THE ROLE OF SHAME IN MENTAL DISORDERS

PhD Theses

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INTRODUCTION

Shame is an intense, negative self-conscious emotion involving feelings of inferiority, powerlessness, self-consciousness, and the desire to hide or disappear. The experience of shame is an adaptive and natural reaction until it becomes chronic and painful.

In order to measure shame, Andrews and her colleagues developed the 'Experience of Shame Scale' (ESS) which measures the frequency of shame experiences as a trait during lifetime. The ESS measures three areas of shame: characterological, behavioral and bodily shame.

Despite the extensive research on the ESS, we did not find any studies assessing the factor structure of the scale in clinical samples as compared to healthy controls. It is a further question whether the Hungarian version of ESS will have the same factor structure as the original English version.

Chronic, maladaptive shame seems to be the result of the synergistic effects of trauma-like early negative rearing experiences (such as abuse, trauma, neglect, abandonment, rejection, stigmatizing, shaming family interactions, criticism and/or harsh parenting styles) and temperamental characteristics, affecting the size of response to these experiences. Many studies have found significant associations between the level of shame

and sexual and physical abuse both in children and in adults, in addition it seems women report more shame experience than men, and shame fluctuates in different age groups and may decline from early adulthood. However, we did not find any research which investigated the association between shame and emotional abuse, and shame and temperament traits defined by Cloninger.

According to some previous studies shame is associated with several mental disorders, such as depression, anxiety disorders, eating disorders and personality disorders.

Although shame is not mentioned as criteria for the diagnosis of borderline personality disorder (BPD) in the Diagnostic Statistical Manual (DSM), there is an increase in the amount of empirical data that point to its central role in the manifestation of this disorder. Symptoms of BPD may be conceptualized as the expression of and defenses against or response to the painful emotion of shame.

For example, following Nathanson's compass of shame model, BPD symptoms could be conceptualized as reactions to the shameful experience: self-harm/suicide as an attack on self; stormy relationships and chronic anger/frequent angry acts as an attack on another; alcohol and drug abuse as withdrawal; and finally, chronic emptiness and dissociations as avoidance.

Moreover if the self's characterological, behavioral, and bodily characteristics are shamed identity disturbance may result. It seems, three domains of ESS measure relevant aspects of BPD psychopathology, but we did not find any study that compares the scores of BPD and healthy controls (HC) on the three domains of ESS.

Being ashamed as a result of social humiliation may lead to feelings of anxiety and anger, according to Paul Gilbert. Reactions to shame may depend on the recipients' perceived social rank, his/her cognitive self, and other representations. Persons perceiving themselves as inferior to others are more prone to have anxious reactions to social put-down. In contrast, individuals who perceive themselves as superior to others are more prone to have angry reactions to social put-down. We can measure these factors by Gilbert and Miles' Sensitivity to Social Put-Down Scale (SPD). It would be important to know which type of reaction BPD patients are more prone to in case of social put-down, comparing them to HCs and other patient groups.

In addition early shameful experiences may be recorded in one's autobiographical memory with an impact on the formation of early maladaptive schemas that are central to one's identity. Early maladaptive schemas (EMSs) are negative pervasive cognitive

representations, which are formed because of unsatisfied core emotional needs of attachment, autonomy, competence, sense of identity, ability to express valid needs and emotions, limit-setting capacity, and/or self-control. They develop during childhood or adolescence in abusive and rejecting family environments in which the expressions of core needs are regularly invalidated. EMSs are negative, internal, stable, uncontrollable, and global attributions and individuals who tend to make such attributions tend to be prone to shame. Although the results of previous research suggests that EMSs might be at the core of BPD and other first axis disorders, we did not find any previous researches which investigated the association between EMSs, factors of ESS and factors of SPD among patients with BPD.

OBJECTIVES

Based on the above facts and statements, the purpose of our first study was to examine the factor structure and item performance of the Hungarian version of ESS in the total sample, and also in the clinical and non-clinical samples separately by confirmatory factor analysis (CFA). The clinical and non-clinical samples were compared in order to analyze the measurement invariance of the

three factors on the dimensional, configural, metric, scalar and strict factorial levels respectively.

In addition we identified the covariates of the three shame factors. In order to do this we performed CFA with covariates analysis. Based on previous results of studies we have chosen the relevant covariates. The groups of covariates were entered into the model hierarchically; therefore 3 models with increasing number of covariates were tested.

Finally, in our first study we tested the temporal stability of the three shame factors, so we calculated their test-retest reliability over 2 weeks in a mixed sub-sample, and also in clinical and non-clinical samples separately.

In our second study we tested four hypotheses.

Our first hypothesis was that chronic shame and sensitivity to social put down is higher in persons with borderline personality disorder than in persons suffering from mental disorders without personality disorders, and it is higher in both groups than in a group of healthy persons.

In addition we investigated the associations between shame and BPD symptoms. Based on Linehan's theory and previous empirical results we hypothesized that chronic suicidality and self-injurious behavior would be associated with shame.

Our third hypothesis was that patients have a higher level of EMSs than HC and, among patients, BPD group has the highest level of EMSs.

Finally, we hypothesized that EMS domains would have specific associations with chronic shame dimensions and EMS domains would have specific associations with reactions to social put down.

METHODS

Both of our studies were conducted in the Department of Psychiatry and Psychotherapy at Semmelweis University in Budapest, Hungary. All subjects gave written informed consent to participate in the study prior to assessment. All subjects also gave permission to use their data for research purposes. Participation in the study was voluntary, with no compensation offered. The studies were approved by the Semmelweis University's Regional, Institutional Scientific and Research Ethics Committee.

In our first study the participants were 382 volunteers. The sample consisted of two subgroups: 148 inpatients and 148 age- and sex-matched healthy control persons participated in the item analysis and confirmatory factor analysis (CFA) study. Healthy control volunteers were recruited by university students and they were

acquaintances and relatives of university students with no known psychiatric disorders. In addition, 46 inpatients and 40 non-clinical control subjects participated in the test-retest reliability study.

The participants filled out the Experience of Shame Scale (ESS) to measure chronic shame, the Symptom Checklist-90-R (SCL-90-R) to measure mental state, the Early Trauma Inventory-Self Report (ETI-SR) to measure general, physical, emotional and sexual traumas, and finally the Temperament and Character Inventory-56 (TCI-56) to measure Harm Avoidance, Novelty Seeking, Reward Dependence and Persistence temperament dimensions.

In our first study we investigated the factor structure of the Hungarian version of ESS by using Confirmatory factor analysis (CFA) in a clinical and a matched healthy sample. In addition, we analyzed the associations between the three dimensions of chronic shame and different types of predictors, such as clinical status, age, gender, school years, abuse history, severity of clinical symptoms, and temperament dimensions by using CFA with covariates.

In our second study the participants were 160 volunteers. Fifty-six patients met the DSM-IV cirteria of BPD, and twenty-four

patients met the DSM-IV criteria of depression, anxiety disorders or eating disorders but without any personality disorders (Non-PD group). In addition eighty healthy comparison subjects were recruited from either the community or from the staff at the department.

The participants filled out the Experience of Shame Scale (ESS) to measure chronic shame, the Sensitivity to Social Put-Down Scale (SPD) to measure depressive or aggressive reactions to social put-down, the Young Schema Questionnaire – Short Form measure early maladaptive schemas and the Symptom Checklist-90-R (SCL-90-R) to measure mental state.

In our second study three groups (BPD patients, Non-PD patients and healthy controls – HC) were compared by Covariate Analysis of Variance (ANCOVA) where the dependent variables were factors of ESS, factors of SPD, and factors of EMSs. In addition we investigated the associations between factors of ESS and symptoms of BPD, then factors of ESS, factors of SPD and factors of EMSs by Pearson partial correlation while adjusting for the effect of age, gender, education. For multiple testing corrections, we used Benjamini–Hochberg procedure.

RESULTS

Shame, trauma, temperament and psychopathology: Construct validity of The Experience of Shame Scale

In our first study our main goal was to investigate the factor structure of the Hungarian version of ESS by using CFA. Our results show that the empirical model fits with Andrews' theoretical model ($\chi2 = 683.7$, df = 251, CFI = 0.978, TLI = 0.973, RMSEA = 0.077 [0.070-0.084]). In addition, the CFA's degree of fit was adequate both in the whole sample and in the clinical and the non-clinical samples (non-clinical sample: $\chi2 = 475.6$, df = 251, CFI = 0.957, TLI = 0.948, RMSEA = 0.078 [0.067-0.088]; clinical sample: $\chi2 = 474.1$, df = 251, CFI = 0.970, TLI = 0.964, RMSEA = 0.079 [0.068-0.089]).

In addition, our goal was to test the measurement invariance of ESS in clinical and non-clinical samples. Our results supported the configurable ($\chi2 = 949.7$, df = 502, CFI = 0.964, TLI = 0.957, RMSEA = 0.078 [0.071-0.086]) and metric ($\chi2 = 965.1$, df = 524, CFI = 0.965, TLI = 0.960, RMSEA = 0.076 [0.068-0.083]; $\Delta\chi2$=24.9, Δdf=22, p=0,301, ΔRMSEA=0.002, ΔCFI=0.001) invariances but not the scalar invariance.

Furthermore, we analyzed the associations between the three dimensions of chronic shame and different types of predictors.

The groups of covariates were entered into the model hierarchically; therefore 3 models with increasing number of covariates were tested. In the first step all three shame factors were positively associated with clinical status, therefore the clinical sample have higher scores in all shame factors. Age was associated negatively with all shame factors. Gender was associated only with bodily shame. Educational status was positively associated with characterological shame and behavioral shame. In the second step Global severity index (SCL-90-R GSI) was strongly linked with all three shame factors. Among abuse related indicators (ETI-SR), only frequency of emotional abuse was related to all three shame factors. In the third step, among Cloninger's temperament dimensions (TCI-56) only harm avoidance predicted significantly both characterological and behavioral shame.

Finally, according to our results the ESS has good test-retest reliability in Hungarian inpatients (r=0.78) and normal control samples (r=0.90), similarly to Andrews' results.

The study of relationships between factors of chronic shame, factors of sensitivity to social put-down and schema domains in borderline personality disorder

In our second study we used the GLM ANCOVA analysis and we found that persons with BPD score higher on each shame dimensions than HC and score higher than the non-PD group on characterological and bodily shame and non-PD group scores higher than HC on characterological and behavioral shame. On both anxiety/upset and angry/irritated reaction to social put downs scales, the BPD group had significantly higher score than the HC group but the difference between the BPD and the non-PD groups and between the non-PD and the HC groups were not significant. In addition, we tested the associations between BPD symptoms and factors of ESS by Pearson partial correlation. We found that BPD identity symptoms significantly correlated with characterological, behavioral and bodily shame respectively and there was also a significant correlation between stormy relationships and bodily shame.

Furthermore we conducted GLM ANCOVA analysis to test the EMSs scores in the three groups. According to our results patients with BPD had the highest score in all EMSs domains, followed

by patients without personality disorders and finally healthy participants had the lowest scores.

Finally, we tested the associations between EMSs, factors of ESS and factors of SPD. According to our main results in our three groups there were several very strong associations between the chronic feeling of shame and four EMS domains. In addition, entitlement-impaired limits domain was significantly associated with angry/irritated reaction to social put-down in each group.

CONCLUSIONS

Shame, trauma, temperament and psychopathology: Construct validity of The Experience of Shame Scale

In our first study our main goal was to investigate the factor structure of the Hungarian version of ESS by using CFA. Based on our results three important dimensions of shame can be separated and these three dimensions of shame are observed in Hungarian healthy and also clinical sample. These results point to that the three dimensions of shame measured by ESS are stable constructs that can be consistently found in a different language and in healthy and clinical samples as well.

In addition, our goal was to test the measurement invariance of ESS in clinical and non-clinical samples. Based on the invariance

analysis, we can conclude that CFA with covariates analyses could be performed appropriately with both clinical and non-clinical samples.

Furthermore, we analyzed the associations between the three dimensions of chronic shame and different types of predictors. Our main result is that among abuse related indicators, only frequency of emotional abuse was related to all three shame factors. Although previous studies found significant associations between shame and sexual and physical abuse, our results show that repeated criticism, humiliation, verbal abuse, invalidation may play a major role in the development of chronic shame. In addition, among Cloninger's temperament dimensions only harm avoidance was associated with characterological and behavioral shame. It means that people with cautious, tense, shy, pessimistic, apprehensively anxious, easily fearful and fatigable temperament are more prone to experience characterological and behavioral shame.

The study of relationships between factors of chronic shame, factors of sensitivity to social put-down and schema domains in borderline personality disorder

In our second study we tested the ESS and SPD scores in BPD, Non-PD and HC groups. Our finding is consistent with results of previous research in that the experience of shame is a core emotion in BPD and that shame is higher among patients with different types of mental disorders than among the healthy persons. In addition verbal attacks on a person's sense of identity, their attractiveness, competency or parentage seek to devalue the person in their own eyes and in the eyes of others. BPD patients are very sensitive to these kinds of social put downs and these criticisms provoke more intensive angry/irritated and also anxiety/upset reactions in them than in the HC group.

We tested the association between symptoms of BPD and factors of ESS. Our results did not confirm Linehan's theory and the results of the Brown and his colleagues' study that shame is specifically associated with chronic suicidality and self-injurious behavior. Our findings suggest that psychotherapy of BPD patients with identity disturbances and stormy relationships must focus on interventions that conquer shame and help to develop self-validation, self-acceptance and self-compassion.

In addition, we compared the EMSs scores in our three groups. Our results supported that EMSs may play a major role in self-representations of patients and especially in the BPD group.

Finally, EMSs domains are associated with a lot of shame factors, but the main result is that entitlement-impaired limits domain was significantly associated with angry/irritated reaction to social put-down in each group. It seems, the EMSs may influence the perception of the person's social-rank position and they may influence the reactions to social put-down.

In summary main results of our studies:

1. The Experience of Shame Scale is a reliable measurement of chronic shame and its three factors in Hungarian clinical and healthy control samples
2. Chronic shame is closely related to emotional abuse and Cloninger's temperament dimension of Harm Avoidance
3. Patients with borderline personality disorder have a high level of chronic shame and disturbance of identity as a BPD symptom has a close relationship with all the three shame factors
4. Early Maladaptive Schemas may influence the perception of position in the social rank therefore they may influence the maladaptive reactions to social put down.

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