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Do patients with different mental disorders show specific aspects of shame?

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Alexandra Philipsen\textsuperscript{d} and Gitta A. Jacob\textsuperscript{a}

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Abstract
Shame is related to several mental disorders. We assume that facets of shame, namely bodily, cognitive and existential shame, may occur in typical patterns in mental and personality disorders. An excessive level of shame may lead to psychopathological symptoms. However, a lack of shame may also lead to distress, for instance as it may facilitate violation of social norms and thus may promote interpersonal problems. In this study we investigated facets of shame in females suffering from various mental disorders and personality disorders presumably associated with specific aspects of shame. Women suffering from borderline personality disorder (BPD, \( n = 92 \)), attention deficit hyperactivity disorder (ADHD, \( n = 86 \)), major depressive disorder (MDD, \( n = 17 \)), social anxiety disorder (SAD, \( n = 33 \)), and a community sample (COM, \( n = 290 \)) completed the SHAME questionnaire, which is a newly developed instrument to assess adaptive and maladaptive aspects of shame. BPD patients reported the highest level of existential shame compared to all other groups. Compared to the controls, SAD patients displayed stronger bodily and cognitive shame, and ADHD showed lower bodily shame. As assumed, specific aspects of shame were found in different patient groups. It may be important to specifically address these specific aspects of shame in psychotherapy.

Keywords: Borderline Personality Disorder, social anxiety, SHAME, self-conscious emotions, existential shame, major depression
1 Introduction

Shame is a very powerful self-conscious emotion, related to intense feelings of worthlessness, inferiority, and a damaged self-image, which is typically experienced after moral transgressions or incompetence (overview in de Hooge et al., 2010). Thus, shame serves the important social function of maintaining societal norms and protecting against group separation. Furthermore, the experience of shame can motivate individuals to engage in repairing behaviors in order to restore their damaged self or damaged relationships to others (de Hooge et al., 2010). Therefore shame seems to be adaptive in a number of situations – e.g. by leading to prosocial behavior – and accompanied with positive consequences for the individuals social life. However, strong feelings of shame are also associated with many psychopathological problems and may further exacerbate them (Tangney et al., 1996). Studies have found relationships between shame and various mental disorders, including borderline personality disorder (BPD), social anxiety disorder (SAD), and major depressive disorder (MDD; Dost and Yagmurlu, 2008). Shame connected to psychopathological symptoms of course is maladaptive which means it impairs one’s well-being and functioning.

Shame-proneness (trait-shame) or state shame have typically been conceptualized as unidimensional construct. According to the relevance for mental disorders in our work we focus on shame as a personality trait, i.e. an individual’s proneness or sensitivity to get ashamed in specific situations. However, in several theoretical models it has been assumed that shame is a multidimensional emotion. The findings showing both adaptive (e.g. Keltner and Harkner, 1998; Tangney et al., 2007) as well as maladaptive (e.g. Andrews, 1995; Tangney et al., 2007) functions of shame underpin this suggestion. Based on literature and interviews we developed the questionnaire Shame assessment for multifarious expressions of shame (SHAME, Scheel et al., 2013a) to assess both adaptive and maladaptive aspects of shame, assuming that both a lack of shame and increased shame might be dysfunctional. The SHAME was validated using a representative community sample (n= 506, Cronbach’s α=
0.83; factorial validity: $\chi^2/df = 2.44$, confirmatory fit index (CFI) = .920; for further information see Scheel et al., 2013). It consists of the three scales bodily, cognitive, and existential shame. While a moderate level of bodily and cognitive shame can be considered adaptive, existential shame is assumed to be dysfunctional. This assumption was supported by our findings in the community sample of mean values of $M = 2.76$ ($SD = 1.02$) for bodily and $M = 4.25$ ($SD = 1.09$) for cognitive shame representing the middle of the possible response scale from 1 to 6 which may interpreted as moderate level. Contrary the mean value for existential shame ($M = 1.71$, $SD = 1.00$) was quite low which may hint to the idea that this aspect of shame was sparse in a non-clinical population. Bodily shame contains shame concerning the body ideal, intimacy and sexuality. The body ideal covers someone’s figure, face, personal hygiene and clothing. Therefore bodily shame arises if the individual fails to meet her or his standards according to one’s body ideal; if body parts which are defined as intimate for the individual suddenly get disclosed in inappropriate ways or situations and, according to sexuality, after inadequate denudation of sexually relevant regions of the body (e.g.: I buy myself underwear. While I decide what to buy I notice that two of my colleagues have been watching while I made a selection).

Cognitive shame includes shame connected to the person’s moral standards, competence and social exclusion. It may arise after trespassing one’s personal or moral values. Cognitive shame also may also be evoked following the experience of being incompetent or being socially excluded (e.g.: I retell someone something private without considering the consequences.).

Existential shame differs from bodily and cognitive shame describing an enduring feeling of shame comprising someone’s person as a whole. It does not need to be evoked by specific situations and may be described by experiencing the own self as worthless, irrelevant or deficient (e.g. I get a card from a friend who is on holiday. On it he/she says they are really missing me.). This facet may often be a chronic feeling of being ashamed of who you are.
(Scheel et al., 2013a). Possibly existential shame could be understood as an enduring shameful mood.

As already mentioned, shame is related to several mental disorders, one of these is BPD. Clinically, BPD patients report intense feelings of shame, related to low self-esteem and self-hatred. This is reflected by the DSM-5 diagnostic criteria (APA, 2013) of emotional instability and identity disturbance. Accordingly, several studies have demonstrated higher levels of shame in patients with BPD as compared to healthy and clinical groups (e.g. Chan et al., 2005; Rüsch et al., 2007; Brown et al., 2009), both on an explicit and an implicit level of processing (Rüsch et al., 2007). Furthermore, shame has been linked to severe BPD symptoms such as dysregulation of anger (Lutwak et al., 2001; Gratz et al., 2010; Scheel et al., 2013b), hostility, irritability, long-term interpersonal problems (Tangney et al., 1996), suicidality (Lester, 1998), and self-injury (Brown et al., 2009). These findings go in line with previous results of an overall heightened shame proneness in BPD, but an especially increased level of existential shame as compared to the community sample (Scheel et al., 2013).

Anyway the question arises whether increased shame levels are similar in different mental disorders or whether several clinical groups differ with regard to their shame proneness in the different facets of shame. Another upcoming question was, if existential shame may be specific to BPD patients compared to other clinical samples.

Therefore in this study we compared different clinical groups with regard to their characteristic aspects of shame, as measured with the SHAME questionnaire. Five groups were included: (1) Women with BPD, (2) women with attention-deficit-hyperactivity disorder (ADHD), (3) women with SAD, (4) women with MDD, and (5) the community sample.

A sample of women suffering from ADHD was included, according to some clinical features such as affective vulnerability including extreme mood swings, stress intolerance, impulsivity and reported states of “aversive inner tension” that have been reported from both BPD and ADHD patients (Philipsen, 2006). Therefore a relevant overlap of symptoms seems
to be present in BPD and ADHD, whereas still there is a serious difference according to clinical appearance, severity of impairment and prognosis. Also high rates of comorbidity between BPD and ADHD are reported for childhood ADHD as well as for adult ADHD (Philipsen et al., 2008). As some of the overlapping symptoms such as impulsive reactions especially in interpersonal situations may be a source of shame, it seems to be of high interest if both groups are comparable due to their shame proneness or specific aspect of shame. Additionally, issues coming from consequences of ADHD (e.g. interpersonal problems) leading to impairments of daily life-demoralization, learned helplessness and low self-esteem (Wehmeyer et al., 2010) may also be connected to shame proneness. These findings may hint to an elevated shame level in the ADHD patients. Nonetheless ADHD has been linked to conduct disorder and high comorbidity to antisocial personality disorder (ASPD) is reported (Cumyn, et al., 2009; Holmes, et al., 2001). These disorders include transgressions and violations of other person’s rights and needs which may intend lowered level of shame. No studies have explored shame in ADHD, although ADHD in adulthood is a common and impairing condition (Kessler et al, 2006).

With regard to SAD, the fear of feeling ashamed in front of other people (e.g., failing in social interactions, being rejected) is a core DSM-5 diagnostic criteria (APA, 2013). Empirically, very high levels of external shame defined as cognitions of other people looking down on the self, have been observed in patients with SAD as compared to healthy controls and patients with psychosis (Michail and Birchwood, 2013) Shame is related to negative assumptions about anticipated social interactions which is a core feature of SAD (; Harder, 1992; Lutwak and Ferrari, 1997; Fergus et al., 2010, Tangney et al., 1992). Therefore investigating patients suffering from SAD with the SHAME seems to be of interest to find out more about the characteristics of different facets of shame in SAD.

Shame might also be related to MDD, even though depression may not be linked to shame as strong as in BPD or SAD. Several studies have found in patients with MDD the
level of shame to be associated with the level of depressive symptoms (e.g. Harder et al., 1992; Guimón et al., 2007; overview in Kim et al., 2011; Pinto-Gouveia et al., 2012). MDD is often reported to decrease self-esteem which may be attended by increased shame. Anyway it has to be mentioned that –even concerning only diagnostic criteria (DSM-5; APA, 2013) guilt has also been mentioned in relation to depression. Differences of shame and guilt have been addressed in further research with mostly bringing up shame as the more dysfunctional in contrast to guilt as the more functional emotion. (e.g. Dost and Yagmurlu, 2008; Joireman, 2004). On the other hand a meta-analytic review did underpin the findings of a relationship between shame and depressive symptoms but did also find two subtypes of guilt as equally important (Kim, et al., 2011). However, a study by Scheel and colleagues (2013b) did not find increased shame levels in MDD as compared to healthy controls.

The goal of this study was to assess if patients suffering from different mental disorders show different typical aspects of shame. This means to be the combination of different facets of shame –here described throughout bodily, cognitive and existential shame-adding up to an individual shame proneness. Primarily this study was exploratory in character. However, according to reported findings we hypothesized that BPD would be associated with increased levels of existential shame in particular, and that SAD would be associated with increased levels of cognitive but not existential shame, compared to the COM sample. With regard to ADHD and MDD, no specific hypothesis was expected.

2 Methods

2.1 Participants

Sex-related differences in shame (e.g. Woien et al., 2003) are well documented. Given that we had considerable difficulties in recruiting a sufficiently large number of men suffering from BPD, we decided to investigate disorder-related differences in female participants only.

Inclusion criteria for all participants were: (1) female and (2) fluent in German. The study was
approved by the local committee of the University of Freiburg and all participants signed informed consent.

2.1.1 Community sample
A representative sample of $n=290$ female participants was obtained via the registration office of Freiburg (cf., Scheel et al., 2013a). We refer to this sample as community sample (COM) rather than healthy controls, because these participants did not undergo a clinical interview. The level of psychopathological symptoms was assessed using the Brief Symptom Inventory (BSI, Derogatis and Melisaratos, 1983; German version: Franke, 2000; in this study Cronbach’s $\alpha=0.95$). The results suggest a sample representative of the normal population with $M=0.62$, $SD=0.49$ ($t(288)=10.82$) for the global severity index (GSI) according to Derogatis and Melisastros (1983), who suggested a t-value lower than 63 for non-clinical samples.

2.1.2 Clinical samples
All patients underwent structured clinical interviews for axis I and II disorders (SCID I, Spitzer et al., 1992; German version: Wittchen et al., 1997; SCID II; First et al., 1997; German version: Fydrich et al., 1997). Exclusion criteria for all clinical samples were: lifetime diagnosis of schizophrenia, bipolar I disorder, substance abuse or any cluster B personality disorder (except BPD in the BPD group). For each clinical sample, a co-morbid diagnosis of one of the other included disorders was excluded, for example for the BPD group a co-morbid diagnosis of current MDD, SAD or ADHD was excluded, the ADHD group had to be free of current MDD, SAD and BPD and so forth. The BPD group and the ADHD group were recruited at the Department of Psychology, University of Freiburg. The patients had to meet DSM-IV criteria (APA, 2000) for BPD respectively ADHD. The MDD sample was recruited in cooperation with the research group “Inpatient psychotherapy depression
research”, Department for Psychiatry and Psychotherapy, University Medical Center, Freiburg. The SAD group was recruited from the Department of Psychology, University of Giessen. Patients completed the questionnaires as part of their clinical assessment. Some data of the BPD and ADHD samples were included in other studies addressing different scientific concerns (Matthies et al., 2012; Svaldi et al., 2012a, 2012b; Scheel et al., 2013b). For demographic data of the groups see table 1.

- insert Table 1 here -

2.2 Instruments

2.2.1 Shame

Shame and its facets were assessed by the SHAME (Scheel et al., 2013a, Cronbach’s $\alpha = 0.86$), whose items describe 21 potentially shameful scenarios. Each of the three subscales bodily, cognitive and existential shame includes seven items.

Participants indicate how much they anticipate to feel ashamed on a 6-point Likert scale (1 = not at all, 6 = very strong). In the validation sample (representative community sample, $n = 506$), moderate levels for bodily ($M = 2.76$, $SD = 1.02$) and cognitive ($M = 4.25$, $SD = 1.09$) shame and low levels of existential shame ($M = 1.71$, $SD = 0.71$) were obtained. In the present study, internal consistency was found to be good in all samples (COM: Cronbach’s $\alpha = 0.85$; BPD: Cronbach’s $\alpha = 0.94$; ADHD: Cronbach’s $\alpha = 0.89$; MDD: Cronbach’s $\alpha = 0.91$; SAD: Cronbach’s $\alpha = 0.82$).

2.2.2 Other Instruments

Community sample. Participants completed the Brief Symptom Inventory (BSI; Derogatis and Melisaratos, 1983; German version: Franke, 2000) in order to assess the level of psychopathological symptoms. The BSI consists of nine subscales assessing different psychopathological symptoms which can be added up to a total score (Franke, 2000, Cronbach $\alpha = 0.92$). To assess overall psychopathological impairment the GSI was used.
Both patients with BPD and ADHD completed the Borderline Symptom List (BSL-23, Bohus et al., 2009). The BSL-23 is used to assess borderline typical symptoms and has good psychometric properties (Cronbach’s α = 0.94) and a high specificity for BPD. In light of the high comorbidity between BPD and ADHD (Philipsen et al., 2008), BPD patients’ score on the BSL-23 were compared to ADHD patients scores to check for overlapping symptoms. To assure separated groups BPD patients had to show significantly higher values in the BSL-23 than ADHD patients.

2.3 Data analysis
Data were checked for normality, linearity, outliers and homogeneity of variance. All analyses were corrected for alpha mistake accumulation using the software R (R Development Core Team, 2008) P-values were therefore corrected according to the number of comparisons that were calculated. Displayed p-values are corrected. Group differences with regard to age and SHAME total score were analyzed using one-way analysis of variance (ANOVA). According to significant group differences for age, a correlation for age and shame total score and the subscales was conducted. A t-test for independent samples was calculated to compare the BPS and ADHD sample with regard to BSL-score difference. In order to investigate group differences with regard to the three shame facets, a MANOVA was conducted. Significant univariate ANOVAs for the shame facets were followed up by post-hoc analyses concerning group differences. A p-value < .05 was considered as significant. Effect sizes (Cohen’s d) for the differences between groups are also provided.

3 Results

3.1 Demographic and clinical characteristics of the different samples
Significant differences for age occurred as shown by the significant group effect in the ANOVA, \( F(4,513) = 10.70, p \leq .001 \). Correlations between age and both the total SHAME score \( (r = 0.043, p = .329) \) as well as the subscales (bodily shame: \( r = 0.031, p = .488 \);
cognitive shame: \( r = 0.009, = .844; \) existential shame: \( r = 0.044, p = .318 \) were checked for the complete group \((n = 525)\) but did not reach significance. This variable was therefore not considered as a covariate in further tests.

BPD patients scored significantly higher than the ADHD patients on the BSL: BPD: \( M = 2.37 (SD = 1.27) \); ADHD: \( M = 1.55 (SD = 0.46) \) with \( t(114.44) = 5.90, p \leq .001 \).

3.2 Differences in shame between patient samples
Descriptives for the total SHAME score and the subscale scores for each group are displayed in table 2.

As revealed by the oneway ANOVA for the total SHAME score, groups differed significantly \((F(4,512) = 9.36, p \leq .001)\). Post-hoc tests supported significantly higher shame levels in the BPD \((p \leq 0.001)\) and SAD \((p = .001)\) groups as compared to the COM sample. Patients with ADHD endorsed significantly lower shame levels than the COM group \((p = .050)\), MDD patients did not significantly differ from the COM sample \((p = .464)\). The MANOVA with factor ‘group’ and the dependent variables bodily, cognitive and existential shame yielded a significant group effect \((F(12,1539) = 6.74, p \leq .001)\). Univariate ANOVAs revealed significant group differences with regard to all shame facets (bodily shame: \( F(4,509) = 11.00, p \leq .001 \), cognitive shame: \( F(4,509) = 5.96, p \leq .001 \), existential shame: \( F(4,509) = 9.50, p \leq .001 \). Post-hoc results and Cohen’s \( d \) for group differences are displayed in table 3.

- insert Table 2 here -

- insert Table 3 here -
Post-hoc analyses conducted higher values in the BPD group for the total score and all subscales compared to the ADHD and COM sample. The data supported the hypothesis of increased level of existential shame in BPD in particular given that BPD patients reported higher existential shame than each other group, whereas ADHD, MDD and SAD did not differ concerning existential shame. As hypothesized, SAD showed elevated cognitive shame as compared to all other groups. Additionally, the SAD group showed higher bodily shame as compared to ADHD and COM. ADHD patients displayed lower bodily shame than each other group. No further results were found for the MDD sample.

4 Discussion

Shame is a clinically relevant emotion in several mental disorders (e.g. Chan et al., 2005; Rüsch et al., 2007; Brown et al., 2009; Matos et al., 2012b). We proposed that BPD, SAD, MDD and ADHD are associated with specific aspects of shame. As expected, BPD patients endorsed significantly higher levels of all shame facets as compared to the COM sample. Patients with SAD reported significantly higher levels of cognitive and bodily shame compared to COM, whereas bodily shame was lower in ADHD patients compared to COM. MDD patients did not show any specific aspects of shame compared to COM. BPD patients differed not only in comparison to COM, they also reported significantly greater existential shame in comparison to all other clinical groups. In contrast, SAD, MDD and ADHD did not differ with regard to the total level of shame and all three facets of shame. Hence, an elevated level of maladaptive shame, in the SHAME measured as existential shame, is a unique clinical characteristic of BPD. Existential shame seems to be specific to BPD, which corresponds to findings of other studies reporting elevated shame levels in BPD (e.g. Rüsch et al., 2007; Scheel et al., 2013a; Scheel et al., 2013b) and clinical observations regarding the importance of shame in BPD (Brown et al., 2009; Gratz et al., 2010).
Our findings with regard to the SAD sample are interesting. It is known that shame and anxiety are often highly correlated (Li et al., 2005; Fergus et al., 2010). Women with SAD showed significantly higher levels of both cognitive and bodily shame. Cognitive shame, which is related to feelings of exclusion and incompetence, seems to play a particularly significant role as SAD patients endorsed the highest levels in comparison to all other groups. These results are consistent with previous observations of heightened shame in SAD (Matos et al., 2012a, Michail and Birchwood, 2013). While we had predicted increased cognitive shame in SAD, we did not have a priori hypotheses regarding heightened bodily shame. Such increased bodily shame is accounted for given that SAD is characterized by high self-consciousness and fear of being scrutinized and judged by others, which also applies to one’s physical appearance (Reilly and Rudd, 2009).

No significant differences between MDD and COM emerged. This may be influenced by the small sample size, as several authors found higher shame in MDD patients (Tangney et al., 1992; Kim et al., 2011). We found several medium effects for the MDD sample which may underpin the assumption that non-significant results are caused by the small sample size of this group. Our descriptive results also indicate slightly elevated bodily shame which would be in line with the findings of Andrews (1995). As the effect size for MDD was medium sized for existential shame it also hints to the necessity to replicate this study with a larger MDD sample. Referring to Beck (1975) MDD patients suffer from thoughts such as “I am a loser” which may indicate enhanced existential shame, but may also be caused by increased self-esteem.

Interestingly, the ADHD group primarily reported lowered bodily shame. Bodily shame describes shameful situations caused by intended or accidental permissiveness. Moderate shame reactions can usually be seen as functional in such situations and help to maintain socially acceptable limits (de Hooge et al., 2008). ADHD symptoms include poor impulse control, which may be related to a lack of shame response with regard to such
inappropriate behaviors (Barkley and Fischer, 2010; Matthies et al., 2011). Nonetheless, these findings are only preliminary and need replication as well as further exploration.

Several other mental disorders e.g. posttraumatic stress disorder (e.g. Andrews et al., 2000) other cluster B and C personality disorders (Schoenleber and Berenbaum, 2012) and eating disorders (Gee and Troop, 2003) also have been connected to shame. In further studies it would be interesting also to compare these groups according to their shame aspects. If it would be possible to identify typical shame profiles for several mental disorders this may help to understand the specific role of shame and to improve treatment approaches concerning the impact of shame.

4.1 Limitations

This study has several limitations. Given that only female participants were investigated, our findings cannot be generalized to men. However, with regard to bodily shame in particular, gender differences can be expected (e.g. Scheel et al., 2013a). Another limitation is the small sample size, especially with regard to the MDD sample. The tests might have been underpowered for the MDD sample as especially indicated by effect sizes comparable to other included samples with bigger n. Also it was not possible to compare psychopathology levels of the BSI, because it was not collected from every sample. This might have been of interest to get an impression of comparable psychopathological severity between the groups. Additionally we used a community sample as comparison group. It would have been a more conservative approach to recruit a diagnosed healthy controls sample which might have led to stronger findings. Additionally comorbidities of the clinical samples may interfere the results. Only exclusion and inclusion criteria were included in the analyses and no additional comorbidities. Furthermore, we did not rely on different shame constructs, nor did we assess guilt, hence limiting comparisons with previous studies. Finally, this is only a descriptive
study, thus no explanations as to why these differences actually occur can be drawn from our data.

4.2. Conclusions

In this study we wanted to investigate if different mental disorders show specific aspects of shame. In sum, our findings suggest that mental disorders may vary with regard to the overall level of shame and, more specifically, with regard to certain shame facets and therefore may be associated with specific shame aspects. These findings may be relevant for psychotherapy. High shame typically triggers avoidance behavior, which can be the case both in everyday life and in the therapeutic situation (Dorahy et al., 2012). According to the connection of several mental disorders to different distinct shame aspects, treatment should specifically target these different facets of shame (Gilbert and Procter, 2006). Existential shame may be the shame facet that is most important to be addressed in BPD, and at the same time the most challenging one. Especially due to BPD typical difficulties in interpersonal relationships understanding existential shame may help to deal with hostility or sudden withdrawal e.g. after expression of affection in daily life situations as well as in therapy.
References


Tables

Table 1

*Demographic data of the community sample and the clinical groups*

<table>
<thead>
<tr>
<th></th>
<th>COM (n= 290)</th>
<th>BPD (n= 92)</th>
<th>ADHD (n= 86)</th>
<th>MDD (n= 17)</th>
<th>SAD (n= 33)</th>
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<td>28.02 (7.45)</td>
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*Note:* Community sample (COM) represents the women of the validation sample. Clinical samples are specified as BPD for Borderline personality disorder, ADHD for attention deficit hyperactivity disorder, MDD major depression disorder and SAD for social anxiety disorder.
Table 2

**Descriptives for the SHAME for COM and the clinical samples**

<table>
<thead>
<tr>
<th></th>
<th>total score</th>
<th>bodily shame</th>
<th>cognitive shame</th>
<th>existential shame</th>
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</tr>
<tr>
<td>MDD</td>
<td>17</td>
<td>3.14</td>
<td>0.92</td>
<td>3.35</td>
</tr>
<tr>
<td>SAD</td>
<td>33</td>
<td>3.49</td>
<td>0.58</td>
<td>3.57</td>
</tr>
</tbody>
</table>

*Note: Community sample (COM) represents the women of the validation sample. Clinical samples are specified as BPD for Borderline personality disorder, ADHD for attention deficit hyperactivity disorder, MDD major depression disorder and SAD for social anxiety disorder.*
Table 3

Results of Posthoc analyses concerning group differences within SHAME total score and the subscales

<table>
<thead>
<tr>
<th>SHAME total score</th>
<th>bodily shame</th>
<th>cognitive shame</th>
<th>existential shame</th>
</tr>
</thead>
<tbody>
<tr>
<td>p</td>
<td>d</td>
<td>p</td>
<td>d</td>
</tr>
<tr>
<td>BPD</td>
<td>≤.001***</td>
<td>0.56</td>
<td>.001**</td>
</tr>
<tr>
<td>ADHD</td>
<td>.050*</td>
<td>0.27</td>
<td>≤.001***</td>
</tr>
<tr>
<td>MDD</td>
<td>.464</td>
<td>0.27</td>
<td>.184</td>
</tr>
<tr>
<td>SAD</td>
<td>.001**</td>
<td>0.75</td>
<td>.005**</td>
</tr>
</tbody>
</table>

| ADHD | ≤.001*** | 0.66 | ≤.001*** | 0.78 | .006** | 0.40 | ≤.001*** | 0.48 |
| BPD  | .147     | 0.28 | .818    | 0.05 | .195   | 0.32 | .046*   | 0.39 |
| SAD  | .752     | 0.05 | .519    | 0.11 | .028*  | 0.48 | .007**  | 0.43 |

| MDD   | .111     | 0.41 | .004**  | 0.82 | .786   | 0.07 | .833   | 0.06 |
| ADHD  | ≤.001***  | 0.59 | ≤.001*** | 1.04 | ≤.001*** | 0.90 | .861   | 0.04 |
| MDD | SAD | 0.134 | 0.50  | 0.521 | 0.21 | 0.008** | 0.83 | 0.946 | 0.03 |

*Note: Alpha mistake adjusted P-values and Cohen’s $d$ for posthoc test group comparisons for SHAME total score and each subscale. *$p$< .05, **$p$< .01, ***$p$<.001*
Highlights

- We introduce an instrument to measure adaptive and maladaptive shame
- We compare four clinical samples concerning their aspects of shame
- Different aspects of shame occur to be linked to different mental disorders
- BPD patients stand out with higher existential shame than any other group
- SAD patients stand out with highest cognitive shame levels