developing an internalized conceptual self as inferior, inadequate, vulnerable (Gilbert, 1998, 2003), worthless and unlovable (Claesson & Sohlberg, 2002; Gilbert *et al*., 1996; Gilbert & Gerlsma, 1999).

Although, of our knowledge, it has not been studied in great length the relation between early shame experiences with caregivers and depression symptoms, it has been suggested an association between being threaten, subordinated or rejected in childhood by caregivers and depression symptoms (Gilbert, Cheung, Grandfield, Campey, & Irons, 2003). More recently, it has been suggested that the recall of traumatic experiences of shame with caregivers in childhood and adolescence predict depression symptoms in adults (Matos, Pinto Gouveia, & Costa, 2011). It has also been suggested that the recall

of traumatic early shame experiences (not necessarily with caregivers) predict depression symptoms also in adolescents (Cunha, Matos, Faria & Zagalo, 2013).

It has been strongly established in literature the influence of rearing environment and parent-child relationship in child's socio-emotional development (Eisenberg, Cumberland, & Spinrad, 1998; Eisenberg, Losoya, Fabes, Guthrie, Reiser, Murphy, Shepard, Poulin, & Padgett, 2001; Valiente, Fabes, Eisenberg, & Spinrad, 2004; Eisenberg, Valiente, Morris, Fabes, Cumberland, Reiser, Gershoff, Shepard, & Losoya, 2003), formation of self-relevant believes (Gilbert *et al*., 1996; Gilbert, 1998, 2002, 2005) and emotional self-regulation skills (Gottman, Katz, & Hooven, 1996; Thompson & Goodman, 2010).

It is known and pointed out by research that abusive experiences during childhood can have a traumatic nature (Raes, Hermans, Williams, & Eelen, 2005; Wekerle *et al*., 2009) and influence proneness to feeling shame (Kim, Talbot, & Cicchetti, 2009). The general belief that early shame experiences can be an emotionally charged part of autobiographical memories (Lewis, 1992; Gilbert, 2002; Gilbert & Irons, 2005; Gilbert & Procter, 2006) suggested that these put-down experiences could also assume a traumatic nature. This assumption has been recently supported with results suggesting that early shame experiences may present traumatic-like characteristics (e.g. memory intrusion, avoidance and hyperarousal symptoms) (Matos & Pinto Gouveia, 2009; Matos, Pinto Gouveia, & Costa, 2011), and these characteristics may be positively correlated with depression (Matos *et al*., 2013; Cunha *et al*., 2013).

Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999) is one of the so called third generation of therapies, and it is based on a modern behavioral approach of language and human cognition called Relational Frame Theory (RFT; Barnes-Holmes, Barnes-Holmes, McHugh, & Hayes, 2004). Being rooted in the philosophical perspective of functional contextualism with behavioral analytic principles, according to RFT the human mind has the ability, not only to make arbitrary connections among stimuli, but also to use them in any context. These networks, or *relational frames*, allow us to learn indirectly by establishing bidirectional and derived relations among stimuli, and by transforming their functions (Fletcher & Hayes, 2005), which make it possible for us to experience perceptual functions of a given object, even when it's not actually present (Barnes-Holmes *et al*., 2004).

Although these abilities are evolutionary relevant and have led us to adapt in many hostile and dangerous environments, overcoming our physical disadvantage (Wilson & Murrell, 2004), according to ACT those are also the reasons why the psychological pain is ubiquitous: any aversive stimuli can be present by their verbal representation (Hayes *et al*., 1999).

One of the core psychological processes that arises from the ACT approach is *cognitive fusion*, and it is conceptualized as the inappropriate and excessive regulation of behavior by verbal processes (Hayes, Luoma, Bond, Masuda, & Lillis, 2006), being one indistinguishable of one's transient internal experiences (Orsilo, Roemer, & Holowka, 2005). In other words, cognitive fusion is the tendency to get caught up in the content of one´s evaluative and self-discriptive thoughts (Bond, Hayes, Baer, Carpenter, Guenole, Orcutt, Waltz, & Zettle, 2011), instead of using other sources of behavior regulation (Luoma, Hayes, & Walser, 2007). Since cognitive fusion has its foundation

in language development and its abilities, it is of great importance the role of rearing experiences with parents. Children are, for instance, encouraged by their parents to name their internal experiences (e.g. emotions) as a way of coaching emotional self-regulatory strategies (e.g. "say how you feel") (Thompson & Goodman, 2010), which strengthens the association between the experience itself and the word that represents it. Since the world can be mentally represented through language symbolic functions, rearing experiences will not only be represented as limitless evocable experiences, but also arbitrarily derive other functions. This excessive entanglement with the content of private events, rather than being present and noticing the ongoing psychological processes, usually leads to unproductive avoidance and efforts to control the experience (Greco, Lambert, & Baer, 2008).

As a predictable result, the entanglement with the verbal content leads to *experiential avoidance*, which has been operationalized as the unwillingness to be in contact with one's private experiences (e.g. bodily sensations, thoughts, emotions, behavior consequences) (Blackledge & Hayes, 2001; Hayes, 2004; Wilson & Murrell, 2004), and the efforts to deliberately control the form, frequency and context in which they occur (Hayes, 1994; Hayes *et al*., 1999), even when doing so can have harmful consequences (Hayes, Wilson, Gifford, Follete, & Strosahl, 1996). To engage in avoidant behavior is not itself pernicious, since it has an evolutionary adaptive function. However, experiential avoidance turns into a disordered process when it serves the purpose of rigidly and inflexibly controlling undesired internal events (Kashdan, Barrios, Forsyth, & Steger, 2006), pushing one away from valued life goals (Hayes *et al*., 1999).

As part of a social-verbal environment, we are culturally encouraged to engage in avoidant strategies (Hayes *et al*., 1996; Boulanger, Hayes, & Pistorello, 2010), to look at our internal experiences as "good" or "bad" and along with that we learn that we should somehow control them (Wilson & Murrell, 2004). In addition, experiential avoidance can be negatively reinforced, since it provides a short-term decreasing effect on unwanted emotional experience (Hayes *et al*., 1996). Paradoxically, the attempts to control and reduce aversive internal experiences are, not only futile, but also counterproductive, leading to an increase of these experiences (Hayes *et al*., 1996; Blackledge & Hayes, 2001), and making experiential avoidance highly resistant to change (Greco *et al*., 2008). These attempts to control private events can occur, for example, through thought suppression (Wenzlaff & Wegner, 2000), emotional suppression (Gross & Levenson, 1993) or avoidant coping (Penley, Tomaka, & Wiebe, 2002), which can be considered experiential avoidance strategies (Kashdan, Barrios, Forsyth, & Steger, 2006).

Thus, according to the ACT model, psychopathology results from the entanglement with internal experiences, such as the content of thoughts (i.e. cognitive fusion), that leads to the attempt to control or alter its form, frequency and context (i.e. experiential avoidance). As a consequence, emerges a decrease in the contact with the present moment, in behavior flexibility and in the likelihood of taking values-based actions (Blackledge & Hayes, 2001; Bond *et al*., 2011).

Although the role of cognitive fusion in the development and maintenance of psychopathology has been, of our knowledge, scarcely a target of empirical researches (perhaps due to the lack of a suitable measure), Zettle, Rains, and Hayes (2011) used

believability of thoughts as an indicator of cognitive fusion, and found that it mediated the effect of an ACT intervention with depression.

In addition, although it is suggests in ACT literature that experiential avoidance occurs as a consequence of cognitive fusion (e.g. Hayes, 1994; Hayes et al, 1996; Hayes *et al*., 1999), this relation has not been investigated. However, a recent study found that cognitive fusion and experiential avoidance were significantly associated (Gillanders, Bolderston, Bond, *et al*, 2014).

As to experiential avoidance, there has been a great number of studies suggesting an association between experiential avoidance and several psychopathological processes, such as cognitive suppression (Campbel-Sills, Barlow, Brown, & Hofmann, 2006; Gross, 1998; Feldner, Zvolensky, Eifert, & Spira, 2003), rumination (Cribb, Moulds, & Carter, 2006; Nolen-Hoeksema & Harrell, 2002; Giorgio, Sanflippo, Kleiman, Reilly, Bender, Wagner, Liu, & Alloy, 2010), with coping strategies and psychopathology in chronic pain (Costa & Pinto Gouveia, 2011), with maladaptive perfectionism and worry (Santanello & Gardner, 2007) and as a contributor in Borderline Personality Disorder symptoms severity (Iverson, Follette, Pistorello, & Fruzzetti, 2011).

It has also been recently studied the role of experiential avoidance in the relation between early experiences and several later outcomes. Research has suggested that individuals with a childhood history of abuse present heightened experiential avoidance (Batten, Follette, & Aban, 2002; Gratz, Bornovalova, Delany-Brumsey, Nick, & Lejuez, 2007) and tend to use avoidant coping strategies such as thought suppression (Krause, Mendelson, & Lynch, 2003). In addition, it has been recently suggested the role of experiential avoidance in developing and maintaining various PTSD symptoms (Kumpula, Orcutt, Bardeen, & Varkovitzky, 2011), and there has been a great deal of results pointing out to experiential avoidance mediating role, such as between abuse and later depression and PTSD symptoms (Merwin, Rosenthal, & Coffey, 2009), between adverse childhood experiences and obsessive-compulsive symptoms (Briggs & Price, 2009) and between traumatic events and PTSD symptoms (Orcutt, Pickett, & Pope, 2005). More recently, results have also suggested a mediating role of experiential avoidance strategies such as rumination, though suppression and dissociation between traumatic shaming experiences with others and later depressive symptoms (Matos *et al*., 2011).

The present study has three main goals. Firstly, we intend to study the relationship between memories of traumatic shame experiences throughout childhood and adolescence and its impact on present depressive symptoms. Based on the literature reviewed, we expect that shame memories with others (from childhood and adolescence) characterized as traumatic emotional memories can have an impact on the experience of depression symptoms. However, we also aim to clarify if the nature and frequency itself of shame memories at the hands of caregivers impact on depression symptoms, even when these memories don't present trauma-like characteristics (i.e., while we control de effect of traumatic memories of shame experiences). In this case, we expect that memories of shame experiences, even when they are not traumatic, impacts depression symptomatology.

In addition, this study sets out to explore the linkage between memories of shame experiences (including those that present traumatic-like characteristics), cognitive fusion and experiential avoidance, which, of our knowledge, has never been studied. We

propose that those individuals who remember experiencing shame, specifically those that become traumatic memories, are more entangled with their verbal and cognitive content and process (cognitive fusion), are more unwilling to experience their private transient events and deliberately try to control them (experiential avoidance).

Finally, we also sought to contribute for the clarification of the linkage between shame memories, cognitive fusion, experiential avoidance and depression symptoms. Since empirical research concerning cognitive fusion is, of our knowledge, scant, we intended to better understand the role of cognitive fusion in developing and maintaining depressive symptoms, and its linkage to experiential avoidance, since theoretical literature has suggested that experiential avoidance is a consequence of the entanglement with language related processes (e.g. Hayes, 1994; Hayes *et al*., 1996; Hayes *et al*., 1999). We propose the existence of a mediating effect of experiential avoidance and cognitive fusion on the relationship between shame memories, and depressive symptoms.

Since we are not aware of any study regarding gender differences in cognitive fusion and experiential avoidance, we had the additional goal of exploring these differences. Previous studies have suggested that gender differences in depression are related to cognitive processes such as rumination, being women more likely to ruminate than men (Hankin, Abramson, Moffitt, Silva, McGee, & Angell, 1998; Simonson, Mezulis, & Davis, 2011). In addition, rumination has been conceptualized as an avoidance strategy (Martell, Addis, & Jacobson, 2001) and associated with experiential avoidance (Cribb *et al*., 2006; Nolen-Hoeksema & Harrell, 2002; Giorgio *et al*., 2010), even in a non-clinical sample (Moulds, Kandris, Starr, & Wong, 2007). According to this, it is possible to consider and expect gender differences in experiencing cognitive fusion and experiential avoidance.

METHOD

Participants

The sample consists of 181 subjects of general population, 36.5% are male (*n*= 66) and 63.5% are female (*n*= 115). The mean age of men is 32.35 (*SD*= 9.29) and of women is 35.00 (*SD*= 9.90). The mean of participants' years of education was 13.27 (*SD*= 2.96).

In this sample, 37% of participants are single (*n*= 67), 61.7% are married or in a relationship (*n*= 106) and 3.9% (*n*= 8) are divorced. The recruitment of these participants was part of a larger study that aimed to study the processes through which shame memories impact on depression symptomatology.

The exclusion criteria was: (a) less 18 years and more 65 years; (b) student people; (c) subjects who reported difficulties that compromised the reading or understanding of questionnaire items; (d) incomplete fill of scales/missing index higher than 10% in each scale; and (e) clear evidence of compliance the instructions of responses.

Measures

Shame Experiences Scale. This scale consists of 15 questions to assess the experiences of shame in childhood and adolescence, i.e., the extent to which respondents felt humiliated, criticized, degraded and shamed by their parents, and how frequent those shame experiences occurred. More specifically, the items refer to retrospective memories of shame experiences with caregivers, in which participants state how frequent a given experience occurred with the mother and with the father, separately (ranging from 1= never true and 5= always true). The higher the score of the items (e.g. "When I used to do something wrong, my father/mother often reminded me of that", "my father/mother made me feel that I embarrassed them in public", "my father/mother used to compare my performance with other children's performance, making me feel weak and inferior"), the more frequent was that shame experience. The authors of the scale found a consistency of .93 for the father subscale and of .92 for the mother subscaleExploratory Factor Analysis supported a single-factor structure for father and mother versions. Results from Confirmatory Factor Analysis showed the goodness of fit of the model compose by 15-items (the same for father and mother's versions). Convergent and Divergent validity of the scale was analyzed in relation to other instruments widely known in literature and research, such as The Early Life Experiences Scale (ELES; Gilbert *et al*., 2003), The Childhood Experience of Care and Abuse Questionnaire (CECA.Q; Smith, Lam, Bifulco, & Checkley, 2002), Parental Bonding Instrument (PBI; Parker, Tuplin, & Brown, 1979), Family Expressivity Questionnaire (Halberstadt, 1986), Types of Positive Affect Scale (Gilbert, McEwan, Mitra, Franks, Richter, & Rockliff, 2008) and the Depression Anxiety Stress Scales-42 (DASS; Lovibond & Lovibond, 1995). Given the high correlation between the two sub-scales for parents (r= .69), and since our aim was not to investigate the separate influence of shame experiences with fathers and mothers, but rather to explore these experiences with parents as a global variable, we have chosen to consider a variable combination of parental experiences of shame. The internal consistency analysis yielded a cronbach's alpha of .95 for the total score on the parents.

The Impact of Event Scale-Revised (IES-R; *Impact of Event Scale,* Weiss & Marmar, 1997; Translated and adapted to Portuguese population by Matos, Pinto Gouveia, & Martins, 2011). The authors of the Portuguese version modified the instructions of the original version of the scale, requesting respondents to give their answers based on the impact that a memories of significant experience of shame in his childhood and adolescence had along the life. The modified Portuguese version had good psychometric properties and has been suggested to be a suitable measure for assessing memories of traumatic shame experiences throughout childhood and adolescence (e.g. Matos & Pinto Gouveia, 2009; Matos, Pinto Gouveia & Duarte, 2012; Matos *et al*., 2013). Taking into consideration the aims of our study, we decided to use this adaptation of the original scale. This scale contains 22 items, using a 5 points Lickert scale. In its original structure, the IES-R consists of three subscales (intrusion, avoidance and hyperactivation) spanning the three characteristics of traumatic symptoms associated with a particular experience. However, we used the total score of the scale as an overall measure of the traumatic nature of shame memories, since the Portuguese version revealed a one-dimensional structure with good psychometric properties (Matos *et al*., 2011). This version has already been used as a one-dimension structure in previous studies (e.g. Matos, et al., 2012; Matos *et al*., 2013). Higher results on this scale indicate a greater impact associated with the traumatic event. The Portuguese version of the scale found a value

of Cronbach's α= .96 for internal consistency (Matos *et al*., 2011). In our study, we found a similar internal consistency value of α=.95.

Acceptance and Action Questionnaire-II (AAQ-II; Bond *et al*., 2011; translation and adaptation by Pinto Gouveia, Gregorio, Dinis, & Xavier, 2012). Is a 7-item self-report measure of psychological inflexibility, which has been used to measure experiential avoidance. This instrument assesses tendencies to make negative evaluations of private events and the unwillingness to be in contact with private events (e.g. ''I'm afraid of my feelings", "my painful memories prevent me from having a fulfilling life"). Respondents analyze how each statement applies to them, using a 7-point Likert response format type (1= never true; 7= always true), and the total score is attained by summing the items. A higher result indicates higher levels of experiential avoidance. The original version has good psychometric qualities, including an internal consistency of α=.84 (Bond *et al*., 2011). The Portuguese version had an internal consistency of α= .89 (Pinto Gouveia *et al*., 2012). In our study, we achieved an internal consistency of α=.86.

Cognitive Fusion Questionnaire (CFQ; Gillanders, Bolderston, Bond, *et al*., 2014). This questionnaire consists of a previous 13-items version and is a unifactorial structure instrument that aim to assess the degree to which participants are entangled with the verbal representation of their internal experiences (e.g. entangled with the content of their thoughts). Participants should indicate how true are the 13 statements, from a Likert scale of 7 points, (1= never true; 7= always true) (e.g. "My thoughts cause me distress or emotional pain", "I struggle with my thoughts", "I tend to get very entangled in my thoughts"). The total score results from the sum of the items. The higher the score, the more one is entangled with the content of one's thoughts (i.e. cognitive fusion). In the original version the measure had an internal consistency of α= .85. In our study, we had an internal consistency of α= .84.

Depression, Anxiety and Stress Scale (DASS-42; Lovibond & Lovibond, 1995; translation and adaptation: Pais Ribeiro, Honrado, & Leal, 2004) is a 42 items self-report questionnaire designed to measure three dimensions of psychopathological symptoms: Depression, Anxiety and Stress. The items indicate negative emotional symptoms of which the respondents rate on a 4-point scale (0-3). For the purpose of our study, we only used the depression subscale. Total scores are calculated by summing the items on each scale. The highest the score, the more a subject experiences depression symptoms. In the original version, Lovibond and Lovibond (1995) found the subscales to have high internal consistency (depression subscale Cronbach's α= .91; anxiety subscale Cronbach's α= .84; stress subscale Cronbach's α= .90). The Portuguese adaptation has a Cronbach's alpha ranging from .83 to .93 (Pais Ribeiro *et al*., 2004). In the present study, we obtained an alpha of Cronbach α= .89 for the depression subscale.

Procedure

The protocol of this study contains five self-report measures and a participant´s information sheet, which included a brief explanation of the aims of the study, as well as a collection of demographic data.

A convenience sample was collected within the staff of public institutions (e.g. schools) and private corporations. The protocols were administered by the authors S.C. and C.E. to volunteers of the general non-student population. In line with the ethical requirements, it was emphasised that participants' cooperation was voluntary and that their answers were confidential and would only be used for the purpose of the study.

Results

Our mediation model (see Figure 1) was based on previous literature review regarding the relation between early negative experiences, psychopathological symptoms and core psychological processes such as cognitive fusion and experiential avoidance. Based on that, we propose a meditational model composed of two exogenous variables (the recall of early shame experiences with caregivers and the impact of early shame experiences with caregivers as perceived by the participants) and three endogenous variables (cognitive fusion, experiential avoidance and depression symptoms). In our model, both cognitive fusion and experiential avoidance act also as mediators. We decided to include both cognitive fusion and experiential avoidance in the same model in order to test the mediator effect of each one, while controlling concurrently the effect of the other in the relationships tests. We tested the effect of cognitive fusion and experiential avoidance in the relation between the recall of shame experiences with caregivers and the self-evaluated impact of early shame experiences and depression symptoms. Additionally, we tested the effect of cognitive fusion in the relation between both the recall of shame experiences with caregivers and traumatic shame memories in childhood and adolescence, and experiential avoidance. Lastly, we tested the effect that experiential avoidance has on the impact of cognitive fusion in depression symptoms.

In order to conduct the descriptive statistics, we used SPSS software (SPSS, Chicago Inc. v20). Results are presented in Table 1.

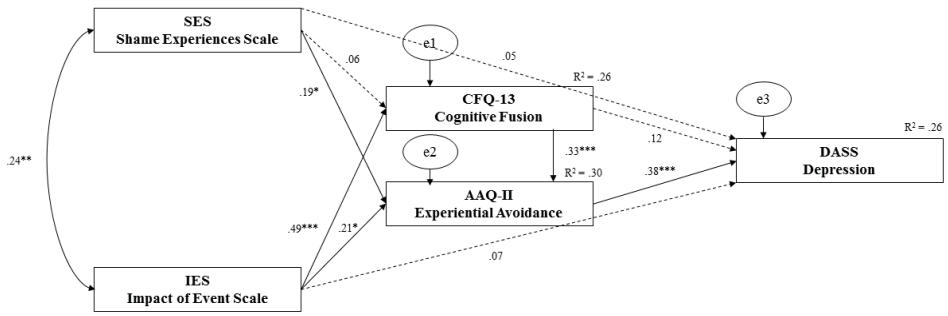

Figure 1. Initial Theoretical Model: the mediator effect of CFQ-13 and AAQ-II in the relation between SES and IES and DASS-Depression. Standardized path coefficients among variables are presented (*= p <.05; *** p <.001. Non-significant paths are dashed).

Table 1. Means, standard deviations, range of scores and correlations for all measured variables (*N*= 181).

	M	*SD*	Min-Max	1.	2.	3.	4.
1. SES	1.73	0.57	1.00-3.87	-	-	-	-
2. IES	1.36	0.75	0.00-3.05	.24**	-	-	-
3. CFQ-13	44.02	11.03	19.00-71.00	.18*	.51**	-	-
4. AAQ-II	18.63	7.20	7.00-45.00	.30**	.42**	.47**	-
5. DASS - Depression	5.55	5.21	0.00-23.00	.20**	.30**	.35**	.48**

Notes: * *p* <.05; ** *p* <.01; SES= Shame experiences scale; IES= Impact of event scale; CFQ-13= Cognitive Fusion Questionnaire; AAQ-II= Acceptance and Action questionnaire; DASS-depression= Depression Anxiety Stress Scale.

Gender differences were assessed through independent sample *t*-tests which showed no significantly differences between gender in age [$t(179)= -1.774$; $p= .078$] and years of education [$t(179)= -0.306$; $p= .760$]. There were also no significantly differences between men and women in marital status ($\chi^2= 5.955$; $p= .114$) and profession ($\chi^2= 1.066$; $p= .587$).

Regarding all variables in our study, there were no statistical differences between men and women in what concerns the mean scores of shame experiences with caregivers [$t(179)= 0.580$; $p= .563$], the impact of shame experiences in childhood and adolescence [$t(179)= -1.443$; $p= .151$] and experiential avoidance [$t(179)= -0.719$; $p= .473$]. However, results showed that men and women differ significantly in experiencing cognitive fusion [$t(179)= -2.487$; $p= .014$] and depression symptoms [$t(179)= -2.038$; $p= .043$]. In our sample, women presented more cognitive fusion ($M= 3.50$, $SD= .85$) than men ($M= 3.18$, $SD= .81$), and more depression symptoms ($M= 0.44$; $SD= .40$) than men ($M= 0.32$; $SD= .31$).

Since descriptive analysis showed statistically significant differences between men and women on cognitive fusion (predictive variable) and depression symptoms (dependent variable), we proceeded with a multi-group structural equation modeling in order to assess the invariance of our hypothesized (theoretical) model structure across gender. More specifically, this statistical procedure allows us to examine if presumed causal paths between variables (structural coefficients), co-variances and residuals structure remain invariant in both mutually exclusive groups (male and female) (Marôco, 2010). We assessed the invariance of the measured model in both groups (male and female) by comparing the unconstrained model (with structural paths, co-variances and free residuals) with a constrained model where structural paths, co-variances and residuals were fixed in both groups. Then, the model was examined using the χ^2 difference test between the less restrictive and the more restrictive models. A non-significant χ^2 difference was consistent with model invariance, which means that the parameters examined are equal across groups (Koufteros & Marcoulides, 2006).

Using χ^2 difference test, we examined if the structure of paths coefficients between men and women differ significantly. Since $\chi^2_{dif}= 10.729 < \chi^2= 11.07$, $p= .057$, the quality of the model fit is invariant between men and women, hence causal paths coefficients don't differ between men and women. Our results also show that both the co-variances [χ^2_{dif} $(3)= 3.419$; $p= .331$] and the residuals [χ^2_{dif} $(3)= 2.350$; $p= .503$] do not differ significantly across gender in our model.

Despite the statistical differences found when we compare the means of cognitive fusion and depression symptoms across genders, multi-group analysis results show that the model fit, co-variances and residuals do not differ significantly across gender. This means that if we test the mediation hypothesis for males and females separately, we would reach to the same conclusions as with a model of the total sample. For that reason, we proceeded with the mediation analysis with the total sample.

The strength of the cross-sectional association between all variables in study is depicted in table 1.

Results show that the recall of shame experiences with caregivers is positive and significantly correlated with the self-evaluated impact of shame experiences ($r= .24$, p

<.01). It also shows a positive and significant association between the recall of shame experiences with caregivers and cognitive fusion (r= .18, p <.05), experiential avoidance (r= .30, p <.01) and depression symptoms (r= .20, p <.01). Furthermore, results indicate a positive and significant association between the impact of shame experiences in childhood and adolescence and cognitive fusion (r= .51, p <.01), experiential avoidance (r= .42, p <.01) and depression symptoms (r= .30, p <.01). In addition, our results show also a positive and significant correlation between cognitive fusion and depression symptoms (r= .35, p <.01), between experiential avoidance and depression symptoms (r= .48, p <.01) and between cognitive fusion and experiential avoidance (r= .47, p <.01).

These results are in line with our hypotheses and with literature regarding the impact of shame experiences in the development of psychopathology (Gilbert *et al*., 1996; Claesson & Sohlberg, 2002; Gilbert & Gerlsma, 1999; Kaufman, 1989; Gilbert, 2005; Matos & Pinto Gouveia, 2009; Matos *et al*., 2011), but are also in line with a growing body of literature and research that suggests a relation between core psychological processes, such as cognitive fusion and experiential avoidance, and psychopathology (Hayes, 1994; Hayes *et al*., 1996; Hayes *et al*., 1999; Hayes, 2004; Bond *et al*., 2011; Orcutt *et al*., 2005; Iverson *et al*., 2011; Kumpula *et al*., 2011).

The estimation of the relations between the variables in our model was assessed with a form of structural equation modeling (SEM) called path analysis available on AMOS software (v.20, SPSS Inc. Chicago, IL), since it allows us to examine simultaneously the direct and indirect paths when there is prior hypotheses about them (e.g., Schumacker & Lomax, 2004). To estimate the hypothesised relations between the variables in study we used path analysis with *Maximum Likelihood* (ML) estimation. Using *Mahalanobis distance statistic*, data was assessed for multivariate outliers, and with a chi-square cut-off of p <.001 as the criteria for the presence of multivariate outliers (Kline, 2005). Although we have found some multivariate outliers, we have decided not to eliminate them from our sample, as has been proposed by some authors, since they represent possible observations within general population, thus providing us with results that can be generalized for the population in study (Hair, Anderson, Tatham, & Black, 1998).

Results from skewness and kurtosis coefficients showed that there was no severe violation of normal distribution [|Sk|<3 and |Ku|<8-10) (Kline, 2005); Ku_{mult}<10 (Kline, 1998)]. In addition, and assessed on SPSS, all variables showed acceptable values of multicollinearity (VIF< 5). The plausibility of the overall model was assessed on the basis of several goodness-of-fit measures, such as Chi-Square (χ^2), Normed Chi-Square (χ^2/d.f.), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and the Root-Mean Square Error of Approximation (RMSEA) with 90% confidence interval. According to Arbuckle (2008) guidelines, a value of Normed Chi-Square inferior to 5 is representative of an acceptable fit, inferior to 2 indicative of a good fit, and equal to 1 demonstrative of a perfect model fit. Additionally, Hu and Blentler (1999) guidelines for values indicative of a good-fitting model are CFI and TLI greater than .95 and a RMSEA less than or equal to .06.

Since all the possible paths (direct and indirect paths between predictive and criterion variables in the two mediations in study) were included, our initial model was a saturated model, therefore the model fit indices were not analysed and won't be reported.

Our results indicated that three of the paths included in our initial saturated model didn't achieve the critical values for them to be considered statistically significant, and by that reason were progressively removed. Namely, path analysis results indicated that the paths recall of shame experiences with caregivers → depression symptoms (b= .031; S.E.= .044; C.R.= .699; p= .485; β= .047), recall of shame experiences with caregivers → cognitive fusion (b= .091; S.E.= .098; C.R.= .930; p= .352; β= .061) and impact of shame experiences → depression symptoms (b= .036; S.E.= .038; C.R.= .945; p= .344; β= .073) didn't achieve the critical value of 1.96 for two-tailed statistical significance at the .05 level.

As a result, we ended up with a reduced ("trimmed") and more parsimonious model (see Figure 2) that was tested using the chi-square difference (χ^2_D) in order to assess the statistical significance of the decrement in overall fit with the elimination of the non-significant paths. Results showed that the fit of the two models were not significantly different, χ^2_D (3, N= 181)= 2.246, p= .523, and therefore our final and more simplified model is supported.

The goodness of fit indices indicate that our final reduced model has a very good fit: χ^2(3, N=181)= 2.246, p= .523, χ^2/d.f.= .749, CFI= 1.02, TLI= 1.00, RMSEA= .000 (90% CI= .000; .113), p= .687.

Since Bootstrap procedure is known to be one of the most valid and powerful methods for testing mediation effects (MacKinnon, Lockwood & Williams, 2004; Hayes, 2009), we used Bootstrap in our final (reduced) model, with a 2000 resamples, to create 95% bias-corrected confidence intervals around the standardised estimates of total, indirect and direct effects.

This procedure implies that, if there's not a zero between the lower and the upper bound of the 95% bias-corrected confidence interval, we can conclude that the effect is significantly different from zero (p < .05, two-tailed). It is suggested that the occurrence of a significant standardised indirect effect but not of the standardized direct effect is the strongest demonstration of the indirect effect existence (Kline, 2005).

Our final model explained 26% of cognitive fusion, 29% of experiential avoidance and 25% of depression symptoms in our sample.

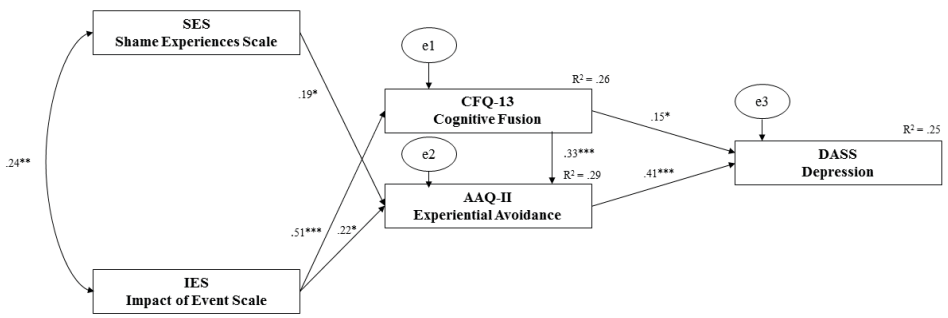

Figure 2. Final Mediational Model. Standardized path coefficients among variables are presented. All path coefficients are significant at the .05 level [χ^2(3, N= 181)=2.246, p= .523, χ^2/d.f.= .749, CFI= 1.02, TLI= 1.00, RMSEA= .000 (90% CI= .000; .113), p= .687].

Results from our final model indicate that experiential avoidance mediates the relation between the recall of early shame experiences with caregivers and depression symptoms [β= .077; 95% CI= .027; .137, p= .006], and between the perceived impact of early shame experiences with caregivers and depression symptoms [β= .089; 95% CI= .150; .330, p= .001]. Our results also show that the effect of perceived impact of early shame experiences with caregivers on depression symptoms occurs indirectly through cognitive fusion [β= .078; 95% CI= .150; .330, p= .001], and through a double mediation (perceived impact of shame experiences → cognitive fusion → experiential avoidance → depression symptoms) [β= .068; 95% CI= .150; .330, p= .001].

Additionally, we found evidence for an indirect effect between the perceived impact of early shame experiences and experiential avoidance through cognitive fusion, that is positive β= .165 and statistically significant based on the bootstrap 95% CI= .092; .253 for a p= .001. However because the standardized direct effect from perceived impact of early shame experiences on experiential avoidance is also statistically significant [β= .216 (95% CI= .074; .352) for a p= .004] we only can consider the existence of a partial mediation. The total effect, that represents the sum of the standardized direct effect with the standardized indirect effect was β= .381 (95% CI= .260; .504) for a p= .001. On opposite, we didn't found evidence for an indirect effect between recall of early shame experiences with caregivers and experiential avoidance through cognitive fusion. In fact, with respect to this, we only found a standardized direct effect from shame experiences on experiential avoidance [β= .187 (95% CI= .047; .320, for a p= .011]

Finally, results from our reduced model indicate that the standardized indirect effect between cognitive fusion and depression symptoms, that occurs through experiential avoidance is positive and statistically significant [β= .134; 95% CI= .054; .248; p= .001]. On the other side the standardized direct effect from cognitive fusion on depression symptoms was β= .153 (95% CI= -.005; .317) for a p= .056. In this case, because zero is included in CI, we can conclude that the direct effect found is not statistically significant. In this case, the total effect was β= .287 (95% CI= .153; .411) for a p= .001.

These results suggest that both the memories of shame experiences with caregivers and the traumatic nature of shame experiences with others (both in childhood and adolescence) impact on depression symptoms through experiential avoidance. In addition, it is also suggested that the effect of traumatic shame experiences (but not the nature and frequency of shame experiences with caregivers) on experiential avoidance partially occurs through cognitive fusion. Finally, our results seem to suggest that cognitive fusion impacts on depression symptoms, partially through experiential avoidance.

Discussion

It is of general agreement that early shame experiences with caregivers have an impact on later development of psychopathological symptoms (Shore, 1998; Gilbert, 2003), particularly depression (Gilbert *et al*., 2003; Gilbert & Gerlsma, 1999; Matos & Pinto Gouveia, 2009). In fact, previous studies have suggested that adverse and abusive rearing experiences predict psychopathological symptoms, such as depression (Merwin

et al., 2009) and PTSD symptoms (Orcutt *et al*., 2005). It has also been suggested that early adverse experiences with caregivers have a pervasive influence on emotional self-regulatory skills (Gottman *et al*., 1996; Thompson & Goodman, 2010), specifically the impact of childhood abuse on the development of experiential avoidance (Batten *et al*., 2002; Gratz *et al*., 2007; Krause *et al*., 2003). However, we are only aware of one study that addressed specifically the impact of shame memories on several avoidant-focused strategies, such as thought suppression, rumination and dissociation (Matos *et al*., 2013). In line with previous studies, and in accordance with our hypothesis, our results seem to suggest that people who have memories of being criticized, ashamed and put-down by their parents experience higher levels of experiential avoidance and depression symptoms. However, not only those shame experiences that were at the hands of caregivers are associated with experiential avoidance and depression, but also the ones that turned into traumatic shame memories (not necessarily with caregivers). So, our results seem to be in line with the general suggestion that shame rearing experiences have an impact by over-stimulating chopathological symptoms (Shore, 1998; Gilbert, 2003; Tangney *et al*., 1992), such as depression (Gilbert *et al*., 2003; Gilbert & Gerlsma, 1999). In addition, the association of shame memories with experiential avoidance is also in accordance with the traumatic nature of shame phenomenology, specifically the avoidance: When memories of prior shame experiences are present, they activate an emotional response that leads to the unwillingness of being in contact with these emotional experiences attached with shame memories. One possible way of making sense of this is through RFT underlined in ACT, i.e., the transference of emotional properties from one context to another through language (Blackledge & Hayes, 2001; Hayes & Wilson, 1993; Hayes *et al*., 1996).

Although the development of cognitive fusion has not been, of our knowledge, a target of empirical research, it is proposed in literature that cognitive fusion has its foundations in language development and its abilities, since it is a process of verbal entanglement (e.g. Hayes *et al*., 1999; Hayes *et al*., 2006). In addition, since it is through child and parent interactions that these language abilities are developed, we hypothesized that experiences of shame and put down, and particularly those that turned out to have a traumatic-like nature, would be associated with cognitive fusion. We found that individuals who report more memories of being ashamed, criticized and put-down by their parents, but also individuals who have more memories of shame with traumatic characteristics, are more entangled with the content of their thoughts (perhaps with the content of those memories). We think that this can be seen as a consequence of language characteristics: the function that these experiences had when occurred are transformed and encoded in these shame memories. It is possible that the properties of those early shame experiences with caregivers are brought to the present, leading to the entanglement with these memories.

It is widely suggested in ACT literature that cognitive fusion and experiential avoidance are two core processes in understanding psychopathology, and that these two processes of psychological inflexibility are related (Hayes *et al*., 1996; Hayes *et al*, 1999; Hayes *et al*. 1996). In fact, and in accordance with literature, our results suggest that people who are more entangled with the content of their thoughts (i.e. cognitive

fusion) are also more unwilling to be in contact with their internal experiences (e.g. thoughts, emotions, memories) and try to avoid them (i.e. experiential avoidance). As proposed in ACT literature, the entanglement with the content of private events, rather than being present and noticing the ongoing psychological processes, usually leads to unproductive avoidance and efforts to control the experience (e.g. Hayes *et al*., 1996; Greco *et al*., 2008).

Much like what have been proposed in ACT literature (Hayes *et al*., 1996; Hayes, *et al*, 1999; Hayes *et al*., 1996), our results also suggest that people who were more entangled with the content of their thoughts and more unwilling to be in contact their private events also experienced more depression symptoms. The association between cognitive fusion and depression symptoms can be explained by the inappropriate and excessive regulation of behavior by verbal processes (Hayes *et al*., 2006), leading to the inability to distinguish one from one's transitory experiences (Orsilo *et al*., 2005), and consequently to depression symptomatology. On the other side, the correlation between experiential avoidance and depression symptoms can be explained by the paradoxical effect of avoidance: Although it can lead to a short-term decrease of unpleasant internal experiences, it has long-term detrimental effects, such as emotional disorder and dysregulation (Hayes *et al*., 1999; Hayes *et al*., 1996).

Our main goal was to study the relationship between shame memories, cognitive fusion, experiential avoidance and depression symptoms. In order to do that, we built a meditational model, with both cognitive fusion and experiential avoidance as mediators.

Previous studies found that experiential avoidance play a mediating role in the relation between early negative experiences, such as abuse, and later psychopathological symptoms (Kumpula *et al*., 2011; Merwin *et al*., 2009; Briggs & Price, 2009; Orcutt *et al*., 2005). Our results are in accordance with these findings, and suggest that memories of shame experiences with traumatic characteristics, but also the nature and frequency itself of these shame experiences, impact on depression symptoms indirectly through experiential avoidance. This seems to suggest that those shame memories, even when assuming a traumatic nature, do not per se impact on depression symptoms, but rather the unwillingness to be in contact with unpleasant internal experiences (perhaps being in contact with the emotional properties associated with those shame memories) leads to the experience of depression symptoms. It appears that people who have memories of being ashamed, criticized and put-down by others (with or without traumatic-like characteristics) try to control, avoid or escape those memories as an affect regulation strategy, which seems to lead to depression symptoms. In fact, avoidant strategies as a way of regulating affect, such as thought suppression, has been suggested to have paradoxical effects, since they ironically lead to an increase of those experiences (Campbell-Sills *et al*., 2006; Wegner, Schneider, Carter, & White, 1987) and to emotional dysregulation (Hayes *et al*, 1999; Hayes *et al*., 1996).

Although it has not been robustly demonstrated that cognitive fusion is related with psychopathological symptoms, it is widely stated in ACT literature that psychological suffering is due to the entanglement with verbal processes (Hayes *et al*., 1996; Hayes *et al*., 1999). Our results are in line with this. However, one interesting result that is worth mentioning is that although shame memories (regardless of their traumatic

characteristics) predict experiential avoidance, our results seem to suggest that we only get entangled with the content of shame memories that have a traumatic nature. The results suggest that when shame experiences do not have a traumatic nature, cognitive fusion is not one of the processes mediating the impact of shame memories on depression symptomatology. However, people whose shame experiences turned to be traumatic are more likely to be more entangled with the content of their internal experiences (perhaps with the content of their shame memories), consequently leading to the experience of depression symptoms. This seems to suggest, as proposed in ACT literature, that it is not the internal experiences itself that are pervasive (in this case, the memories of shame experiences in childhood and adolescence), but rather the entanglement with them and/or the unwilling to have them and the attemps to avoid them (Hayes *et al*., 1996; Hayes *et al*, 1999).

ACT literature also states that, as a consequence of the excessive entanglement with private events (i.e., cognitive fusion), one tend to avoid and/or control the occurrence of those private experiences (i.e., experiential avoidance) (Blackledge & Hayes, 2001; Hayes, 2004; Wilson & Murrell, 2004; Hayes, 1994; Hayes *et al*., 1999; Hayes *et al*., 1996; Kashdan *et al*., 2006).

Our results are partially in accordance with this. Cognitive fusion did not mediate the impact that the nature and frequency itself of being shamed by caregivers have on experiential avoidance. One possible explanation is that this may result from a statistical artifact: since SES and IES are correlated in the path analysis, when SES is introduced in the meditational model its impact on CFQ disappears. However, this might also mean that shame memories have to present traumatic-like characteristics in order for cognitive fusion to mediate its impact on experiential avoidance. One way of looking at this is through the impact that shame experiences have on physiological systems (Schore, 1998), such as the defensive/threat systems. Perhaps the repetitive experience of being shamed, put-down and criticized can over-stimulate the defensive/threat systems, which become more easily activated (Gilbert, 2002, 2003, 2005; Irons *et al*., 2006), and lead to avoidant focused strategies. However, when shame experiences present traumatic-like characteristics it seems that one gets entangled with the content of one's thoughts, and consequently try to avoid having them. In addition, it is widely accepted that shame memories can lead to the internalization of the self as unworthy, inferior, unlovable and powerless (Lewis, 1992; Tangney *et al*., 1992; Gilbert, 1998, 2003), and that shame experiences can be recorded as central to one's life story and identity (Pinto Gouveia & Matos, 2010). Although it was not our goal to study self-related beliefs associated with shame, we think that our results can also be seen as a suggestion that when one has traumatic shame experiences, one gets entangled with a conceptual self as inferior, unworthy, powerless and unlovable (internalized through traumatic shame experiences in childhood and adolescence) and are unwilling to be in contact with the emotional properties that this entanglement produces. It is partially because one is entangled with the content and the properties of those traumatic shame memories that one tends to avoid internal experiences.

We also sought to test the relationship between cognitive fusion, experiential avoidance and depression symptoms, since ACT literature has soundly proposed that

the excessive and inappropriate regulation of behavior by verbal processes would lead to the unwillingness to be in contact with private experiences and consequently to psychopathology, through the paradoxical effects of experiential avoidance (Hayes, 2004; Hayes, 1994; Hayes *et al*., 1999; Hayes *et al*., 1996). In fact, our results suggest that cognitive fusion impact on depression symptoms indirectly through experiential avoidance. This seem to suggest that cognitive fusion does not have in itself a direct pervasive influence on depression symptoms, but rather the unwillingness to be in contact and the attempts to control private events with which one is entangled.

Finally, an additional goal of our study was to explore gender differences in cognitive fusion and experiential avoidance, since it has not been, of our knowledge, a target of empirical research. Although there were no statistically significant differences between genders in experiential avoidance, our results suggested that women were more entangled with the content of their thoughts (cognitive fusion), and experienced more depression symptoms than men, which is in line with results from rumination and depression studies and literature (see Nolen-Hoeksema, Wisco, & Lyubomirsky, 2008). The identification with gender roles and personality traits associated with each gender (i.e., independence, confidence and decisiveness in men, and sensitivity to others' needs and awareness of feelings in women) that are internalized through socialization (Benetti-McQuoid & Bursik, 2005) can give us some possible understanding of the differences obtained. Nevertheless, it is worth noting that these differences between men and women in experiencing cognitive fusion and depression were not responsible for the results of our mediation model, as was demonstrated with the multi-group analysis.

Some considerations have to be taken into account before drawing conclusions. First of all, we have to consider our sample size (N= 181). Although Structural Equation Modeling requires large sample sizes, some factors have to be considered in order to evaluate the influence of sample size on results. According to Kline (1998), a sample size between 100 and 200 is considered a medium one, and the ratio of the number of subjects to the number of model parameters should be 10:1. This ratio is attained in this sample (N= 181 for 15 model parameters). In addition, since our final model is relatively simple (a total of 15 parameters), the estimation of statistical effects in study shouldn´t be influenced by our sample size. Nevertheless, in order to draw stronger conclusions of the relation between variables, this study should be replicated with a larger sample.

The cross-sectional and correlational nature of the study should also be taken into consideration. In this sense, causal relations between variables cannot be established, only interpretations based on theoretical literature. Causal relations between variables should be analyzed within a longitudinal design.

In addition, participants responded self-report questionnaires and were asked to recall early experiences, thus one might claim that a possible selection of memories could have occurred. Perhaps a structural interview would allow a more accurate exploration of early shame experiences with caregivers. However, and regarding the use of retrospective reports, it is worth noting the suggestion that this type of methodology is reliable and not influenced by depressed mood (Brewin, Andrews, & Gotlib, 1993; Richter & Eisemann, 2000), and that the subjective interpretation of an event, rather than the event itself, is more important to the understanding of psychopathology (Castro, 2000).

Finally, since we used a general population sample, our results cannot be generalized to a clinical population. Future studies should replicate this research using a clinical sample in order to draw conclusions regarding the relations between variables here studied. Our results suggest the importance of taking into consideration processes such as cognitive fusion and experiential avoidance when working with patients with shame memories, and especially when these memories have a traumatic nature.

In a therapeutic context, our results emphasizes the importance of increasing cognitive defusion and a more accepting stance to one's private events (e.g. memories of being shames, criticized or put-down), as proposed by Hayes and colleagues (1996, 1999) on Acceptance and Commitment Therapy. This behavioral approach sees human psychological suffering as a consequence of language-related processes, such as transferring functions of one context to another (Blackledge & Hayes, 2001; Hayes & Wilson, 1993; Hayes *et al*., 1996). By suggesting that memories of shame experiences, even when having trauma-like characteristics, do not *per se* impact on depression symptoms, but rather the entanglement with internal experiences (which these memories are considered) and the unwillingness to be in contact with them, our results point out to the importance of altering the way one relates with one's internal experiences (e.g. thoughts, emotions, memories) and reducing the attempts to control internal experiences, such as memories of shame experiences in childhood and adolescence. Thus, an acceptance and/or mindfulness-based approach to dealing with patients with shame memories would be an appropriate way of reducing the entanglement with those memories and promoting an observing and accepting stance to their own experiences.

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