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A Study on the Effect of Rumination on the Relationship Between Shame and Procrastination among Young Adults

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Abstract: Procrastination is a common problem that impairs functioning in the workplace, in the classroom, and in one's personal life. Understanding the psychological processes that shape behaviour requires investigating its relationship to self-conscious feelings like guilt and shame as well as cognitive styles like reflection and rumination. The deliberate postponement of activities in spite of expected negative consequences is known as procrastination. Guilt entails evaluating behaviour negatively and frequently spurs reparative activity. Shame is a reflection of seclusion and a poor assessment of oneself. Rumination is a repetitive, maladaptive emphasis on distress, whereas reflection refers to constructive self-examination. The aim of the current study was to study the effect of rumination on the relationship between shame and procrastination among young adults. Data were collected from 37 participants between the age of 18-25 years, using standardized self-report measures. The study employed a correlational research design with the help of standardized scales which were used to measure procrastination, shame and rumination. The findings revealed a modest relationship between guilt and shame negative self-evaluation, and a substantial correlation between guilt repair and guilt negative behaviour evaluation. The conceptual connection between rumination and reflection was highlighted by the positive correlation between the two. However, there was no significant correlation found between procrastination and reflection, rumination, guilt, or shame. These findings disprove the hypothesized impact of rumination and shame on procrastination while confirming the adaptive functioning of guilt. Longitudinal designs and larger, more varied samples should be used in future studies. In order to decrease procrastination, therapies should primarily concentrate on improving self-regulation techniques and encouraging adaptive guilt reactions.

Keywords: *Rumination, Shame, Procrastination, Young Adults*

1. Introduction

Winston Churchill once quoted “*I never worry about action, but only inaction,*” highlighting the immense effect of procrastination that exists in every human’s life. This study highlights the effect of procrastination on a person and how that person feels after procrastinating for too long. Dwelling on our own thoughts and actions, remembering and reflecting upon them, often makes us feel a lot of guilt and shame. An individual who pushes things to the last-minute ends up regretting it and reflecting upon it later which makes them feel ashamed of themselves. This can turn into a vicious cycle, making anyone feel exhausted both mentally and physically.

According to van Eerde and Klingsieck (2018), procrastination is a phenomenon that is particularly relevant in student populations, where it has been demonstrated to have detrimental effects on academic attainment (Kim and Seo 2015). Procrastination is a widespread problem with numerous detrimental effects. It’s not temporary and can cause serious problems to a person’s mental health. According to Steel (2007), around half of college students consistently put things off. Procrastination is associated with increased stress, anxiety, sadness, and worse academic results (Beswick et al. 1988; Flett et al. 2016). A study was conducted on a sample of 235 undergraduate students from a college in the northeast. The research was done to study whether shame and guilt uniquely predict greater procrastination and whether depressive rumination mediates those effects in a collegiate sample. Results reported that higher shame significantly correlated with brooding, guilt, reflective pondering and procrastination. Guilt was more associated with reflective pondering than any other variable. Additionally, higher brooding and reflective pondering correlated with more procrastination. Females reported higher shame and brooding and males reported more guilt (Oflazian and Borders, 2022).

Repetitive thoughts of unpleasant experiences and events, or rumination, prolong negative emotion and are predictive of a variety of unfavourable clinical consequences (Watkins, 2008). Researchers have hypothesized that rumination triggers avoidance coping behaviours, such as procrastination, due to its correlation with unpleasant affect (Constantin et al., 2018). Depressive rumination, or the propensity to dwell on the reasons, feelings, and effects of depressed emotions, has been the focus of particular research on this hypothesis (Nolen-Hoeksema et al., 2008). For example, college students who engage in depressed rumination are more likely to put off tasks (Flett et al., 2016). The effect of rumination on college students and young adults is pretty high and can seriously affect their mental health. In

an empirical study conducted by Leonardi et al. (2020) on 343 subjects, it was found that worry and rumination correlated with all types of interpersonal guilt. Also, worry and rumination were positively correlated with depression and anxiety disorders. Rumination was found to be a mediating factor between self-hate and depression, while worry was found to be a mediating factor in the relationship between omnipotence and trait anxiety. Thus, it is suggested that guilt and shame are a powerful component of mental health problems and that worry and rumination are the risk factors in maintenance of these disorders.

According to Gausel and Leach (2011), shame is a dysphoric emotion of remorseful self-criticism. It entails criticizing one's complete self, not just one's unsuccessful behaviour, and is linked to self-consciousness and inferiority complexes (Dryden, 2013; Watson & Clark, 1992). This rejection of one's entire identity includes assumptions of rejection and condemnation from others, as well as global and consistent attributions of one's own inadequacies (Gausel & Leach, 2011). High level of procrastination can increase shame in a person significantly by making them feel bad about what they haven't done and should have done. A study was conducted by Gutierrez et al. (2020) on a sample of 178 participants who were asked to write an essay on google docs. The aim of this study was to explore how negative emotionality can affect students perceived and actual work habits. The results indicated that both shame proneness and guilt proneness were associated with self-reported procrastination. However, they weren't associated with observed procrastination. The multiple regression model also identified guilt proneness as a negative predictor of self-reported procrastination. Shame and guilt proneness are two of the many variables that can affect a college student's choice of coping mechanism. Therefore, a person's propensity to engage in a situation to deal with stress or to disengage and avoid the issue, which leads to procrastination, may be correlated with their levels of guilt and shame-proneness.

Procrastination makes a significant impact not only on individual mental and physical health but on the economy as well. Spira and Feintuch (2005) concluded that \$588 billion is lost in U.S. workplace productivity each year due to distractions stemming from use of technology (e.g., social media, email, internet surfing) that result in procrastination. Addressing solutions for minimizing the impact of procrastination is critical. The present findings suggest that depressive rumination mediates the effects of shame on procrastination. Guilt can also increase procrastination by promoting reflective pondering. Thus, any therapy that targets shame or rumination can help prevent procrastination to a high extent. Treatments like mindfulness and REBT can decrease shame among people. Rumination focused CBT can effectively reduce the effect of rumination on individuals. These promising treatments can give

mental health providers many options for using rumination and shame focused interventions in order to reduce procrastination. And when these two are low, the chances of suicides among young adults automatically decreases by a great extent and improves their mental health.

Few studies have looked at the combined impacts of shame, rumination, and procrastination, despite the fact that they have all been studied separately. In particular, little is known about how rumination affects the link between shame and procrastination. It might operate as a moderator, enhancing the effect of shame on procrastination. Considering that both rumination and shame amplify avoidance inclinations, this relationship between the three variables is very much possible. There is a hypothesis that procrastination and higher degrees of shame will be positively connected, with the association being stronger for those who ruminate more. By analysing the connection between procrastination and shame and determining whether rumination mitigates this relationship, the current study seeks to close this gap.

Procrastination

Solomon and Roth Blüm (1984) defined procrastination as “the act of needlessly delaying tasks to the point of experiencing subjective discomfort”. Procrastination can also be defined as “the delay that is due to the avoidance of the implementation of an intention” (Van Eerde, 2000). Procrastination is generally defined as “the intention or the thought of completing a task but failing to act in time to finish the task within the expected time limit” (Senecal, Koestner, & Vallerand, 1995).

A study was conducted to understand the effect of academic procrastination in predicting academic stress among young adults and also to explore the moderating role of peer influence resistance. A sample of 400 young adults (200 male and 200 female) between the ages of 18 to 25 was taken. A significant positive relationship was found between academic procrastination and academic stress whereas a negative relation was found between peer influence resistance and both academic stress and academic procrastination. Results also showed that females were more resistant to peer influence whereas males appeared to procrastinate more than females. It was then established that peer influence resistance is a protective factor against negative consequences of academic procrastination in decreasing academic stress (Ashraf et al., 2019).

A study was conducted on a sample of 86 undergraduates (34 male and 52 female) between the age of 18-49 years old, to clarify the relationship of chronic procrastination with affective experiences of shame and guilt. Correlational analyses revealed that shame proneness was related to procrastination tendencies, whereas guilt proneness wasn't. Additionally, using

hierarchical regression, shame was found to be a moderator between chronic procrastination and perfectionism. Overall, the results suggest that affect plays an important role in understanding the complex dynamics of chronic procrastination (Fee and Tangney, 2000).

A study was conducted using a mixed method approach to explore the types, triggers and acceptance of counter measures for procrastination on social media, on a sample of 288 participants. Several predictors such as self-control and conscientiousness were found to be significant predictors, but overall, the amount of variance explained by the regression models was relatively low. The results show that participants were receptive to counter measures for procrastination being delivered through social media but says that predictors of procrastination related phenomena experienced in social networking sites are different than in offline settings.

Shame

Shame is defined as a “self-conscious emotion that arises following a perceived failure, particularly one that threatens one's need to belong” (Lewis, 1971). Shame is “an emotion associated with a belief that the self (e.g., physical characteristics, personality or interpersonal characteristics, behaviours) will be perceived negatively by others and could lead to rejection/exclusion or aggression/put-down by others” (Gilbert, 2000). Tangney and Dearing (2002) defined shame as “strong negative emotions in which the feeling of global self-aversion is experienced”.

A study was conducted to test the relationship between self-forgiveness and procrastination and the potential mediating effect of emotions on a sample of 217 university students. The data was collected using an online survey assessing their level of procrastination, self-forgiveness for procrastination, shame-proneness, guilt-proneness, and positive and negative emotions. According to the findings, procrastination was correlated with a higher level of self-forgiveness. Higher levels of pleasant emotions acted as a mediator in the link between procrastination and self-forgiveness. Procrastination and shame-proneness were positively correlated, but there was no association between procrastination and guilt-proneness, according to the correlational analyses. Furthermore, the existence of negative emotions acted as a complete mediator in the link between procrastination and shame-proneness. All things considered, it was suggested that a person who forgives themselves for their procrastination may be more inclined to take responsibility, less inclined to refrain from this behaviour in the future, and consequently less likely to procrastinate (Gutierrez et al., 2020).

A study was conducted by Căndea et al. (2014) to examine whether trait rumination moderates the relationship between shame proneness and depressive symptoms. It was conducted on a sample of Eighty-two undergraduate students (8 males and 74 females) with

ages ranging between 19 and 49. According to the findings, trait rumination is a substantial moderator, which means that those who are shame-prone and ruminate often have more severe depressive symptoms. Nevertheless, after accounting for the interaction effect, the explained variation in depressed symptoms only rose from 21% to 27%, suggesting that ruminating somewhat amplifies this link.

Orth et al. (2006) conducted study to investigate event-related shame and guilt, event related rumination, and depression among a sample of 149 mothers and fathers, following family breakup due to marital separation. Latent variable modelling was used to analyse the data. The findings demonstrated that depression is strongly impacted by shame but not guilt. Furthermore, the findings indicate that rumination has a significant mediating role in the impact of shame. This was consistent with the author's theory that, unlike guilt, shame causes rumination, which in turn causes sadness.

Rumination

Vercueil et al. (2011) described rumination as “a form of perseverative cognition, which includes other types of psychological processes such as worry”. Watkins (2009) defined rumination as “rumination may be either a detrimental or beneficial psychological process (i.e., at times, rumination may be beneficial when its specific, concrete and process-focused)”. Watkins and Nolen-Hoeksema (2014) defined rumination as “rumination is a recurrent and repetitive manner of thinking that can be triggered by blockage of personally relevant goals, creating a temporary state of abstract and evaluate self- focus that can eventually lead to a more chronic, trait-like style of ruminative responding to personal challenged”.

A study was conducted to investigate the relationship between SP and emotional eating via facets of shame and rumination on a sample of 174 female university students in Iran. It was found out that emotional eating was significantly impacted by SP. Furthermore, it was found that rumination and shame (general, characterological, and body shame) independently moderated the association between SP and emotional eating. It was also observed that the connection between SP and emotional eating was mediated successively by rumination and shame (general, characterological, and behavioural shame). Results indicate that unpleasant emotions (like shame) and disrupted cognitions (like rumination) are two ways that high SP may raise the likelihood of emotional eating. Emotional eating must therefore be viewed as a maladaptive behaviour that may be adopted as a result of temperamental, emotional, and cognitive system impairment in order to have a better understanding (Salemi et al., 2022).

A study was conducted by Milia et al. (2020) to investigate the effects of self-critical rumination on shame and stress, following perceived failure. A sample of 60 volunteers were

taken who engaged in an impossible task that resulted in guaranteed failure. Higher levels of stress and guilt were reported by participants who were subjected to high performance expectations and self-critical rumination, particularly right after the impossible task. Members of the high-expectations groups generally had greater stress and shame scores. Even after adjusting for group participation and baseline stress and shame, there was a substantial correlation between reported levels of trait self-critical rumination and stress and shame levels over time.

A study was conducted to investigate whether rumination explained the concurrent and prospective associations between symptoms of depression and anxiety in two longitudinal studies. A sample of 1065 adolescents and 1317 adults were taken. The results found out that in teenagers, rumination was a full mediator of the contemporaneous link between anxiety and depressive symptoms, while in adults, it was a partial mediator. Rumination completely mediated the link between baseline depressive symptoms and increases in anxiety in prospective analyses in the adolescent population. Rumination completely moderated both of these correlations in adults: baseline anxiety predicted increase in depression and baseline depression predicted increase in anxiety. These results emphasize how crucial it is to address ruminating in transdiagnostic methods to treat emotional disorders (McLaughlin & Nolen-Hoeksema, 2010).

2. Purpose

The aim of the study is to explore the relationship of rumination, shame and procrastination among young adults.

3. Hypothesis

H1: There will be a significant relationship between shame and procrastination among young adults.

H2: There will be a significant relationship between shame and rumination among young adults.

H3: There will be a significant relationship between rumination and procrastination among young adults.

4. Method

4.1 Sample

A total sample of 37 young adults between the age of 18 to 25 was collected from Delhi, NCR.

4.2 Measures

The General Procrastination Scale (GPS): The general procrastination scale was used to measure the level of procrastination that exists among young adults. This scale was developed by Lodha et al. (2016). The scale consisted of 23 items which were measured on a 5-point Likert scale. Few of the items were marked as Never = 1, Rarely = 2, Sometimes = 3, Often = 4 and Always = 5, While others were reversed scored.

Rumination-Reflection Questionnaire (RRQ): The rumination reflection questionnaire was used to measure the effect of repetitive thought patterns on the relationship between shame and procrastination in any individual participating in the study. The scale was developed by Trapnell and Campbell (1999). The scale consists of 24 items and was measure on a 5-point Likert scale. Few of the items were positive and were marked as 1-Strongly disagree, 2- disagree, 3- neutral, 4- agree, 5- Strongly agree, while others were negatively scored.

Guilt and Shame Proneness Scale (GASP): The guilt and shame proneness scale were used to measure how likely is a person to experience shame as an after effect of procrastination. The scale was developed by Cohen et al. (2011). The scale consisted of 16 items and was measured on a 7- point Likert scale and items were marked as 1- Very unlikely, 2- Unlikely, 3- Slightly unlikely, 4- About 50% likely, 5- slightly likely, 6- Likely, 7- Very likely.

4.3 Procedure

The participants were informed about the purpose of research and the questionnaires were filled through google forms. Each participant was thanked for their cooperation and kind help. Standardised tests were administered to the participants.

5. Analysis of Data

Results

Table 1: Descriptive Statistics

Statistic	Procrastination	Guilt – Negative behaviour evaluation	Guilt – Repair	Shame – Negative self- evaluation	Shame – Withdrawal	Rumination	Reflection
N	37	37	37	37	37	37	37

M	62.3	19.9	20.1	20.1	14.6	37.2	38.9
SD	10.3	5.36	3.74	4.70	4.56	6.91	6.37

Note: *N* = Sample size, *M* = Mean, *SD* = Standard Deviation

Table 2: Correlation

Variable	Procrastination	Guilt – Negative behaviour evaluation	Guilt – Repair	Shame – Negative self- evaluation	Shame – Withdrawal	Rumination	Reflection
Procrastination	—	.064	-.058	-.238	.130	-.144	.067
Guilt – Negative behaviour evaluation	.064	—	.560***	.398*	-.063	.058	.139
Guilt – Repair	-.058	.560***	—	.088	-.163	-.076	.200
Shame – Negative self- evaluation	-.238	.398*	.088	—	.260	.251	.244
Shame – Withdrawal	.130	-.063	-.163	.260	—	-.022	-.297
Rumination	-.144	.058	-.076	.251	-.022	—	.378*
Reflection	.067	.139	.200	.244	-.297	.378*	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

The study variables' descriptive statistics, such as procrastination, rumination, contemplation, shame (negative self-assessment and retreat), and guilt (negative behaviour evaluation and repair), are shown in Table 1. An overview of the distribution and central tendency of the variables is given by the values, which display the sample size (*N*), mean scores, and standard deviations.

The correlation coefficients between the study variables, procrastination, rumination, reflection, shame (negative self-evaluation and retreat), and guilt (negative behaviour assessment and repair) are shown in Table 2. The direction and strength of the correlations between the variables are shown by the coefficients. The following symbols indicate statistically significant correlations: * $p < .05$, ** $p < .01$, and *** $p < .001$.

The results found out that there is a significant positive relationship between Guilt repair and Guilt negative behaviour evaluation ($r=0.56$, $p<.001$). There was also a significant positive relationship between Guilt negative behaviour evaluation and shame negative self-evaluation ($r=0.39$, $p<.001$). Lastly, a significant positive relationship was found between Rumination and Reflection ($r=0.37$, $p<.05$).

6. Discussion of Results

The present study was done to examine the relationships between procrastination, guilt, shame, rumination, and reflection. In addition to mild feelings of guilt and shame, the descriptive statistics showed that the sample exhibited comparatively high levels of procrastination and frequently engaged in self-focused thought through rumination and contemplation.

Procrastination did not substantially correlate with contemplation, rumination, remorse, or shame, according to correlational data. This finding disproves the original prediction, which was supported by earlier research, that procrastination would be positively connected with rumination and shame (Fee and Tangney, 2000). The absence of substantial correlations can be due to sample-specific factors that reduce the expected relationships between procrastination and self-conscious feelings, like coping mechanisms or cultural differences. Procrastination in this group may also be more strongly predicted by other unmeasured factors, such as task-related motivation or self-management techniques.

As anticipated, responses pertaining to guilt revealed significant correlations. In particular, reparative inclinations and negative behaviour appraisal were highly connected, supporting the idea that guilt encourages adaptive behavioural outcomes (Tangney et al., 1996). This result is consistent with earlier research that views guilt as behaviour-based rather than self-centred, frequently inspiring positive behaviour to mend social ties. Furthermore, there was a positive correlation between shame bad self-assessment and guilt negative behaviour appraisal. This partial crossover between shame and guilt is consistent with previous research showing that, despite their differences, people can experience both feelings simultaneously when they believe they have transgressed social or moral norms (Tangney & Dearing, 2002).

Weaker and less reliable associations were shown by shame responses. Since shame withdrawal did not substantially correlate with any of the variables, it is possible that avoidance behaviours in response to shame operate independently of procrastination, guilt, or introspection. Though not statistically significant, there was a little positive correlation between contemplation and shame poor self-evaluation. Perhaps as a means of digesting and

comprehending their experiences, this pattern suggests that some people who suffer from self-critical shame also practice adaptive self-reflection.

Lastly, a positive correlation between rumination and reflection supported the idea that, despite their differences in adaptability, these two types of self-focused thought are connected. This study supports previous research (Trapnell & Campbell, 1999) that suggested ruminating people also had a tendency to reflect, with psychological effects influenced by the ratio of maladaptive to adaptive self-focus. Contrary to other studies that connected ruminating to self-conscious feelings and avoidance behaviours, neither rumination nor reflection shown any meaningful associations with procrastination, guilt, or shame (Orth et al., 2006).

When combined, the results paint a mixed picture: procrastination, shame, and rumination did not support the expected relationships, while guilt-related processes did support existing theoretical and empirical models highlighting their adaptive function. These differences could be the result of contextual factors influencing how procrastination appears in this group or the very small sample size, which restricts statistical power. Larger and more varied sample sizes in future studies could help elucidate these connections and investigate possible mediators such personality traits, cultural norms, and emotion control.

7. Conclusion

The relationships between procrastination, rumination, reflection, guilt, and shame were investigated in this study. Procrastination did not substantially connect with guilt, shame, or self-focused thinking, despite the fact that guilt-related processes showed the expected adaptive relationships. This suggests that other factors may also have an impact on procrastination in this population. These results underline the intricacy of procrastination as a psychological construct and add to the continuing conversation regarding the varied ways that guilt and shame influence behaviour.

The findings' generalizability is limited by certain restrictions, such as the comparatively small sample size ($N = 37$), which also lowers statistical power to identify smaller effect sizes. Furthermore, it should be noted that the cross-sectional design precluded drawing inferences regarding the causal links between procrastination, emotions, and cognitive processes. To improve generalizability, larger and more varied samples should be taken into account in future studies. The directionality of the connections between procrastination and self-conscious emotions may be better understood using longitudinal methods. Investigating mediating and moderating factors that might explain whether guilt and shame result in adaptive versus maladaptive consequences, such as emotion management techniques, cultural

influences, or personality features, may also be helpful. Future research may provide further light on the ways that guilt, shame, and self-centred cognitive processes contribute to behavioural issues as well as personal development by broadening the scope of the study and putting these discoveries into reality.

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