Forgiveness, rumination, and depression in the United States and Korea: A cross-cultural mediation study

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Abstract

Objective: Although substantial research has separately investigated forgiveness, rumination, and depression in the United States, few studies have investigated all three constructs in the same sample and we know of no studies that have examined how forgiveness, rumination, and depression are interrelated across cultures.

Method: To address this issue, we conducted a cross-cultural study wherein 204 and 297 healthy young adults from Korea and the United States, respectively, completed the Heartland Forgiveness Scale, Ruminative Response Scale, and Beck Depression Inventory-II.

Results: Compared to US participants, Korean participants exhibited more forgiveness, similar levels of rumination, and slightly more depression. Two-group structural equation models revealed that forgiveness was directly related to depressive symptoms, and that forgiveness was indirectly related to depressive symptoms through rumination, in both the United States (proportion mediated = 0.363) and Korea (proportion mediated = 0.394). This indirect association did not differ across cultures.

Conclusion: Considered together, these results suggest that forgiveness appears to have beneficial effects on depression that are mediated through forgiveness-related reductions in rumination, and, importantly, that these effects are similar across cultures.

Keywords

culture; depressive symptoms; forgiveness; mediation model; resilience; rumination

1 | INTRODUCTION

Research has demonstrated that forgiveness is associated with both rumination and depression (Çolak & Güngör, 2021; McCullough et al., 2007). Additionally, an abundance of research has shown that rumination plays an important role in promoting depression (Kovács et al., 2020). Given these associations, some researchers have examined the extent to which the association between forgiveness and depression is mediated by rumination (e.g., Berry et al., 2005; Brooks & Toussaint, 2003; Ysseldyk et al., 2007). Furthermore, theoretical models have been developed wherein rumination is proposed as a key mechanism by which forgiveness influences mental health (Griffin et al., 2015; Toussaint & Webb, 2005).

Although this research has revealed associations between forgiveness, rumination, and depression, this work has been limited insofar as it has largely studied westernized cultures. Moreover, when multicultural research has been done, unvalidated measures have sometimes been used, and limited analyses, such as Baron and Kenny's (1986) causal steps mediation models, have been employed. To address these important issues, we pursued two key aims. First, we compared levels of trait forgiveness, rumination, and depression in the United States and Korea. Second, we examined a model of how trait forgiveness acts indirectly through rumination to correlate with depression and determined if this model varied across these two cultures.

One key difference between the United States and Korean cultures involves individualistic versus collectivistic orientations (Diener et al., 2000; Hofstede, 1980, 2001; Markus & Kitayama, 1991). These differences may potentially impact processes such as forgiveness and rumination insofar as these macro-cultural perspectives could affect levels of or associations between the variables (Hook et al., 2008). A small body of theoretical and empirical work suggests that forgiveness should be higher in collectivistic cultures as compared to individualistic cultures (Kadiangandu et al., 2001, 2007; Paz et al., 2008; Suwartono et al., 2007). Expected cultural differences in rumination and depression remain less clear. Below, we review cultural studies bearing on each of these constructs and consider studies based on a mediation model of forgiveness, rumination, and depression, which are relevant for the present research.

1.1 | Culture and forgiveness

Theory suggests that culture may play a role in both the virtue and process of forgiveness (Hook et al., 2008; Leach & Parazak, 2015; Sandage et al., 2020; Sandage & Wiens, 2001; Sandage & Williamson, 2005). Sandage and Williamson (2005) posed two critical questions regarding the role of culture in forgiveness: (a) "Is forgiveness valued and practiced in similar ways across cultures?" (p. 41) and (b) "How do particular cultural and contextual factors influence individual and group processes of forgiveness and unforgiveness?" (p. 41). Hook et al. (2008) described how culture may influence cognitive and emotional aspects of forgiveness and suggested that in collectivistic cultures, individuals may be more likely to engage in decisional forgiveness (i.e., cognitively based forgiveness) than emotional forgiveness out of concern for avoiding conflict and restoring relational harmony. Sandage and Wiens (2001) and Sandage and Williamson (2005) highlighted several important characteristics of culture (e.g., power, control, individualism–collectivism) that

may influence forgiveness and they suggested that collectivistic orientations, in particular, may positively influence forgiveness.

Similarly, Hofstede et al. (2010) described several characteristics by which cultures differ (e.g., individualism-collectivism, power distance, uncertainty avoidance, masculinity-femininity, long- vs. short-term orientation, and indulgence vs. restraint), and Leach and Parazak (2015) argued that we need a better understanding of the forgiveness construct in the context of these cultural similarities and differences in order for forgiveness research to move forward. Finally, Sandage et al. (2020) suggested that although there are some cultural similarities in (a) willingness to forgive, (b) predictors of interpersonal forgiveness (e.g. apology), and (c) types of offenses that require forgiveness (e.g., bullying, arguments), there are also many cultural differences. Sandage et al. (2020) highlighted individualistic-collectivistic differences in motives to forgive, for instance, intrapersonal motives (e.g., emotional relief) that are more common in individualistic societies compared to interpersonal (e.g., relational) motives that are more common in collectivistic cultures.

Given the theoretical arguments for the role of culture in forgiveness, cross-cultural empirical examinations of forgiveness have been carried out. In fact, the investigation of forgiveness and mental health has become a multicultural, scientific enterprise and includes studies conducted in Canada, China, France, India, Netherlands, Portugal, South Africa, and the United States, among other countries (e.g., Worthington & Cowden, 2017; Ysseldyk et al., 2007; Zhang et al., 2020). At the same time, however, many studies have not used cross-cultural methods or cross-culturally validated instruments to assess forgiveness or its association with mental health-related processes such as stress, rumination, and depression. A notable exception is research by Mullet and colleagues (Kadiangandu et al., 2001, 2007; Mullet & Neto, 2020; Paz et al., 2008; Sandage et al., 2020; Suwartono et al., 2007), who have developed a measure of forgiveness and confirmed its reliability and validity in several different cultures. This research has permitted a careful inspection of forgiveness and its cultural determinants.

Generally speaking, this research has revealed that collectivistic cultures tend to be more forgiving and less resentful on average than individualistic cultures (Mullet & Neto, 2020; Sandage et al., 2020). Collectivistic and individualistic cultures share some common understanding of recognizing a transgression and canceling debts, but collectivistic cultures also appear to more so conceptualize forgiveness in terms of its importance in interindividual processes, such as reconciliation (Ho & Worthington, 2020; Joo et al., 2019). However, one study of collectivistic Chinese individuals, as compared to Western-Europeans, has shown similar levels of forgiveness and higher levels of resentment and greater tendency to expect such things as reparations and apology (Paz et al., 2008). However, participants were not collected through population-based samples and religious affiliation was confounded with culture, as the Western-European sample was exclusively Christian in belief and the Chinese sample was comprised of individuals with Buddhist, Taoist, or other faith beliefs.

Given this body of research linking culture to forgiveness, a first aim of the present study was to test the hypothesis that collectivists are more forgiving than individualists. We did

this using cross-culturally validated measures in samples from two countries—the United States and Korea—that differ considerably on the construct of individualism–collectivism. Comparing US participants to Korean participants is ideal because they differ substantially on individualism and collectivism. In one study, for example, Hofstede (2001) found that out of 50 countries examined, the United States ranked first on individualism whereas Korea ranked 43rd. Based on the relatively consistent trend in the literature, we hypothesized that Korean participants would exhibit higher levels of forgiveness as compared to US participants.

1.2 | Culture, rumination, and depression

We also tested for cross-cultural differences in levels of rumination and depression. A couple of studies informed our investigation of these constructs. First, Maxwell et al. (2005) studied angry rumination in the collectivistic culture of Hong Kong and the individualistic culture of Great Britain. They found that participants from Hong Kong had higher ruminative tendencies and stronger motives toward revenge as compared to participants from Great Britain. Second, Park and Bernstein (2008) studied rumination in Korean-American immigrants and in a separate study Treyner et al. (2003) examined rumination in a US sample. Third, Kwon et al. (2013) found that Korean students, as compared to US students, exhibited higher levels of ruminative brooding. Fourth, Chang et al. (2010) reported that Asian American college students showed higher levels of rumination compared to European American students. And fifth, in a recent review, De Vaus et al. (2018) concluded that Asian individuals tend to think about negative emotions (i.e., ruminate) more often than US individuals but in less threatening ways that include more objective self-reflection and less self-focused brooding and regret.

Comparing across studies, the data suggest that ruminative tendencies are higher among Korean–American immigrant individuals than for nonimmigrant American individuals. Park and Bernstein (2008) argued that in Korea, the importance of Confucianism, family integrity, group conformity, and gender roles may create a generalized reflective cognitive thought pattern that promotes ruminative tendencies. Based on this research, we hypothesized that Korean participants in our sample would exhibit higher levels of ruminative tendencies than US participants.

When considering cultural differences in psychiatric disorders such as depression, it is important to note the etic and emic nature of assessment (Patel, 2001). From an emic perspective, cultural differences in the prevalence of depression may exist, but these differences may be due to cultural differences in diagnostic thresholds, expression of symptoms, or risk factors (S. Chang et al., 2008; Weissman et al., 1996). Furthermore, Hwabyung, a culturally specific form of psychosomatic expression of interpersonal stress and anger, may not be accurately identified as a part of Korean expression of depression (Park & Bernstein, 2008). Although emic efforts to develop assessment instruments that are more culturally appropriate for Koreans have been made (Cho & Kim, 1998), there is no standard assessment strategy that provides an equivalent psychiatric assessment across the United States and Korea. Hence, using a more etic approach, the World Health Organization (WHO) has developed structured diagnostic interviews that can be used to assess psychiatric

conditions worldwide (WHO, 1990, 1997a, 1997b). Using this type of diagnostic interview, Chang et al. (2008) documented lower levels of major depressive disorder in Korea (4% prevalence) as compared to the United States (17% prevalence). Ohayon and Hong (2006) also have shown much lower prevalence rates of major depressive disorder in Korea (4% prevalence). Based on these findings and the use of our etic measurement approach, we hypothesized that depressive symptoms would be lower in our Korean versus US participants.

1.3 | Culture and associations between forgiveness, rumination, and depression

To our knowledge, most of the research on forgiveness, rumination, and depression has been conducted in the United States. These empirical studies have shown that forgiveness is strongly related to rumination (Berry et al., 2005; Brooks & Toussaint, 2003; McCullough et al., 2001, 2007). A growing body of research has also connected forgiveness to mental health and well-being (for reviews, see Toussaint & Cheadle, 2009; Toussaint & Webb, 2005; Webb & Toussaint, 2020). Finally, and relevantly, research has demonstrated that rumination is a key cognitive feature of depression (Kovacs et al., 2020; Nolen-Hoeksema, 1987, 1991).

Considered together, this research indicates that (a) forgiveness is associated with rumination, (b) forgiveness relates to depression, and (c) rumination is common in depression. These relations between forgiveness, rumination, and depression have been brought together in a mediation model by Toussaint and Webb (2005) and tested by Berry et al. (2005), Brooks and Toussaint (2003), and Ysseldyk et al. (2007). In these empirical studies, forgiveness, rumination, and depression were measured in the same participants, which enabled the researchers to investigate the extent to which forgiveness and depression were related through rumination. In these studies, the association between tendencies toward forgiveness and depressive symptoms was partially mediated by ruminative tendencies. Based on this literature, we hypothesized a mediation model of forgiveness, rumination, and depression in the present study.

1.4 | Present study

To our knowledge, no studies have specifically tested a cross-cultural mediation model of forgiveness, rumination, and depression. This is a critical omission in the literature that should be addressed for two reasons. First, cultural influences on forgiveness, rumination, and depression are apparent, and models of these constructs may or may not be the same across culture. Second, our understanding of important predictors/correlates of depression is crucial, as depression is one of the most common and costly of all psychiatric disorders and represents a substantial burden to human health and wellbeing (Slavich & Auerbach, 2018; Slavich & Irwin, 2014; Slavich & Sacher, 2019; Slavich et al., 2020). This is particularly true for young and otherwise healthy college students who show alarmingly high rates (upwards of 30% prevalence) of mental illness worldwide (Auerbach et al., 2016); hence, the need to help these young adults is more pressing now than ever. Based on the above literature review, we developed the following hypotheses. First, we hypothesized that Korean participants would exhibit higher levels of trait forgiveness and rumination and lower depression, on average, as compared to US participants. Second, we hypothesized that a

mediation model of the associations between trait forgiveness, rumination, and depression would be a good fit to the data, and that this model would be equally applicable across Korean and US cultures.

2 | METHOD

2.1 | Participants & procedure

2.1.1 | Korean—Korean participants were 204 healthy young adults recruited from a university community in Seoul, Korea. The sample was comprised of approximately equal proportions of males (52%) and females (48%), with a mean age of 21.39 years (SD = 2.17). Participants completed questionnaires that included measures of dispositional forgiveness, rumination, and depressive symptoms (see below).

2.1.2 | United States—US participants were 297 healthy young adults recruited from a college community in the upper Midwestern region of the United States. The US sample was comprised of a slightly greater proportion of females (64%) than males (36%), with a mean age of 19.17 years (SD = 2.36). As with the Korean sample, participants completed questionnaires that included measures of dispositional forgiveness, rumination, and depressive symptoms (see below). The two samples differed in terms of both biological sex ($\chi^2 = 12.56$, $p < 0.001$, $\phi = -0.16$) and age ($F = 113.70$, $p < 0.001$, $\eta^2 = 0.19$).

2.2 | Measures

2.2.1 | Trait forgiveness—Trait forgiveness was assessed using the Heartland Forgiveness Scale in both its English- (Thompson et al., 2005) and Korean-validated versions (Hong et al., 2016). This is an 18-item scale that measures dispositional forgiveness of oneself (6 items), others (6 items), and situations (6 items). The 18-item total score represents overall tendencies to be forgiving across time and situations, and was the measure used in this study. Participants responded to the items on a 1 (*almost always false of me*) to 7 (*almost always true of me*) Likert-type scale. The instrument has good reliability and validity, with alphas ranging from 0.75 to 0.87 (Thompson et al., 2005) in the United States, and 0.80 in Korea (Hong et al., 2016). In the present study, alphas were 0.76 in Korea and 0.88 in the United States.

2.2.2 | Rumination—Rumination was assessed using the Ruminative Responses Scale in both its English- (Treyner et al., 2003) and Korean-validated versions (Shin et al., 2015). This is a 22-item scale consisting of 5 brooding items, 5 reflection items, and 12 depressive rumination items. The 22-item total score represents overall ruminative response tendencies and was the measure used in this study. Participants used a 1 (*never*) to 4 (*always*) Likert-type scale to respond. The Ruminative Responses Scale has been shown to be reliable and valid in both the United States and Korea (Shin et al., 2015; Treyner et al., 2003). Both Treyner et al. (2003) and Shin et al. (2015) have reported acceptable alphas (0.70) in the United States and Korea, respectively. In the present study, alphas were 0.90 in Korea and 0.94 in the United States.

2.2.3 | Depression—The Beck Depression Inventory-II (Beck et al., 1996) in both its English- (Beck et al., 1996) and Korean-validated versions (Song et al., 2012) consists of 21 items and was used to measure emotional, cognitive, motivational, and somatic symptoms of depression. This is a 21-item measure where each item is responded to on a 4-point scale. The inventory has been shown to be reliable and valid in both the United States and Korea (Beck et al., 1996; Song et al., 2012). Beck et al. (1996) reported alphas > 0.90 in the United States, and Song et al. (2012) reported an alpha of 0.88 in Korea. In the present study, alphas were 0.74 in Korea and 0.91 in the United States.

2.3 | Analyses

Analyses were conducted in three phases. First, analyses of variance were used to examine differences in levels of trait forgiveness, rumination, and depression across culture. Second, bivariate correlations between trait forgiveness, rumination, and depression were conducted, as were significance tests investigating possible differences in correlations across cultures. Third, mediation models were conducted to examine the indirect association of trait forgiveness predicting depression through rumination (trait forgiveness → rumination → depression), as well as the reverse conceptual model wherein depression predicted trait forgiveness through rumination (depression → rumination → trait forgiveness). These models were inspected for cross-cultural concordance; additionally, the mediation models were run both with and without sex and age as control variables, with the results being virtually identical. Hence, we report the more parsimonious models without these control variables. All analyses were run using R. Data were inspected and met normality and linearity assumptions of statistical hypothesis testing. Statistical significance was set at $p < 0.05$.

3 | RESULTS

3.1 | Cultural differences in levels of forgiveness, rumination, and depression

Descriptive statistics are included in Table 1. As hypothesized, trait forgiveness levels were higher for Korean participants ($M = 65.71$, SD = 11.28) than for US participants ($M = 55.71$, $SD = 14.08$), $F(1, 499) = 71.43$, $p < 0.001$; $\eta^2 = 0.13$. The size of this difference can be regarded as large (Cohen, 1977). Unexpectedly, US participants ($M = 44.98$, $SD = 13.34$) and Korean participants ($M = 43.66$, $SD = 11.23$) did not differ with respect to their ruminative tendencies, $F(1, 499) = 1.35$, $p = 0.25$; $\eta^2 = 0.003$. Although there was a statistically significant difference between US participants ($M = 9.58$, $SD = 8.55$) and Korean participants ($M = 11.21$, $SD = 5.92$) in terms of depressive symptoms, $F(1, 499) = 5.57$, $p < 0.05$; $\eta^2 = 0.01$, the magnitude of difference was relatively small (Cohen, 1977).

3.2 | Cultural differences in associations between forgiveness, rumination, and depression

3.2.1 | Bivariate analyses—Bivariate correlations between the main study variables are included in Table 1. Trait forgiveness was moderately strongly and inversely related to depression in both samples (US: $r = -0.53$; Korean: $r = -0.33$), and the magnitude of these associations differed significantly between the samples, $Z = 2.73$, $p = 0.006$. Trait forgiveness was also moderately strongly and inversely associated with rumination (US: $r =$

−0.40; Korean: $r = -0.30$), and the magnitude of these correlations did not differ between the samples, $Z = 1.18$, $p = 0.238$. Rumination was associated with depression in both cultures (US: $r = 0.62$; Korean: $r = 0.49$), and the association between rumination and depression differed between the samples, $Z = 2.10$, $p = 0.036$. In sum, trait forgiveness was inversely associated with depression and rumination, and rumination was positively associated with depression within each culture.

3.2.2 | Mediation analyses—To test whether rumination mediated the association between trait forgiveness and depression, and whether this mediation effect differed between the two cultures, we examined mediation in a two-group structural equation model (Figure 1). First, we estimated all paths for each culture separately. In this model (CFI = 1.00; SRMR < 0.001; BIC = 7120.8), we found that in both cultures, trait forgiveness was significantly and inversely associated with both rumination (i.e., the a path in mediation; US: $\beta = -0397$, $p < 0.001$; Korean: $\beta = -0.303$, $p < 0.001$) and depression (i.e., the c' path in mediation; US: $\beta = -0.338$, $p < 0.001$; Korean: $\beta = -0.200$, $p = 0.001$). Additionally, in both cultures, rumination was significantly and positively related to depression (i.e., the b path in mediation; US: $\beta = 0.486$, $p < 0.001$; Korean: $\beta = 0.428$, $p < 0.001$). Most importantly, in both cultures, the mediation paths from trait forgiveness to depression through rumination were significant (US mediation path = −0.193, $p < 0.001$; Korean mediation path = −0.130, $p < 0.001$), with rumination mediating a substantial proportion of the trait forgiveness and depression association in both cultures (US proportion mediated = 0.363; Korean proportion mediated = 0.394).

To test whether the mediation paths were different between the two samples, we next constrained paths to equality and examined changes in model fit. This model that constrained indirect paths to equality across cultures (i.e., a_{US}/a_{Korean} to a, and b_{US}/b_{Korean} to b) did not significantly differ in fit (CFI = 0.992; SRMR = 0.041; BIC = 7113.0) from the model without these constraints, $\chi^2(2) = 4.63$, $p = 0.10$. Therefore, rumination mediated the association between trait forgiveness and depression consistently across cultures.

3.2.3 | Reverse mediation analyses—Finally, we investigated whether the associations observed between trait forgiveness, rumination, and depression were better fit by a reverse mediation model—namely, a mediation model with trait forgiveness regressed on both rumination and depression, with an indirect link between depression and trait forgiveness through rumination. We used BIC to compare this mediation model to the nonnested primary mediation model described above. Doing this revealed that both the unconstrained (BIC = 7680.2, BIC = 559.4) and constrained (BIC = 7668.4, BIC = 555.4) reverse mediation model fit the data substantially worse than our theoretically driven mediation model. In sum, therefore, trait forgiveness predicting depression through rumination is a better fit to the data than depression predicting trait forgiveness through rumination.

4 | DISCUSSION

Although large bodies of research exist on the separate topics of forgiveness, rumination, and depression, much of this study has been conducted in the United States and we know

of no studies that have specifically examined cross-cultural differences in how forgiveness, rumination, and depression are interrelated. This is a critical omission for two reasons. First, this means that our present understanding of forgiveness, rumination, and depression is based almost entirely on a westernized perspective, which may or may not generalize to other cultures or countries. Second, although forgiveness may be a promising social-cognitive target for reducing rumination and risk for depression, understanding the role that forgiveness plays in shaping ruminative and depressive symptoms is a necessary first step in developing cross-cultural interventions for alleviating depression, a very common and costly disorder in both college students and the population at large. The overarching goal of this study was to address these issues, and the resulting data yielded several novel findings along these lines, which we discuss in turn below.

4.1 | Cultural differences in forgiveness, rumination, and depression

First, as hypothesized, Korean participants reported higher levels of overall trait forgiveness than US participants. This finding is consistent with prior empirical work showing higher trait forgiveness levels in collectivistic cultures (i.e., Congo, Indonesia) as compared to an individualistic culture (i.e., France) (Kadiangandu et al., 2001, 2007; Suwartono et al., 2007). In addition, however, it expands these cross-cultural comparisons to include the United States and Korea.

The present findings also provide an interesting contrast to those of Paz et al. (2008), who found that Chinese respondents reported higher levels of resentment and greater sensitivity to the circumstances of an offense as compared to Western Europeans. Paz et al.'s (2008) findings showed a disinclination toward forgiving tendencies in the collectivistic society and a stronger inclination in the individualistic society. These findings are contrary to those of the present study and also the broader literature. Given that there are numerous geographic, socio-demographic, and cultural similarities between China and Korea, one might expect similarities in forgiveness. Such is not the case. Perhaps the differences in religious faiths in Paz et al.'s (2008) sample supersede the influence of individualism–collectivism. Although similar in individualistic–collectivistic orientations, China and Korea differ greatly in their religious makeup (Pew Research Center, 2012) as well as other broader cultural aspects. For instance, there are almost six times as many Christians in Korea (29%) as compared to China (5%); furthermore, there are more Buddhists (23% vs. 18%), but fewer unaffiliated (46% vs. 52%) and folk religious adherents (1% vs. 22%) in Korea as compared to China, respectively. Religious and other unmeasured cultural differences between these two cultures may thus help explain the discrepancy between the findings by Paz and colleagues and the present study as well as several prior reports (Kadiangandu et al., 2001, 2007; Suwartono et al., 2007).

The present study's findings are also consistent with the theoretical models proposed by Sandage and Wiens (2001), Sandage and Williamson (2005), and Hook et al. (2008). Sandage et al. (2020) summarized relevant explanations regarding why trait forgiveness might be higher in a collectivistic versus individualistic culture. First, they suggested that collectivists may be more inclined to value reconciliation and relational repair. Second, collectivists may see social harmony as a strong motivator of forgiveness, particularly

making the decision to forgive (a key step in developing trait forgiveness). Third, collectivistic cultures may promote causal attributions that are less focused on blaming individuals and promote understanding the circumstances in which hurtful experiences occur, thereby promoting forgiveness. Collectivistic cultures may also promote pro-social emotions that prompt social engagement and approach behaviors, as opposed to avoidance, aimed and resolution of conflicts and relational repair.

Our first hypothesis also considered cultural differences in rumination and depression. Although existing evidence led us to hypothesize that Korean participants would exhibit higher levels of rumination than US participants (Chang et al., 2010; Kwon et al., 2013; Maxwell, 2005; Park & Bernstein, 2008; Treyner et al., 2003), the present data revealed no such differences in rumination. However, there are important differences between the present and prior research that should be noted. For example, Maxwell et al. (2005) showed that angry rumination was higher in collectivistic Hong Kong than in individualistic Great Britain but there are critical differences in the types of rumination that were measured in that study versus the present study. In the present study, rumination was measured using the Ruminative Responses Scale, which focuses largely on cognitive and attributional aspects of the depressive experience. In contrast, Maxwell et al. (2005) measured angry rumination. The focus of angry rumination is on the cognitive and affective experience of angry memories, thoughts of revenge, and angry afterthoughts. Hence, it appears that Koreans may be more likely to engage in only one specific type of rumination—that of angry rumination.

Angry rumination, but not other kinds of rumination, may also overlap substantially with the psychosomatic expression of interpersonal stress and anger known as hwabyung. Hwabyung is a cultural syndrome that is thought to be specific to Koreans that results from socialization that emphasizes the internalization of emotions (Lee et al., 2014). Suppression of emotion results in a unique set of somatic and psychological symptoms such as racing heart, tightness in the chest, headache, indigestion and emotional factors including anxiety, anger, and depression. It is more commonly experienced by women but also affects men and it results from stressful life circumstances and victimization. The suppression of normal negative emotions in response to adversity leads to anger, hatred, and internalized frustration leading to the development of hwabyung. Because hwabyung bears similarities to both rumination and depression but is not synonymous with either (Min et al., 2009; Song et al., 2003), it is important to recognize that both levels and associations of rumination and depression may be attenuated. However, because hwabyung is a cultural syndrome with no equivalent in the United States, we did not attempt to assess or examine the construct in our models.

Other differences between prior research and the present study also exist. Perhaps most importantly, much prior work has examined Asian American and European American participants with little regard for the socialization processes that may have occurred, or the extent to which assimilation, accommodation, or multiculturalism (LaFromboise et al., 1993) may have taken place in Asian Americans and influenced thoughts, feelings, and motivations toward forgiveness. Owing to the idea of them being a "model minority" (Hartlep, 2021), Asian Americans may feel pressure to present themselves as more forgiving individuals in the United States. Alternatively, Asian Americans may engage in some

form of acculturation but also retain a strong ethnic identity (Choi et al., 2018) that promotes higher levels of forgiveness. The present study, on the other hand, specifically sampled participants from two contrasting cultures—Korea and the United States. Studies of immigrant populations in the United States remain incredibly important, but for a clear understanding of cross-cultural differences in forgiveness, rumination, and depression, we believe it is important to sample individuals living in separate cultures as opposed to comparing groups within a single culture.

Regarding cultural differences in depression, we hypothesized that Korean participants would exhibit lower depressive symptom levels than US participants. This was not the case. Instead, Korean participants exhibited higher levels of depressive symptoms than our US participants. However, the effect size of this difference was small and only a fraction of the size of the difference between cultures on forgiveness.

4.2 | Cultural differences in the mediated model

With only three related studies on the topic (Berry et al., 2005; Brooks & Toussaint, 2003; Ysseldyk et al., 2007), our second aim was to investigate the existence of the trait forgiveness → rumination → depression model and to examine its cross-cultural reliability. Our second hypothesis was that this model would fit well for the US and Korean samples, and as expected, the model performed equally well in both cultures. The proportion of the trait forgiveness and depression association that was mediated by rumination was substantial and very similar between the United States (proportion mediated = 0.36) and Korea (proportion mediated = 0.39). Although Korean participants reported higher levels of trait forgiveness, on average, than US participants, the role that rumination played in mediating the relation between trait forgiveness and depression was very similar across cultures. These findings are consistent with Berry et al. (2005) and Brooks and Toussaint (2003) who studied US samples, and with Ysseldyk et al. (2007) who used a multicultural sample.

There are a few reasons why the findings from the mediated model are worth further investigation. First, collectivism seems to facilitate forgiveness, but does not influence rumination. Hence, cultural factors are having an impact on the initial variable in the model, which is similarly conveyed to the mediator. An important focus for future research would be to examine the benefits of interventions aimed at increasing forgiveness as compared to interventions aimed at decreasing rumination. Recent intervention studies in Asian populations (e.g., Toussaint et al., 2020) have shown that forgiveness interventions can improve forgiveness, negative emotions, and self-esteem. To what extent these interventions might also positively affect rumination to improve mental health remains an open question. Second, is there an additional mediator that should be measured in Korea that may capture Korean's natural tendency (Park & Bernstein, 2008) to engage in ruminative thought? Perhaps the experience of hwabyung is important for understanding the forgiveness, rumination, depression model. Assessing the experience of hwabyung in Koreans may allow for a more complete explanation of the association between forgiveness and depression in Korean culture. Future research may do well to examine this unique Korean construct.

4.3 | Strengths and limitations

A few strengths of the present study should be noted. First, a cross-cultural mediation model of forgiveness, rumination, and depression was examined for what we believe is the first time. Second, the measures employed were cross-culturally validated and showed good psychometric properties—something that has not always been true of cross-cultural studies of forgiveness. Finally, we focused on factors affecting depression, a disorder impacting large proportions of college students and adults, and which is a leading cause of morbidity and mortality worldwide (Monroe et al., 2014).

In addition, four main limitations should be highlighted. First, these are convenience samples of college students and the results may not generalize to other populations. Nevertheless, college students worldwide suffer high levels of mental health problems with some estimates suggesting upward of 30% of college students have a diagnosable psychiatric disorder (Auerbach et al., 2016). For this reason, it is important to specifically study college students to better understand new and important models of their mental health. Second, these data are cross-sectional, and causality and directionality cannot be assumed. Although a reverse mediation model did not fit the data better than the theoretically driven mediation model, it should be stressed that this fit improvement is statistical rather than causal, and it is not possible to infer temporal precedence or causality with these data. Third, we limited our investigation to assessments of dispositional forgiveness and rumination. Measures of offense-specific, state-like experiences of forgiveness and rumination exist and may be useful in future research on this topic. Finally, biological pathways that may underlie associations between forgiveness and depression have been discussed (e.g., Slavich et al., 2019; Slavich, 2020), but the present data do not speak to these potential biological mediators. Therefore, additional research is needed to investigate these and other mechanisms.

4.4 | Clinical implications

The implications of the present findings for clinical practice should focus on the potential importance of forgiveness and its connections to rumination and depression. Forgiveness interventions have been found to be efficacious in improving levels of forgiveness and mental health (Wade & Tittler, 2020). Clinicians who consider using forgiveness interventions with both US and Korean clients might expect not only resolution of grudges and hurt through forgiveness but also decreased rumination and depression. In Asian or Asian American clients who are suffering with hwabyung, the confluence of suppressed frustration, hatred, and anger may respond especially well to forgiveness interventions. Although the extent to which rumination is a mechanism of forgiveness intervention, per se, remains to be determined, the resolution of rumination alone is a laudable goal with patients suffering from mental distress as rumination is commonly linked to many mental health disorders (Kovács et al., 2020). Specific rumination-focused cognitive-behavioral approaches are available to clinicians (Watkins et al., 2011), and when the source of the rumination is based on a past offense, forgiveness interventions may be particularly useful. This may be even more so for Asian clients who are struggling with hwabyung where rumination is combined with hatred, frustration, and anger, all of which can be addressed through forgiveness.

4.5 | Conclusion

The present data provide the first evidence that we know of showing how trait forgiveness, rumination, and depression are related cross-culturally. Specifically, we found that Koreans showed much higher trait forgiveness, similar rumination, and slightly higher depression levels as compared to their US counterparts. Furthermore, we documented in both cultures the similarity of the mediation model linking trait forgiveness to depression through rumination. These findings add to a very small literature showing that collectivistic cultures tend to exhibit higher levels of trait forgiveness. However, we extended this study here to show that regardless of these differences on average levels of trait forgiveness, trait forgiveness translates into strong salubrious associations with rumination and depression in both cultures. Collectivistic cultural orientations no doubt bring enhanced social harmony and improve social relationships, perhaps through heightened value and practice of forgiveness. A question that remains unanswered involves to what extent virtues like forgiveness that are promoted by collectivism enhance mental health in these cultures. At present, it appears that trait forgiveness may help improve mental health regardless of culture, but additional research on this topic is warranted to investigate the robustness and generalizability of the present results.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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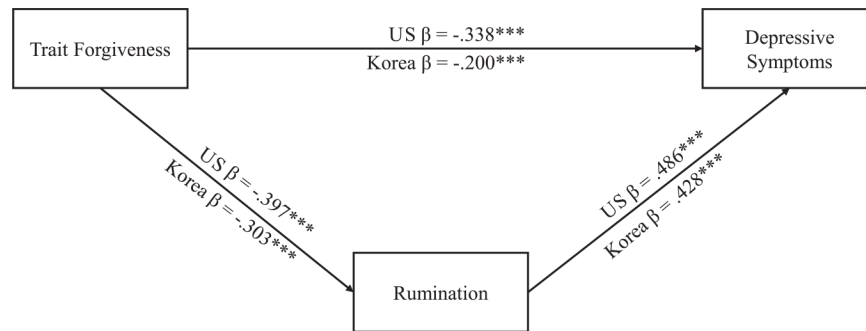
FIGURE 1.

Two-group structural equation forgiveness, rumination, depression mediation model. Direct effects are shown in the figure. Mediation paths from forgiveness to depression through rumination were significant (US mediation path = −0.193, $p < 0.001$; Korea mediation path = −0.130, $p < 0.001$), with a substantial proportion of the total association between forgiveness and depression mediated in both cultures (US proportion mediated = 0.363; Korea proportion mediated = 0.394). The mediation paths did not differ between the two cultures, $\chi^2(2) = 4.63$, $p = 0.10$. ($N = 501$).

TABLE 1

Means, standard deviations, and bivariate correlations between forgiveness, rumination, and depression for US participants (below diagonal) and Korean participants (above diagonal)

	US *M*	US *SD*	1. Trait forgiveness	2. Rumination	3. Depression
Korean *M*			65.71	43.66	11.21
Korean *SD*			11.28	11.23	5.92
1. Trait forgiveness	55.71	14.08	--	−0.30 ***	−0.33 ***
2. Rumination	44.98	13.34	−0.40 ***	--	0.49 ***
3. Depression	9.58	8.55	−0.53 ***	0.62 ***	--

***
p 0.001.