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Relationships of Mindfulness, Self-Compassion, and Meditation Experience With Shame-Proneness

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The tendency to experience shame or guilt is associated differentially with anxiety, depression, and substance abuse, with shame being associated with greater psychopathology. Recent interventions designed to decrease shame emphasize mindfulness or self-compassion. This study investigated correlational relationships of shame-proneness and guilt-proneness with mindfulness and with self-compassion in undergraduate participants. Shame-proneness was strongly negatively correlated with all facets of mindfulness and with self-compassion, whereas guilt-proneness was weakly positively correlated with self-compassion and some facets of mindfulness. Hierarchical regression analysis showed that shame-proneness was predicted by self-compassion but not by mindfulness. More frequent meditation was associated with greater mindfulness and self-compassion and lower shame-proneness but not guilt-proneness. Limitations of the study and implications of the findings for interventions to reduce shame are discussed.

Keywords: shame; guilt; mindfulness; self-compassion; meditation

Guilt and shame are self-conscious emotions that require recognition of a self that evaluates itself against standards, rules, and goals (M. Lewis, 1995). Guilt and shame differ from each other in their associated cognitions and action tendencies. When feeling guilty, relatively more emphasis is given to thoughts about actions than about the self (Barrett, 1995; M. Lewis, 1995), including a focus on the negative consequences of actions for others (Barrett, 1995; Baumeister, Stillwell, & Heatherton, 1994). In addition, appraisals of having violated personal or moral standards are associated with experiencing guilt (Lindsay-Hartz, de Rivera, & Mascolo, 1995; Roseman, Wiest, & Swartz, 1994). Although people experiencing guilt may focus on aspects of the self that led to a failure of action (M. Lewis, 1995), they do not make global negative evaluations of the self. In contrast, global negative evaluation of the self as inferior, incompetent, or bad may be a core feature of shame (Baumeister et al., 1994; H. Lewis, 1971; M. Lewis, 1995). Shame is also associated with judging oneself through the eyes of another (Taylor, 1985). Attributions to internal, global, stable, and uncontrollable aspects of the self are associated with shame, whereas guilt involves attributions to internal, specific, unstable, and controllable aspects

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of the self (Tracy & Robbins, 2004, 2006). Shame and guilt also show different action tendencies. Hiding oneself from others is associated with shame (Lindsay-Hartz, 1984; Lindsay-Hartz et al., 1995; Tangney, Miller, Flicker, & Barlow, 1996), but guilt motivates confession (Barrett, 1995) and reparation, which may take the form of apologizing, undoing damage, or otherwise repairing the situation (Lindsay-Hartz, 1984; Lindsay-Hartz et al., 1995; Roseman et al., 1994).

Shame and guilt have different relationships to interpersonal variables and to psychopathology. The tendency to experience guilt, or guilt-proneness, is correlated positively with empathy, whereas shame-proneness is related negatively to empathy (Leith & Baumeister, 1998; Tangney, 1991). Shame-proneness is positively correlated with irritability, suspiciousness, resentment, anger arousal, and externalization of blame for negative events, whereas guilt-proneness, controlling for shame-proneness, is inversely related or unrelated to these variables (Tangney, Wagner, Fletcher, & Gramzow, 1992). When the shared variance of shame-proneness and guilt-proneness is accounted for, shame-proneness is correlated positively with anxiety problems and depression, but guilt-proneness is negatively or unrelated to them (Tangney, Wagner, & Gramzow, 1992). Alternative measures of dispositional shame have also shown a positive relationship with depression and anxiety (Gilbert, Pehl, & Allan, 1994; Goss, Gilbert, & Allan, 1994). A recent meta-analytic review of 108 studies (Kim, Thibodeau, & Jorgenson, 2011) showed that shame, controlling for guilt, was associated with depression at a moderate to large effect size, whereas the association of guilt with depression, controlling for shame, did not differ from zero. Shame is also more common than guilt among individuals with substance use problems and predicts relapse into substance use (Dearing, Stuewig, & Tangney, 2005).

Given the evidence that shame, but not guilt, is associated with psychopathology, specific interventions to address shame have been proposed. Rizvi and Linehan (2005) employed the dialectical behavior therapy technique of "opposite action," in which emotions are regulated by engaging in actions opposite to the relevant action tendency of that emotion. The authors tested a short-term intervention with five women with borderline personality disorder and found that shame was reduced in all participants following the intervention. Gilbert and Procter (2006) trialed compassionate mind training (CMT), an approach designed for people who experience chronic problems with high shame and self-criticism, in a pilot study with six participants who had severe and complex difficulties. There were significant reductions in shame, self-criticism, depression, and anxiety following 12 2-hour sessions. CMT was the basis for development of compassion-focused therapy (CFT; Gilbert, 2010), which includes mindful focus on breathing, compassion-focused imagery, compassionate chair work, directing compassionate feelings toward others, generation of experiences of receiving compassion from others, and compassionate letter writing. Finally, a group-based acceptance and commitment therapy (ACT) approach was added to treatment as usual (TAU) in a randomized controlled trial with 133 participants who had a substance use disorder (Luoma, Kohlenberg, Hayes, & Fletcher, 2012). The ACT intervention, which involved three 2-hour sessions during a single week, addressed shame through cognitive defusion and acceptance skills training, mindfulness exercises, sharing negative self-judgments, and identification of goals and values. The TAU group showed a medium-sized and significant reduction in shame from pretreatment to posttreatment, which decreased to a small and nonsignificant effect from posttreatment to 4-month follow-up. However, the ACT group showed a small and significant improvement in shame from pretreatment to posttreatment, which increased to a medium and significant improvement from posttreatment to follow-up.

Of the three innovative interventions to address shame described earlier, the ACT approach and the "opposite action" intervention both address experiential avoidance of shame by encouraging acceptance rather than avoidance of experiences and incorporate concepts of mindfulness. In addition, the CFT and ACT approaches used in the earlier mentioned intervention studies

include specific mindfulness exercises. Thus, recent interventions to address shame incorporate the concept of mindfulness. Compassion is a second theme of recent shame interventions. Although an attitude of compassion is associated conceptually with mindfulness (Bishop et al., 2004), CFT has a central focus on compassion toward oneself and toward others.

Although recent interventions to address shame include exercises to encourage mindfulness and self-compassion, the relationships between shame and mindfulness or self-compassion have been, to our knowledge, explored infrequently in previous research. This study explored the relationships between measures of shame, mindfulness, and self-compassion.

Bishop et al. (2004) described mindfulness as consisting of two components: self-regulation of attention, directed to the present moment, together with an orientation component of curiosity, openness, and acceptance. Other aspects or attitudes have been ascribed to the orientation component of mindfulness, including a nonjudgmental compassionate attitude, nonidentification with experiences, nonreactivity to experiences, and insightful understanding (Bergomi, Tschacher, & Kupper, 2012).

The association of nonjudgment and compassion with mindfulness suggests that measures of self-compassion and mindfulness should be positively related. Indeed, Neff's (2003b) Self-Compassion Scale (SCS) includes mindfulness as one of the self-compassion factors. Later studies have confirmed that the SCS is positively correlated with two different measures of mindfulness (Baer, Lykins, & Peters, 2012; Van Dam, Sheppard, Forsyth, & Earleywine, 2011).

The concept of self-compassion measured by the SCS involves being touched by and open to one's own suffering rather than avoiding or disconnecting from suffering (Neff, 2003a). The negative relationship of the SCS with self-criticism (Neff, 2003b) suggests that self-compassion is also likely to be negatively associated with the tendency to experience shame. Two recent studies have supported this relationship.

Mosewich, Kowalski, Sabiston, Sedgwick, and Tracy (2011) found that self-compassion was negatively related to shame-proneness ($r = -.32$) and was positively related to shame-free guilt-proneness ($r = .26$) in young women athletes. Barnard and Curry (2012) measured shame- and guilt-proneness and self-compassion in clergy participants, most of whom were male. A strong zero-order correlation between shame-proneness and self-compassion was found ($r = -.55$), but there was no correlation with guilt-proneness ($r = .00$).

Mindfulness is characterized by one's capacity to bring complete attention to the experience of the present moment in a nonjudgmental and accepting manner (Baer, Smith, Hopkins, Krietemeyer, & Toney, 2006). Mindfulness promotes a focus on immediate surroundings and consequently attentional resources are not available to be involved in abstract self-evaluative and self-conscious thoughts, which are characteristic of the experience of shame (Leary, Adams, & Tate, 2006). Therefore, we would expect measures of mindfulness to be negatively related to the tendency to experience shame, which involves a consuming negative focus on oneself. In addition, the attitudes of nonjudgment and compassion associated with a mindful orientation would be expected to show a negative relationship to shame. Overall, both the attention and orientation components of mindfulness are expected to be negatively associated with shame.

The practice of meditation is associated with increased self-compassion (Neff, 2003a) and mindfulness (Baer et al., 2006). Therefore, the practice of meditation would be expected to decrease shame through the promotion of self-compassion and mindfulness. Baer et al. (2012) found such a relationship between meditation experience, self-compassion, mindfulness, and psychological well-being. Meditation experience was positively correlated with psychological well-being, but the relationship was fully mediated by self-compassion and by mindfulness. Although both mediators contributed unique variance to the indirect relationship, self-compassion was a stronger mediator of the relationship between meditation experience and psychological well-being.

This study builds on the work of Mosewich et al. (2011) concerning shame-proneness, guilt-proneness, and self-compassion by examining the relationships between measures of these concepts and a measure of mindfulness. In addition, the relationship between meditation experience and shame- and guilt-proneness and the mediating effects of mindfulness and self-compassion were examined. The following hypotheses regarding relationships between shame-proneness and guilt-proneness, mindfulness, and self-compassion were proposed in this study.

Hypothesis 1 was that shame-proneness will be negatively correlated with self-compassion, whereas guilt-proneness would be positively correlated with self-compassion, as was found in previous studies (Barnard & Curry, 2012; Mosewich et al., 2011). Following findings that self-compassion and mindfulness were positively correlated (Baer et al., 2012; Van Dam et al., 2011), Hypothesis 2 was that shame-proneness would be negatively correlated with components of mindfulness, whereas guilt-proneness would be positively correlated with mindfulness components. Given that mindfulness and self-compassion are correlated but not identical, Hypothesis 3 was that mindfulness and self-compassion would each explain significant unique variance in shame-proneness. Hypothesis 4 was that meditation experience would be associated with lower shame-proneness and that this relationship would be mediated by mindfulness and self-compassion, as was found by Baer et al. (2012) for psychological well-being.

Method

Participants and Procedures

Participants were 212 undergraduate psychology students from a South Australian university. Of those, 112 were female (52.8%), 42 were male (19.8%), and 58 (27.4%) participants did not report their gender. Ages of participants ranged from 17 to 51 years ($M = 21.3$ years; $SD = 6.5$) and 104 (49.1%) participants did not report their age. In terms of meditation experience, 68 (32.1%) of participants had no experience, 86 (40.6%) had experience, and 58 (27.4%) did not report their status. The frequency with which participants practiced meditation was never, 93 (43.9%); less than once per month, 38 (17.9%); once or more per month, 23 (10.8%); whereas 58 (27.4%) did not report their meditation frequency.

The study was approved by the Human Research Ethics Committee of the University of South Australia. Undergraduate students were approached at the beginning of lectures and asked to complete the survey on a voluntary basis. Surveys were collected at the end of lectures or returned to a box in the School of Psychology, Social Work and Social Policy. No compensation was offered for participation.

Measures

Test of Self-Conscious Affect-3 (TOSCA-3). The TOSCA-3 (Tangney & Dearing, 2002) assesses shame-proneness and guilt-proneness using 16 scenarios and associated responses that measure the tendency to elicit either a shame or guilt response. For example, 1 scenario is that a person breaks something at work and then hides it. Each scenario has four responses to which participants indicate their level of agreement on a Likert-type scale ranging from 1 (*not likely*) to 5 (*very likely*). For example, the four responses for the previous scenario include thinking about fixing the situation, thinking about quitting work, thinking it was only an accident, or taking an indifferent attitude toward the incident. Although the TOSCA-3 also measures detached and externalizing responses, only the shame-proneness and guilt-proneness scales were used in this study. The TOSCA-3 has internal consistency reliability (Cronbach's alpha) of .66 for guilt-proneness and .76 for shame-proneness (Tangney et al., 1992).

Self-Compassion Scale. The SCS (Neff, 2003b) is a self-report questionnaire that measures six positive and negative factors of self-compassion: self-kindness, self-judgment, common humanity, isolation, mindfulness, and overidentification. The 26 questions are rated on a Likert-type scale ranging from 1 (*almost never*) to 5 (*almost always*). The SCS has good internal consistency reliability for all subscales, from alpha of 0.75 to 0.81 for the factors and 0.92 for the total SCS. The SCS has demonstrated construct validity using measures of social connectedness, perfectionism, emotional intelligence, anxiety, depression, and life satisfaction (Neff, 2003b). Only the total SCS score was used in analyses.

Five Facet Mindfulness Questionnaire (FFMQ). The FFMQ (Baer et al., 2006) is a self-report questionnaire derived from the factor analysis of five recent and independently developed mindfulness questionnaires. It assesses the inclination to think and behave mindfully in daily life. The five facets include observing, describing, acting with awareness, nonreactivity to inner experience, and nonjudging of inner experience. The FFMQ has 39 questions, rated on a Likert-type scale ranging from 1 (*never* or *very rarely true*) to 5 (*very often* or *always true*). The FFMQ has internal consistency reliability (alpha) of 0.86–0.93 for the five facets (Isenberg, 2009; Neuser, 2010). The FFMQ is a comprehensive scale that integrates conceptualizations of mindfulness underlying five validated mindfulness scales and assesses five different aspects of mindfulness (Bergomi et al., 2012). In terms of construct validity, experienced meditators achieve higher scores on FFMQ facets (Baer et al., 2008).

Results

Preliminary Data

The sample was normally distributed for the following variables: total self-compassion and the *observe*, *nonjudge*, and *describe* facets of the FFMQ according to the Kolmogorov–Smirnov statistic. Further inspection of histograms, skew, and kurtosis showed normal distributions for guilt-proneness, shame-proneness, and the FFMQ *act with awareness* facet. No extreme outliers were identified for these variables. The Kolmogorov–Smirnov statistic was statistically significant for *total FFMQ score* and the *nonreact* facet, but visual inspection showed minor departures from normality that would be unlikely to make a substantive difference to the analyses with a participant sample of this size. In addition, one outlier was detected for *total FFMQ*. However, the 5% trimmed means for *total FFMQ* score and *nonreact*, like all other scales, were extremely similar to the actual means; therefore, no cases were deleted.

Internal consistency analyses showed moderate to high alpha coefficients for all scales. For the TOSCA-3, alpha values were .82 for the shame-proneness scale and .70 for guilt-proneness. For the FFMQ, Cronbach's alpha values for the five facets were .77 for *observe*, .87 for *describe*, .85 for *act with awareness*, .88 for *nonjudge*, and .82 for *nonreact*. For the SCS, the Cronbach's alpha value was .93 for the total SCS score.

In view of the amount of missing data for gender, age, and meditation experience, *t* tests of differences between participants who did or did not report gender, age, or meditation experience were performed for shame-proneness, guilt-proneness, self-compassion, and total mindfulness score. There were no statistically significant differences between participants who did or did not report gender. For age, those participants who did not report age achieved higher mean total mindfulness scores ($M = 127.56$) than those who did report age ($M = 122.50$), $t\,(210) = 2.00$, $p = .05$. There were no significant differences for shame-proneness, guilt-proneness, or self-compassion. There were no statistically significant differences on the four dependent variables between participants who did or did not report meditation experience. In subsequent analyses, missing data were dealt with using pairwise deletion for specific statistical analyses.

Descriptive Analyses

Analysis of gender differences showed that females received higher scores than males on shame-proneness ($M = 31.15$ and $M = 27.21$, respectively) and guilt-proneness ($M = 44.98$ and $M = 40.52$) and lower scores than males on self-compassion ($M = 74.46$ and $M = 80.95$) and total mindfulness ($M = 121.90$ and $M = 129.25$). The multivariate effect of gender was statistically significant, $V = .15$, $F(4,149) = 6.33$, $p < .001$, partial $\eta^2 = .15$. Univariate differences were statistically significant for shame-proneness, $F(1, 152) = 7.44$, $p = .007$, partial $\eta^2 = .05$; guilt-proneness, $F(1, 152) = 21.53$, $p < .001$, partial $\eta^2 = .12$; self-compassion, $F(1, 152) = 4.78$, $p = .03$, partial $\eta^2 = .03$; and total mindfulness, $F(1, 152) = 5.05$, $p = .03$, partial $\eta^2 = .03$.

Zero-order correlations of age of participant with guilt-proneness, shame-proneness, and self-compassion were not statistically significant, but the correlation of age with total FFMQ score was statistically significant, $r(108) = .26$, $p = .008$.

Correlations between shame-proneness, guilt-proneness, mindfulness facets, and self-compassion, as well as means and standard deviations, are shown in Table 1. The FFMQ facets were positively and statistically significantly correlated with each other. The weakest relationship was between *observe* and *nonjudge* facets. Because of the correlation between shame-proneness and guilt-proneness ($r = .41$), partial correlations between shame-proneness or guilt-proneness and other variables are presented.

Hypothesis 1 stated that shame-proneness would be negatively correlated with self-compassion, whereas guilt-proneness would be positively correlated with self-compassion. This hypothesis was supported because both correlations with self-compassion were statistically significant in the predicted directions. Hypothesis 2 stated that shame-proneness would be negatively correlated with components of mindfulness, whereas guilt-proneness would be positively correlated with mindfulness components. Hypothesis 2 was partially supported. The partial correlations between shame-proneness and total FFMQ score and all five facets of mindfulness were large and negative. Partial correlations between guilt-proneness and total FFMQ and the FFMQ facets were all positive in direction. However, the partial correlations with guilt-proneness were statistically significant only for *describe* and *act aware* facets as well as for total FFMQ score.

Prediction of Shame-Proneness

Hierarchical multiple regression analysis was conducted to investigate the prediction of shame-proneness by mindfulness and self-compassion. Given that all partial correlations between FFMQ facets and shame-proneness were negative and statistically significant, only FFMQ total score was entered into the regression analysis. Guilt-proneness was entered into the model first. Because of the statistically significant gender differences for shame-proneness and the other three predictors, gender was entered at the second step. Self-compassion and total FFMQ score were entered at the final step.

Guilt-proneness predicted shame-proneness, $R^2 = .17$, $F(1, 152) = 31.25$, $p < .001$. When guilt-proneness was controlled for, the contribution of gender was not statistically significant, $R^2 = .18$, $\Delta R^2 = .01$, F change $(1, 151) = 1.04$, $p = .31$. The addition of self-compassion and total FFMQ explained unique variance in shame-proneness, $R^2 = .44$, $\Delta R^2 = .27$, F change $(2, 149) = 35.94$, $p < .001$. The contribution of self-compassion was statistically significant, $\beta = -.40$, $t(153) = -4.60$, $p < .001$; but the contribution of total FFMQ score did not reach statistical significance, $\beta = -.16$, $t(153) = -1.88$, $p = .06$. Hypothesis 3, that mindfulness and self-compassion would explain significant unique variance in shame-proneness, was partially supported.

TABLE 1. Summary of Zero-Order and Partial Intercorrelations, Means, and Standard Deviations for Scores on TOSCA-3 and FFMQ Subscales and SCS ($N = 212$)

Measure	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1. Shame-proneness									
2. Guilt-proneness	.41**								
3. Observe	−.21**[a]	.11[b]							
4. Describe	−.31**[a]	.14*[b]	.40**						
5. Act aware	−.37**[a]	.15*[b]	.30**	.41**					
6. Nonjudge	−.45**[a]	.05[b]	.17**	.37**	.46**				
7. Nonreact	−.42**[a]	.12[b]	.45**	.40**	.31**	.36**			
8. FFMQ total	−.50**[a]	.18*[b]	.65**	.74**	.72**	.70**	.69**		
9. SCS	−.59**[a]	.16*[b]	.32**	.37**	.48**	.59**	.67**	.69**	
M	30.29	44.07	25.50	28.44	24.22	25.87	20.92	77.18	
SD	8.09	5.55	5.22	5.30	5.34	6.08	4.44	16.95	

[a]Controlling for guilt-proneness ($N = 209$).
[b]Controlling for shame-proneness ($N = 209$).
*$p < .05$. **$p < .01$.

Frequency of Meditation

Means and standard deviations for total FFMQ, self-compassion, shame-proneness, and guilt-proneness across categories of meditation frequency are shown in Table 2. Meditation frequency was divided into three categories: *once per month or more*, *less than once per month*, and *never*. A one-way between-groups multivariate analysis of variance (MANOVA) showed a significant multivariate effect of meditation frequency on the dependent variables, $V = 0.16$, $F(8, 289) = 3.26$, $p = .001$, partial $\eta^2 = .08$. Univariate analyses of variance (ANOVAs) showed a significant effect of meditation frequency on total FFMQ score, $F(2, 151) = 11.48$, $p < .001$, partial $\eta^2 = .13$; self-compassion (SCS), $F(2, 151) = 6.44$, $p = .002$, partial $\eta^2 = .07$; and shame-proneness, $F(2, 151) = 3.95$, $p = .02$, partial $\eta^2 = .05$. However, a nonsignificant effect of frequency of meditation was found for guilt-proneness, $F(2, 151) = 2.74$, $p = .07$, partial $\eta^2 = .03$.

Post hoc pairwise Bonferroni comparisons revealed that for total FFMQ and for SCS score, there was no statistically significant difference between never meditating and meditating less than once a month, but there was a significant difference between never meditating and meditating once per month or more and a significant difference between meditating less than once a month and once per month or more. Participants who meditated less than once a month had the lowest total FFMQ or SCS score and participants who meditated once per month or more had the highest scores.

For shame-proneness, the only significant difference between groups was between meditating less than once per month and once per month or more. Those who meditated once per month or more had lower shame-proneness scores compared with those who meditated less than once per month.

The first part of Hypothesis 4, that there would be a relationship between meditation experience and shame-proneness, was partially supported because regular meditation was associated with lower shame-proneness than infrequent meditation, but shame-proneness was not significantly different for individuals who had never meditated. Therefore, the second part of the hypothesis, that the relationship between meditation and shame-proneness would be mediated by self-compassion and mindfulness, was not tested.

TABLE 2. Scores for Study Measures According to Frequency of Meditation Practice

Measure	Meditation Frequency	*n*	*M*	*SD*
FFMQ total	Never	93	121.87	15.91
	Less than once per month	38	119.42	16.16
	Once per month or more	23	139.54	22.90
SCS	Never	93	75.15	15.72
	Less than once per month	38	72.39	14.75
	Once per month or more	23	86.96	19.12
Shame-proneness	Never	93	30.08	8.02
	Less than once per month	38	32.30	6.74
	Once per month or more	23	26.37	9.61
Guilt-proneness	Never	93	43.50	5.49
	Less than once per month	38	45.41	4.44
	Once per month or more	23	42.11	7.49

Note. FFMQ = Five Facet Mindfulness Questionnaire; SCS = Self-Compassion Scale.

Discussion

The aim of this study was to examine the relationships of shame-proneness and guilt-proneness to mindfulness and self-compassion. The first hypothesis, that shame-proneness would be negatively correlated with self-compassion and guilt-proneness would be positively correlated with self-compassion, was supported. This result was in accord with the findings of Mosewich et al. (2011). However, the correlation of self-compassion with guilt-free shame-proneness was greater and the correlation with shame-free guilt-proneness was lower in this study. This result is also consistent with that found by Barnard and Curry (2012), although they reported a zero-order correlation rather than a partial correlation. As noted by Mosewich et al. (2011), the three positive aspects of self-compassion measured by the SCS contrast with three aspects of shame. The self-kindness aspect of self-compassion contrasts with the negative self-evaluation of shame; the common humanity aspects of self-compassion contrasts with the self-focus of shame; and the mindfulness aspect of self-compassion, of holding painful experiences without overidentifying with them, contrasts with shame-based generalization of failure experiences to the entire self. Shame-free guilt-proneness refers to judgment of actions more than of the self, with relatively little focus on the self (Barrett, 1995; M. Lewis, 1995). Therefore, its focus differs from self-compassion, which has a compassionate attitude toward the self. The difference in areas of concern of guilt-proneness and self-compassion may account for the positive but small relationship between these variables.[1]

Hypothesis 2 stated that shame-proneness would be negatively correlated with components of mindfulness, whereas guilt-proneness would be positively correlated with mindfulness components. Hypothesis 2 was partially supported, because there were large, negative partial correlations between shame-proneness and all FFMQ facets of mindfulness. The capacity to direct attention to present experience with a nonjudging and accepting attitude in mindfulness (Baer et al., 2006) contrasts with self-focused attention, whereas nonjudgment contrasts with the negative evaluation of the self in experiences of shame. Partial correlations between guilt-proneness and total FFMQ and the FFMQ facets were in the predicted positive direction, but only *describe* and *act aware* facets and total FFMQ score showed significant correlations with shame-free guilt-proneness. This finding is consistent with the notion that guilt is concerned with actions more than with the self in that describing one's actions and awareness of those actions may be important to apologize or otherwise make appropriate reparation for actions. Because guilt may lead to actions aimed at making reparation, the lack of relationship with the *nonreact* facet is unsurprising. Nonjudgment might be considered to contrast with guilt, which concerns judgment of actions, so that the lack of relationship with the *nonjudge* facet is perhaps surprising. However, this FFMQ facet concerns nonjudging of experience, not actions. Therefore, the very low correlation between guilt-proneness and the *nonjudge* facet is understandable.

Neff (2003b), the author of the SCS, contends that self-compassion requires recognition of the related experiences of self and other, which contrasts with self-absorption and overidentification with experience. Therefore, a compassionate attitude toward oneself requires individuals to adopt the nonjudgmental, receptive state of mindfulness. The SCS showed a strong correlation with total FFMQ score (.69) and correlations ranging from .32 (*observe*) to .67 (*nonreact)* with the five FFMQ facets. Interestingly, Baer et al. (2012) obtained an identical correlation between SCS and FFMQ total scores. This result is not likely to be due solely to the inclusion of a mindfulness factor in the SCS because other SCS factors were also strongly related to the FFMQ total score.[2]

According to the third hypothesis, mindfulness and self-compassion would each explain significant unique variance in shame-proneness. Hypothesis 3 was partially supported because self-compassion explained unique variance in shame-proneness but FFMQ total did not after

controlling for guilt-proneness and gender. This result adds to other findings that self-compassion is a stronger predictor of mental health variables than mindfulness, including anxiety and depression (Van Dam et al., 2011); cognitive reactivity, which is related to depressive relapse (Kuyken et al., 2010); and quality of life (Baer et al., 2012; Van Dam et al., 2011).

Analysis of the effect of frequency of meditation practice showed that frequency of meditation was related to differences in total FFMQ score, self-compassion, and shame-proneness. Participants who reported meditating more than once per month had higher total FFMQ scores than those who never or infrequently meditated. This finding is consistent with previous studies in which meditation experience was associated with higher FFMQ scores (Baer et al., 2012; Baer et al., 2008), although those studies included individuals who reported greater frequency of meditation. Meditation more than once per month in this study was also associated with greater reported self-compassion. This finding is consistent with that of Neff (2003b), who found that Buddhist practitioners of meditation received higher scores on the SCS and positive self-compassion factors than undergraduate students and lower scores on the negative self-compassion factors. Repeated meditation practice that is undertaken with a compassionate attitude is likely to be reflected in changes in self-compassion.[3]

Hypothesis 4 was partially supported. Frequency of meditation practice was associated with lower shame-proneness but not with guilt-proneness. However, the relationship of meditation frequency to shame-proneness was complex. There was no significant difference between those who never meditated and those who did so more than once per month. However, those participants who had experience of meditation but did so infrequently (less than once per month) reported greater proneness to experience shame than participants who meditated more than once per month. It is possible that the intentional direction of attention inward during mindfulness practice may intensify awareness of the experience of shame. Infrequent practice of meditation may possibly reflect avoidance of this intensified awareness of shame. However, with frequent practice of meditation, the repeated attention to inner experience, accompanied by attitudes of acceptance and compassion, may help to reduce the intensity and frequency of shame. The possibility that meditation may initially intensify and then decrease shame could be tested in future studies by monitoring shame at frequent intervals after the commencement of a meditation intervention.

The two major findings of this study have implications for psychological interventions which are designed to decrease the experience of shame. First, the finding that self-compassion was a predictor of shame-proneness, but mindfulness was not, suggests that self-compassion should be a particular focus of shame interventions. Second, lower shame-proneness was associated with meditation of more than once per month, compared to very infrequent meditation, in this study. It is possible that the attitude of self-compassion which accompanies mindfulness meditation is the most effective aspect of meditation practice for influencing shame-proneness. Interventions that are intended to reduce shame experiences might effectively address self-compassion directly rather than indirectly through mindfulness. For example, mindfulness meditation may be supplemented by loving-kindness meditation (LKM), a technique for cultivating kindness toward all living things. LKM together with mindfulness meditation has been found to result in increased self-compassion, as measured by the SCS (Weibel, 2007). Alternatively, CFT (Gilbert, 2010), which includes compassion-focused imagery and other exercises to focus on experiences for compassion from others, may offer a particularly useful approach for promoting self-compassion. Finally, Neff and Germer (2013) reported a promising new intervention, mindful self-compassion (MSC), which combines the application of mindfulness, self-compassion, and LKM practice. They found that this 8-week intervention resulted in increased happiness, life satisfaction, mindfulness, and self-compassion and decreased depression, anxiety, and stress. The MSC approach may be a useful intervention for reducing shame.

This study has several limitations. First, a sample of convenience was used so that results may not be generalizable to the general public. Investigation of the relationship of demographic variables of age and gender with the dispositional variables showed that increasing age was associated with increasing mindfulness, a finding also reported by Neuser (2010). For gender, female participants obtained higher scores for shame-proneness and guilt-proneness, which has also been found for several participant samples with the TOSCA-3 (Tangney & Dearing, 2002). In addition, the finding in this study that females obtained lower self-compassion scores has been previously reported (Neff, 2003b). However, the finding of lower scores on the FFMQ obtained by female participants is at variance with findings from previous studies of no gender differences (Baer et al., 2008; Neuser, 2010). This may perhaps reflect the fact that, unlike these previous studies, the participant sample consisted exclusively of students. Studies of the relationships between shame-proneness, mindfulness, and self-compassion with broader community samples and with clinical samples are needed.

Second, the amount of missing data in this study may limit the confidence we can place in our findings. Although there were no statistically significant differences between participants who did or did not report gender or meditation practice on the dependent variables, there was an effect at the .05 significance level for the age variable in that those participants who did not report their age obtained higher FFMQ scores. We are unable to explain this finding.

Third, the study produced a limited range of data regarding meditation experience, because only about 10% of participants reported meditating once per month or more and no information was obtained regarding the duration of meditation sessions. Therefore, the findings regarding meditation experience and shame-proneness should be regarded as tentative. Future investigation of the link between shame-proneness and meditation experience should include measures of duration in years, frequency of meditation which includes weekly and daily categories, and duration of meditation sessions. Participants should be included from meditation groups or associated organizations, in which a high frequency of meditation experience would be expected.

Fourth, the small relationships that were found between guilt-proneness, mindfulness, and self-compassion may be influenced by the measure of dispositional guilt used in the study. Kim et al. (2011) classified the TOSCA-3 guilt-proneness scale in their review as a measure of contextual-legitimate guilt. It is possible that different relationships would be found if other measures of guilt were used, such as those which are described by Kim and colleagues as measuring maladaptive guilt. Fifth, outcomes of this study were based on self-report. Given recent controversies regarding the assessment of mindfulness with self-report measures (Brown, Ryan, Loverich, Biegel, & West, 2011; Grossman, 2011), future research could include corroborating measures of low mindfulness (or mind wandering) such as target error rates or event-related potentials (Davidson, 2010; Smallwood, Beach, Schooler, & Handy, 2008). In addition, shame could also be measured using behavioral indicators such as characteristic nonverbal indicators of shame that are coded from video-recorded interviews (Randles & Tracy, 2013).

Finally, this study used a correlational design, in which meditation experience may be confounded with personality characteristics. For example, meditators may be more open to experience and less conscientious than nonmeditators (van den Hurk et al., 2011). Future research could usefully employ designs involving shame and guilt inductions and then assess the effects of meditation interventions on these emotions.

In conclusion, this study draws attention to the complex relationships of shame, guilt, mindfulness, and self-compassion. We suggest that it is important to distinguish between the self-conscious emotions of shame and guilt. Furthermore, the roles of self-compassion and mindfulness interventions in reducing shame deserve further exploration so that reliable interventions for alleviating the affective and interpersonal problems associated with shame may be developed.

Notes

1. Partial correlations of shame-free guilt with individual SCS factors were statistically significant only for the common humanity (.22) and mindfulness (.26) factors. Partial correlations with shame-proneness were negative and statistically significant for all SCS factors.

2. Correlations of FFMQ total with SCS factors were self-kindness (.55), self-judgment (.57 reversed), common humanity (.39), isolation (.54 reversed), mindfulness (.62) and overidentification (.60 reversed).

3. Analysis of differences across the SCS factors for frequency of meditation practice in the present study using MANOVA showed that participants who meditated more than once per month obtained higher scores than the two other groups for self-kindness, common humanity, mindfulness, and overidentification but not self-judgment or isolation.

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