

## Research Article

# The Role of Shame and Traumatic Stress in Paranoia

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**Abstract**

Paranoia and persecutory delusions comprise the symptoms of established disorders such as schizophrenia in clinical populations. Paranoia is believed to exist on a continuum within the general population as well. There is limited research on the possible underpinnings of paranoia, but theoretical models of paranoia suggest that negative life events, trauma, negative views of the self and others, and emotional distress are important factors. Specifically, shame and traumatic life events/stress has been extensively entwined with the development of paranoid ideations among individuals. In this study, we explored the role of internal and external shame along with traumatic stress as it related to paranoia and emotional distress in a sample of ninety college students. Results showed that all variables were modestly correlated but further analysis showed that only external shame was related to the presence of paranoid ideation; internal shame was linked to anxiety and depression. Implications for the role of shame in paranoia are discussed.

**INTRODUCTION**

Paranoia and persecutory delusions are generally defined as false beliefs about being intentionally harmed, threatened, or mistreated by an individual, organization, or group and are typical symptoms of psychosis [1-3]. Paranoia is a symptom that exists on a continuum and is found in both clinical and non-clinical populations [4,5]. Paranoia is comprised of four underlying components: mistrust, ideas of reference, interpersonal sensitivity, and ideas of persecution (ongoing and intentional harm) which is arguably the most important component of paranoid ideation [6-8]. Paranoid ideation in the non-clinical population is often characterized as thoughts of exaggerated self-reference and a relatively stable tendency to exhibit concerns about social evaluation, rejection, and vulnerability to potential harm/mistreatment [2,9-13]. Persons with high levels of non-clinical paranoia show the same biases as clinical samples but in a weakened or attenuated form [10,14-16].

Paranoia is often associated with emotional distress (depression, anxiety) and can lead to fear, isolation, and social avoidance [17-19]. As paranoia increases in severity there are often elevated levels of emotional distress especially about social situations. The negative perception of social situations derives from a combination of factors including the deficits in understanding the emotions and intentions of others, the

presence of hostile attributions, excessive need for closure/jumping to conclusions, weakened sense of self, reasoning biases, and heightened anxiety that often converge for vulnerable persons [17,20-22]. Once paranoid ideation develops it is often resistant to any evidence presented on the contrary [23].

One of the most supported theories of paranoia comes from the threat anticipation model proposed by Freeman and colleagues [2,24]. The model is based on the idea that paranoid beliefs stem from trying to understand events, especially anomalous/ambiguous events that occur in the person's life. It reflects the multidimensional nature of the paranoid experience and highlights specific factors for the development, conviction, persistence, and distress of the paranoid content [2,22]. There is a clear role for negative life experiences as a stimulus for paranoid thoughts such as ambiguous situations, racism/discrimination, sleep deprivation, and substance use [20]. One less understood stressor is that of trauma and the subsequent emotional shame following the trauma in the development of paranoid ideation [25]. Trauma is considered a threat to the self and may be associated with paranoid ideation [2,14,26].

Within the last two decades, much work has been done to establish relationships between paranoia and emotional processes such as depression, anxiety, and self-esteem. [11,14,27,28]. Further work has begun to address how shame, trauma, emotional

memories, and paranoia are related [25,29-33]. Various emotions such as shame, guilt, and other self-conscious emotions have a very powerful effect on the development of the mindset of an individual especially when it comes to the perception of others [11,29,31]. Shame often stems from various negative interactions between the person and family and friends and may be a major contributing factor to a variety of psychopathologies, including alcoholism, depression, hostility, social anxiety, and personality disorders, especially narcissism [9,29,31-33].

Shame is an experience based on being judged or criticized by others and relates to how one understands their self-worth. Gilbert [27] reports, shame in the present day is regarded as one of the most powerful, painful, and potentially destructive experiences known to humans. It has the potential to guide our behavior, influence feelings about ourselves, and shape the sense of self-identity and level of social acceptability and desirability [31]. Shame thoughts arise because of the perception of oneself as defective, one who experiences ridicule or malevolent intents and has a need to hide [30]. There appear to be two types of shame present in the research- external and internal shame [31]. External shame is a belief that the person is perceived negatively by others (e.g., others think I am bad). Matos [33], explained that *"in external shame, our attention is focused on the minds of the other, our behavior might be orientated towards trying to influence our image in the minds of others by appeasing or displaying qualities we hope will find favor."* In contrast, internal shame is a belief that the person/self is bad, undesirable, weak, inadequate, or disgusting (e.g., I am bad or flawed; Matos et al., 2010) [31]. Oftentimes, shame arises from traumatic events and memories a person holds, and these have been linked to paranoid ideation later in life [28,33]. In the paranoia literature, the concept of "bad me paranoia" (e.g., Others see me as a bad and flawed person) is consistent with the role of shame and traumas within the paranoia literature, but this conceptualization does not include how external or internal shames affects these beliefs [14,26].

Carvalho et al. [9], have associated self-criticism and shame memories with paranoia stating that they both arise from the same mechanism and extrapolate to self, other relationships, and further help in the crystallization of dysfunctional interpersonal styles. A clear link has been established between trauma and psychosis mediated by negative beliefs about self and others in non-clinical populations [25]. Specifically, Pinto-Gouveia et al. [28], found that early traumatic memories predicted external shame with external shame mediating paranoia while internal shame was predictive of depression in a sample of community participants. A more recent study by Carvalho, Sousa, da Motta, & Cabral [9], on adolescent non-clinical populations showed children who recalled more early shame experiences showed higher levels of external shame and more self-criticism along with higher paranoid ideation. Other studies on adult non-clinical populations revealed a positive correlation between external shame and paranoid ideations [31-33]. In paranoia, the presence of shame and trauma may directly influence paranoid beliefs [28]. Studies on non-clinical populations revealed that internal shame and its aspects were mostly related to more intrinsic disorders

such as anxiety and depression whereas external shame from others is linked to paranoia and mistrust [28,31-33].

Based on the previous findings, it can be suggested that shame may play an important role in the formation of paranoid thoughts. Shame may develop from traumatic events which lead to problems with self-worth and mistrust of others. These memories in the non-clinical populations are often in the form of external shame where the individual tends to believe that others see them negatively as unattractive and undesirable in society based on their past history of traumatic events. It is these external shame memories which are more tied to paranoia ideation as compared to internal shame. The purpose of this study is to examine the role of both internal and external shame along with traumatic/stressful events on paranoia, depression, and anxiety in a non-clinical population. This research will help determine which type of shame (external vs. internal) is most related to paranoia and how the presence of traumatic/stressful events impact paranoid ideation. We hypothesize that the reporting of more traumatic/stressful events will be positively correlated with higher paranoia scores which is consistent with the role of negative environmental events in the formation of paranoid beliefs [2]. Also, we hypothesize that external shame will be positively correlated with paranoid ideation which reflects the view that others have negative perceptions of the person which activates threatening paranoid cognitions [2]. In contrast, internal shame will correlate positively with depression. Finally, we hypothesize that external shame and traumatic events will predict paranoid ideation above and beyond the influence of depression and anxiety (consistent with Pinto-Gouveia et al., 2014). This will provide additional and specific evidence of the unique contribution of shame and traumatic stress in paranoid ideation.

## MATERIALS AND METHOD

### Participants

Participants comprised a sample of ninety undergraduate students (age range 18 – 65;  $M = 22.63$ ;  $SD = 8.46$ ; 64.4% female; 61% White) at a large public university in the southern U.S (Table 1 for demographics). We recruited from a sample of undergraduate students as paranoia appears to exist on a continuum and many of the biases and deficits associated with paranoia can be found in non-clinical samples (see Combs et al., 2013 for an example). There were no group differences in

**Table 1:** Summary of Participant Demographics (N=90)

Variable	Summary Statistics
Mean Age (SD)	22.63 (8.46)
Mean Educational Level (SD)	13.2 (2.1)
Gender Female (%)	64.4 %
Ethnicity (%)	
Caucasian	61%
Latinx	16.7%
African American	11.1%
Asian / Pacific Islander	2.2%
Multiracial	2.2%

gender,  $t(89) = 1.4, p = .22$ , or ethnicity,  $X^2(90) = .923, p = .63$  on the primary measure of paranoia in the study.

## Measures

**Paranoia Scale:** The Paranoia Scale (PS) is a 20-item scale that measures non-clinical paranoid ideation found in normal individuals in response to everyday events and situations [12]. The PS is scored on a Likert scale ranging from 1 (*not at all*) to 5 (*extremely applicable*); scores range from 20-100. Higher scores reflect greater levels of non-clinical paranoia. The PS was developed for use in analogue samples and was not originally intended for clinical or diagnostic use, but the PS has demonstrated validity in persons with paranoid schizophrenia [15]. The scale has good psychometric properties and has been widely used in paranoia research [34-36]. In the present sample, the PS showed very good levels of internal consistency (Cronbach's Alpha = 0.827).

**Beck Depression Inventory-2:** The Beck Depression Inventory - 2 (BDI-2) is a 21-item scale that measures the severity of depressive symptoms [37]. The BDI-2 is rated on a Likert scale ranging from 0 (*Not Present*) to 3 (*Very Present*); scores range from 0 - 63. Higher scores reflect an increased severity of depressive symptoms. The BDI-2 has demonstrated good reliability and substantial convergent (with other measures of depression) and discriminant validity and has been widely used in research on depression [37]. The BDI scales have been shown to be related to the level of paranoid ideation in several studies [36,38]. In the present sample, the BDI-2 showed excellent levels of internal reliability (Cronbach's Alpha = 0.900).

**Fear of Negative Evaluation Scale (FNES):** The Fear of Negative Evaluation scale (FNES) is a 12-item scale that measures social anxiety and fear of criticism and negative evaluation (Leary, 1983). The FNES is rated on a Likert scale ranging from 1 (*Not at All*) to 5 (*Extremely*); scores range from 12 - 60. Higher scores reflect more social anxiety and fear of evaluation and criticism. The FNES has good psychometric and validity properties [39], and has been used in research on non-clinical paranoid ideation [36]. In the present sample, the FNES showed excellent levels of internal consistency (Cronbach's alpha = 0.911).

**The Other as Shamer Scale (OAS):** The Other As Shamer Scale (OAS) is an 18 item self-report scale that measures external shame (e.g. global judgments of how people think others view them [40]). Respondents indicate the frequency of shameful events on a Likert scale ranging from 0 (*Never*) to 4 (*Almost Always*); scores range from 0-72. Higher scores reflect greater levels of external shame. The OAS has good psychometric properties [41,31,33]. In the present sample, the OAS showed excellent levels of internal consistency (Cronbach's alpha = 0.930).

**Experience of Shame Scale:** The Experience of Shame Scale (ESS) is 25 item scale measuring three areas of internal shame [42]. The ESS measures shame across the domains of character, behavior, and body. The ESS is rated on a Likert scale ranging from 1 (*Not at All*) to 4 (*Very Much*); scores range from 25 to

100. Higher scores reflect more internal shame. The ESS has been shown to have good psychometric properties [42,31,33]. In the present sample, the ESS showed excellent levels of internal consistency (Cronbach's alpha = 0.947).

**Impact of Event Scale-Revised:** The Impact of Event Scale-Revised (IES-R) is 22 item self-report inventory that measures subjective stress from various traumatic life events from childhood and adolescence [43,44]. The IES-R is rated on a Likert Scale ranging from 0 (*Not at All*) to 4 (*Extremely*) and scores range from 0 to 88; higher scores reflect greater levels of perceived traumatic stress. The IES-R has been widely used in clinical research and has good psychometric properties [43,31,33]. In the present sample, the IES-R showed excellent levels of internal consistency (Cronbach's alpha = 0.932).

## Procedure

Informed consent from all participants was obtained. The study was approved by the UT -Tyler Institutional Review Board (Project # 2019-085). Participants completed a demographic form along with the various self-report scales mentioned above (PS, FNES, BDI-2, OAS, ESS, and IES-R). Completion time was 1.5 hours. Participants were offered extra credit for their psychology classes for participation in the study and signed up for the study using the online research platform, Sona Systems.

## RESULTS

The mean score on the Paranoia Scale was 42.9 ( $SD = 10.6$ ; range 20-68). A summary table of bivariate correlations is presented in Table 2 and as noted there were relationships among all of the variables. As expected, there was a significant positive correlation between perceived stress from traumatic events as measured by the IES-R and paranoid ideation ( $r = .49, p < .001$ , two-tailed,  $N = 90$ ). That is, the participants who reported more stress and negative traumatic events also endorsed higher levels of paranoid ideation. There were also significant positive correlations observed between the measures of internal and external shame with measures of emotional distress and paranoia. As predicted, external shame showed a strong positive correlation with paranoia ( $r = .69, p < .001, N = 90$ ) whereas internal shame showed a positive correlation with depression ( $r = .66, p < .001, N = 90$ ). Even though both measures of shame positively correlated with paranoia, there was a stronger relationship between paranoid symptoms and external shame ( $r$  to  $z = 1.7, p = .045$ ) compared to internal shame

**Table 2:** Summary of Bivariate Correlations ( $N = 90$ )

	BDI-2	PS	FNES	IES-R	OAS	ESS
BDI-2		.52*	.54*	.45*	.59*	.66*
PS			.40*	.49*	.69*	.58*
FNES				.42*	.64*	.56*
IES-R					.61*	.37*
OAS						.61*

Note. \* $p \leq .001$

BDI-2 = Beck Depression Inventory-2; PS = Paranoia Scale, FNES = Fear of Negative Evaluation Scale, IES-R = Impact of Events Scale-Revised; OAS = The Other as Shamer Scale; ESS = Experience of Shame Scale

based on correlation differences in magnitude. Anxiety showed the same pattern for that of paranoia (higher correlation with external shame), but there was a weaker relationship in terms of magnitude. Overall, these suggests relationships between paranoia, perceived stress from traumatic events, and external shame. Depression was more related to internal shame.

A linear hierarchical linear regression was conducted to examine the relationship between paranoia, external shame, and traumatic stress (Table 3). Predictor variables were the FNES, BDI-2, OAS, and IES-R. The dependent variable was the PS total score. It was predicted that external shame and traumatic stress would predict paranoia above and beyond the influence of depression and anxiety. Depression and anxiety were entered first as predictors in Model 1 and explained 27% of variance which was significant ( $F(2,88) = 18.05, p < .001$ ) with BDI-2 scores a significant predictor. Model 2, in which traumatic stress and external shame scores were added, explained significantly more variance ( $R^2$  change = .22,  $F(2,85) = 19.40, p < .001$ ) above that accounted for by depression and anxiety. The full model predicted 49% of variance in paranoia scores (adjusted  $R^2 = .49, F(4,85) = 22.53, p < .001$ ) and the OAS (measure of external shame) emerged as the only significant predictor of paranoid ideation when all variables were entered. It appears that level of external shame is an important predictor of non-clinical paranoid ideation and accounted for unique variance above traumatic stress, depression, and anxiety.

## DISCUSSION

This study explored the relationship between shame and perceived traumatic/stressful events and the development of paranoid ideation in a sample of undergraduate students reflecting the paranoid continuum. Previous research has suggested that shame along with traumatic/stressful memories have an influence on the cognitive and emotional processing in an individual and is further related to the development of psychopathologies such as depression, anxiety, and paranoia [31,45,28]. Within the paranoia literature there is support that negative life events and their emotional reactions can lead to greater levels of paranoid ideation [20]. Whether the perceived event is attributed to the self or others may have an important impact in the development of these emotional correlates. A study by Pinto-Gouveia et al. [28], found that early traumatic memories mediated external shame which was predictive of paranoid ideation while internal shame was predictive of depression and

our results are consistent with this study despite using different measures, samples, and procedures. In this study, we predicted that internal shame will be associated with depression and anxiety and external shame will be associated with paranoid ideation in non-clinical participants, thus reflecting the focus on others found in paranoia. Participants completed a variety of self-report questionnaires regarding paranoia, internal and external shame, the impact of traumatic/stressful events, depression, and anxiety.

The results supported the predicted hypotheses in this study. A positive significant correlation was found between the Impact of Event Scale-Revised scores and paranoia, which reflects the relationship between the presence and impact of traumatic/stressful memories and paranoia. These negative experiences such as abuse, neglect, and trauma can possibly lead the person to expect others to treat them negatively and foster paranoid thoughts. Also, there were robust relationships between the measures of internal and external shame with measures of paranoia, depression, and anxiety. Anxiety which is related to paranoia and threat showed a positive relationship for both external and internal shame. Specifically, internal shame was more related to depression as predicted. As a follow up to the correlations, we conducted a regression analysis to determine which if any variables were predictive of paranoia and our prediction that both traumatic stress and external shame would predict paranoia were partially supported. In the regression analysis, only external shame was a significant predictor of paranoia and accounted for significant variance above that of depression, anxiety, and the reporting of traumatic memories. These findings are consistent with other studies showing that external shame was related to paranoia [33]. Traumatic stress was not predictive of paranoia in the final regression which was contrary to our predictions. It is possible that internal shame can be a possible risk factor for the development of depression symptoms while external shame is a factor that could underly paranoid ideation.

Our findings have clinical importance and may contribute toward a better understanding of paranoia, anxiety, depression, and the role of shame and traumatic/stressful events. It has been theorized that negative life events and the reactions from others may foster paranoia, but this relationship has not been studied sufficiently [20]. Despite the use of a non-clinical sample, some clinical and therapeutic implications might be drawn from these findings which might be applicable to clinical samples. For example, addressing and probing possible traumatic/stressful events and external shame from others in treatment for individuals who express paranoid ideation may be beneficial. Understanding the root cause of paranoia may lead to better treatment outcomes [46-56].

There are a number of limitations to this study. First, the cross-sectional and correlational nature of the study leads to an inability to form causal conclusions from the data. The constructs in the study may overlap in terms of item content and symptoms such as external shame and paranoia (based on correlations)

**Table 3:** Hierarchical Linear Regression Results (N=90)

	Step 1	Step 2
<b>Model Information</b>	$R^2$ adjusted = .28	$R^2$ adjusted = .49
	$R^2$ change = .29**	$R^2$ change = .22**
<b>Predictor</b>	Beta	Beta
<b>FNES</b>	.17	.15
<b>BDI-2</b>	.37*	.16
<b>IES-R</b>		.05
<b>OAS</b>		.46**

Note. \*  $p \leq .01$ , \*\*  $p \leq .001$

BDI-2 = Beck Depression Inventory-2; FNES = Fear of Negative Evaluation Scale; IES-R = Impact of Events Scale-Revised; OAS = The Other as Shamer Scale



but there has been no clear research on how to effectively untangle these constructs to date. Future prospective studies should further clarify the causality and directions (possibility that paranoia leads to shame) of the relationships among these variables using longitudinal type data analyses. Second, the small sample size may limit the generalizability of the results. Although not present in the data, it is possible that the non-clinical nature of the sample along with demographic factors such as age, gender, and ethnicity may have affected the results as well. The use of college students in the study limits the generalizability of the study but previous research has found even non-clinical groups show similar biases and test scores with clinical samples, but this is still a concern. Further studies should be conducted on a community-based group, in a clinical population, or an at-risk population to draw similarities across participant samples.

In conclusion, the current study focused on the role of external and internal shame along with the impact of traumatic/stressful events with paranoia, depression, and anxiety. The results showed that the external shame (a focus on others) is related to paranoia whereas an internal shame focus (a focus on the self) is linked to depression. As we move forward in research on paranoia, we are developing a better understanding of the many factors involved in paranoia.

## AUTHOR NOTES

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