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Abstract

Across cultures, most people agree that forgiveness is a virtue. However, culture may influence how willing one should be to forgive and how one might express forgiveness. At a university in the United States, we recruited both foreign-extraction students and domestic students ($N = 102$) to participate in a six-hour REACH Forgiveness intervention. We investigated the efficacy of the intervention overall as well as whether foreign-extraction and domestic students responded differently to treatment. Forgiveness was assessed using two measures—decisional forgiveness and emotional forgiveness. The six-hour REACH Forgiveness intervention improved participants' ratings of emotional forgiveness, but not decisional forgiveness, regardless of their culture. Thus, the REACH Forgiveness intervention appears equally efficacious for participants from different cultural backgrounds when conducted in the United States with college students.

(126 words)

Key words: forgiveness, intervention, culture, collectivism, individualism

Efficacy of REACH Forgiveness across Cultures

Forgiveness has been investigated with increased frequency during the last 20 years (for a review and meta-analysis, see Fehr, Gelfand, & Nag, 2010), but relatively little has been done to investigate forgiveness in cultures other than the United States (USA) and Western Europe. For example, only 19 articles were identified in a review of forgiveness in collectivistic cultures (Hook, Worthington, & Utsey, 2009), and only 42 studies were included in a meta-analysis on political forgiveness outside of the United States (Van Tongeren, Burnette, O'Boyle, Worthington, & Forsyth, 2012). Despite the lack of current research, it is important to understand how forgiveness and forgiveness interventions function across cultures because culture shapes interpersonal relationships. Specifically, people from different cultures might consider certain offenses to be more or less severe, have different motivations to forgive, and report different levels of decisional and emotional forgiveness (Hook, Worthington, & Utsey, 2009). The present study examines the efficacy of the REACH Forgiveness intervention across cultures by including Western and non-Western populations.

Forgiveness is a process in which one may cope with distress after being harmed by another person (Fincham, 2000), and interventions have been shown to facilitate forgiveness among victims of offense (Wade, Worthington, & Meyer, 2005). Worthington (2006) identifies two different dimensions of forgiveness, namely *decisional* and *emotional forgiveness*. On one hand, people might respond to a forgiveness intervention by making a decision to forgive, which aims to modify one's intentions about one's behavior toward an offender such that one's desires for revenge and avoidance decrease and one treats the offender as a valuable person (Exline, Worthington, Hill, & McCullough, 2003). On the other hand, either independent from or alongside of decisional forgiveness, people may experience emotional changes. *Emotional*

forgiveness involves replacing negative emotions associated with unforgiveness with positive other-oriented emotions (such as empathy, compassion, or love for the offender; Worthington, 2006). Emotional forgiveness has been associated with a variety of mental health (Toussaint & Webb, 2005) and physical health (Worthington, Witvliet, Pietrini, & Miller, 2007) benefits.

Previous literature shows that culture might affect one's motivations to forgive, as well as the extent to which one engages in decisional forgiveness and experiences emotional forgiveness. Hook, Worthington, and Utsey (2009) proposed that people within individualistic cultures are more focused on reducing emotional, motivational, and cognitive discomfort; whereas, people in collectivistic cultures are more focused on restoring the relationship and not behaving in ways that threaten group solidarity. They suggested that decisional forgiveness is more important than emotional forgiveness in collectivistic cultures. On one hand, people in collectivistic cultures more readily express decisional forgiveness (i.e., intent to behave in ways that do not express negative emotions or motivations and treat the other person as a person of value) rather than emotional forgiveness (i.e., restoring inner harmony within an individual). On the other hand, among individualistic cultures, emotional forgiveness will take a higher relative importance than will decisional forgiveness because individualistic people are more often more concerned with personal peace than with how they might behave toward the offender. Furthermore, Ho and Fung (2011) postulated that individualists distinguish themselves from others and strive for personal benefits; thus, they may endorse more emotional forgiveness. Conversely, collectivists emphasize collective norms, social harmony and relationships; thus, they may endorse more decisional forgiveness. The REACH Forgiveness intervention spends considerably more time on promoting emotional forgiveness than decisional forgiveness; however, it does seek to promote both types. Thus, it is likely that the interventions to promote

emotional forgiveness might resonate more with individualistic people and interventions to promote decisional forgiveness might resonate more with collectivistic people.

Nevertheless, empirical research on forgiveness interventions in non-U.S. cultures is scant. We reviewed studies on forgiveness interventions in non-U.S. settings from 2005 through 2011. Only four intervention studies involving non-U.S. settings were identified during that time—two from Canada (Greenberg, Warwar, & Malcolm, 2010; Struthers, Dupuis, & Eaton, 2005), one from Ireland (Enright, Enright, Holter, Baskin, & Knutson, 2007), and one from the Philippines (Worthington et al., 2010)—and only one was from a primarily collectivistic country. Cross-cultural investigations of the efficacy and effectiveness of forgiveness interventions are needed to examine how people from collectivistic cultures respond to forgiveness interventions.

In the present study, we investigated the REACH Forgiveness intervention because it has been found to be efficacious in a wide range of populations (for a review and meta-analysis, see Wade, Hoyt, Worthington, & Kidwell, in press). For instance, the REACH Forgiveness model has been found to be efficacious for university students in secular state universities, couples, and parents (see Wade et al., in press). It has also been adapted to a generally collectivistic culture (i.e., the Philippines, Worthington et al., 2010) and to the Christian religion (Lampton, Oliver, Worthington, & Berry, 2005; Rye & Pargament, 2002; Rye et al., 2005; Stratton, Dean, Nooneman, Bode, & Worthington, 2008; Worthington et al., 2010). REACH is an acronym that identifies five steps through which victims may progress to achieve forgiveness: (R) Recall the hurt, (E) Empathize with the offender, (A) give an Altruistic gift of forgiveness, (C) Commit to Change, and (H) Hold on to forgiveness (Worthington, 2003). The efficacy of the REACH Forgiveness intervention is empirically supported by 22 randomized controlled trials (Wade et al., in press).

We aimed to examine whether the REACH Forgiveness intervention would be efficacious for participants from outside the U.S., and whether culture might influence one's response to the intervention. Participants were university students who were either (a) international students who came to the U.S. for a college education, foreign-born U.S. citizens, and first-generation children of immigrant parents, or (b) students who were born in the United States (i.e., Virginia). First-generation children of immigrant parents who were born in the U.S. were included in group A. Using an attribute-by-treatment wait-list control design, psychoeducational groups were composed of equal proportions of foreign-extraction students and domestic students who were randomly assigned into immediate treatment and wait-list control conditions. In order to test the fidelity of cultural differences between foreign-extraction and domestic students, we measured students' self-construal as collectivistic and individualistic.

Hypothesis 1 is a test of the efficacy of the REACH Forgiveness intervention among university students despite the influence of culture. Students who were randomly assigned to the immediate-treatment condition received treatment between t1 and t2; whereas, students randomly assigned to the wait-list condition served as a non-action control between t1 and t2. Those assigned to the wait-list condition received treatment between t2 and t3. Thus, we hypothesize differences in participants' levels of decisional and emotional forgiveness according to the following pattern: at t1, participants' scores will not differ significantly between conditions; at t2, participants assigned to the immediate treatment condition will report greater levels of decisional and emotional forgiveness relative to participants assigned to the wait-list condition; at t3, participants' scores will not differ significantly between conditions.

Hypothesis 2 posits that culture will moderate students' responses to the REACH Forgiveness intervention. We operationalized culture such that foreign-extraction students were

compared to domestic students in order to determine whether or not there was a main effect of country of origin on forgiveness outcomes (DFS and EFS) and whether or not country of origin moderated students' response to treatment. In particular, we hypothesize that foreign-extraction students and students who identify as more collectivistic would show a weaker response to the intervention on ratings of emotional forgiveness as well as a stronger response on ratings of decisional forgiveness relative to domestic students and students who identify as individualistic.

Method

Participants. Participants ($N = 102$) were female undergraduate students at a large Mid-Atlantic urban state university who participated as part of a course requirement or in exchange for a small amount of course credit. All participants were female to control for potential effects of sex on forgiveness (see Miller & Worthington, 2010; Miller, Worthington, & McDaniel, 2008, for a meta-analysis). Attrition resulted in including 78 participants for analysis. (See more details in the “inclusion for analyses” [below] and the CONSORT Flow Chart, Figure 1.) Age ranged from 18 to 38 ($M = 19.00$, $SD = 3.31$). The sample included 36 foreign-extraction students (46.2%) and 42 domestic students (53.8%). Foreign extraction students came from a variety of global regions: North and South American region (26%), Western Pacific region (23%), African region (17%), Southeast Asian region (11%), European region (11%), Eastern Mediterranean region (11%).

Design. An experimental wait-list control design was employed. The wait-list control design can be displayed as follows, with O indicating an observation or assessment and X indicating treatment administration. The designation O_D indicates an observation occasion in which participants complete Demographics (and person variables) online, and the three

observation points (O_1 , O_2 , and O_3) are the three testing points prior to any treatment (O_1), one week later (O_2), and two weeks later (O_3).

$O_D O_1$ X O_2 O_3 (Immediate Treatment; IT)

$O_D O_1$ O_2 X O_3 (Waitlist Control; WC)

Based on prior experience with the wait-list design (which indicated that people in the control condition tend to drop out between t_1 and t_2), we randomly assigned participants to treatment conditions with a specification of overrepresentation in the wait-list condition.

Inclusion for Analyses. We excluded participants according to the criteria below. After consenting to participate in the study online and being randomly assigned to condition, some students decided not to participate due to various reasons (for WC, $n=3$, for IT, $n=3$). Some students did not complete the time 2 assessments, indicating withdrawal from the study (for WC, $n=8$, for IT, $n=0$). Some IT students did not complete the time 3 assessments (for IT, $n=2$), and some WC students did not show for the group or complete time 3 assessments (for WC, $n=7$). See Figure 1, the CONSORT Flow Chart, for more details.

REACH Forgiveness Psychoeducational Groups.

Manualized Groups. The 6-hour REACH Forgiveness intervention was manual-directed for leaders and participants. The secular version was used (www.people.vcu.edu/~eworth; www.EvWorthington-forgiveness.com), which has been used in many other studies to examine the efficacy of the REACH Forgiveness psychoeducational groups (e.g., Blocher & Wade, 2010; Kiefer et al., 2009; Sandage & Worthington, 2010; Wade & Meyer, 2009; Wade, Worthington, & Haake, 2009). Each group was conducted on one day for 6 hours of treatment, and continental breakfast and full lunch was provided. Due to attrition, 87 people completed the group treatment. Groups ranged in size from three to eight participants (mode of four), except in a single instance

where only one person showed up for the group; she was treated as an individual. Leaders directed participants through the aforementioned five-step process to REACH forgiveness.

Leaders. We followed the guidelines for best-practices in conducting psychoeducational forgiveness groups (Worthington, Sandage, & Berry, 2000). We recruited four group leaders (all women, as were our participants), with each leader running three groupings of IT-WC. Leaders conducted groups individually. However, to maintain balance, throughout each semester, leaders were yoked to each other, such that each leader ran an IT one week and a WC the next. They repeated this sequence 3 times during the semester; thus, groups within the experimental wait-list design were conducted three times during each semester. Yoked leaders were two pairs of female leaders, with each pair consisting of one foreign-extraction leader and one domestic leader. One pair was at the pre-bachelor's level of education; these conducted groups during the spring semester. One pair was at the post-master's in Counseling or Clinical Psychology level of education and professional training; these conducted groups during the fall semester of the following academic year.

Leader Training and Supervision. Leaders were trained using a 2-hour training DVD (Worthington, 2012), which illustrated the major interventions in REACH Forgiveness (secular) by excerpting an actual group and discussing questions about how to conduct the group. Weekly live supervision was mandatory for pre-bachelor's level leaders and was available for post-master's level leaders prior to the groups after viewing the DVDs individually. During group conduct, weekly supervision was provided for the pre-bachelor's leaders, but supervision was available on an as-needed basis for the post-master's leaders.

Fidelity of treatment. Sessions were audiotaped. Segments (i.e., 10 minutes, randomly selected from each hour) were compared to the manual. Two raters judged either essential

conformity to the manual or not for each 10-minute segment of audiotape. There was 100 percent essential conformity; inter-rater agreement was perfect.

Measures.

Demographic questionnaire. A demographic questionnaire included single-item questions such as age, marital status, ethnicity, religious affiliation and commitment, and country of origin.

Self-Construal Scale (SCS; Singelis, 1994). Individualism and collectivism refer to one's tendency to see oneself as independent or interdependent from others. The SCS consists of 24 items that measure one's tendency to think of oneself as independent or interdependent from others. Twelve items assess the independent self, and twelve items assess the interdependent self. Participants rate each item on a 7-point rating scale (1 = *strongly disagree* to 7 = *strongly agree*). In the present study, α for Collectivism was .87, and α for Individualism was .86.

Decisional Forgiveness: Decisional Forgiveness Scale (DFS; Worthington, Hook, Utsey, Williams, & Neil, 2007). The DFS consists of eight items that measure the degree to which one has made a decision to forgive someone of a specific offense (e.g., "If I see him or her, I will act friendly"; "I will try to get back at him or her," [reverse scored to indicate forgiveness]). Participants indicated their agreement with each item on a 5-point rating scale from 1 = *strongly disagree* to 5 = *strongly agree*. Scores on the DFS had α coefficients ranging from .82 to .86 (Worthington et al., 2007). The estimated 3-week temporal stability coefficient was .73 (Worthington et al., 2007). Scores on the DFS also showed evidence of construct validity. They were correlated modestly with other measures of state forgiveness, trait forgivingness, and forgiveness-related constructs, such as empathy and anger. DFS was differentiated from EFS on an implicit association test (Worthington et al., 2007) and by

correlation with peripheral physiology, cortisol level, and other physiological indices (McCrocklin, 2011). In the present study, $\alpha = .79$.

Emotional Forgiveness: Emotional Forgiveness Scale (EFS; Worthington et al., 2007).

The EFS consists of eight items that measure the degree to which one has experienced emotional forgiveness and peace for a specific offense (e.g., “I feel sympathy toward him or her”; “I no longer feel upset when I think of him or her”). Participants indicated their agreement with each item on a 5-point rating scale from 1 = *strongly disagree* to 5 = *strongly agree*. Scores on the EFS had α coefficients ranging from .69 to .83 (Worthington et al., 2007). The 3-week temporal stability coefficient was .73 (Worthington et al., 2007). Scores on the EFS also showed evidence of construct validity. They were correlated robustly with other measures of state forgiveness, trait forgivingness, forgiveness-related constructs such as empathy, rumination, and anger. The EFS was differentiated from the DFS on an implicit associations test (Worthington et al., 2007) and using physiological measures (McCrocklin, 2011). In the present study, $\alpha = .73$.

Procedure. Participants were recruited to participate through the university’s psychology department undergraduate research study website. Each person identified a particular offense within a group, such as a work group, sorority, family, student group, etc. (called the target transgression) that the participant would explicitly like to be able to forgive but at that time still considered hurtful and engendered unforgiving feelings. Participants signed up for the time (early, middle, or late in the semester) when they were available to attend the intervention. The participants were randomly assigned to either a Waitlist Control (WC) or Immediate Treatment (IT) group. Participants completed (a) online personal assessments; (b) three online assessments of the target transgression completed one week apart; (c) attendance of all 6 hours of a Friday (Spring semester) or Saturday (Fall semester) forgiveness group.

Results

Preliminary Data Analyses

We first dealt with missing data and outliers. Because less than 5% of the data was missing, the problems associated with missing data were not considered to be serious (Tabachnick & Fidell, 2001). To account for missing data, the mean score for each condition (either Foreign-extraction or Domestic; IT or WC) on the same date was imputed. Outliers ($n = 3$) were identified and adjusted to preserve the order of the data and to reduce the influence of outliers on the results by reducing the value of the outlier to one unit higher than the penultimate score. Means and standard deviations for both treatment conditions (IT v. WC) across three time periods (T1, T2, T3) are reported in Table 1. Intercorrelations among outcome variables are summarized in Table 2. Correlations ($n = 36$) were Bonferroni corrected to $p = .001$ to maintain an acceptable experimentwise alpha.

Hypothesis 1: The REACH Forgiveness Intervention Is Efficacious

Hypothesis 1 is a test of the efficacy of the REACH Forgiveness intervention to promote forgiveness. In order to test this hypothesis, a mixed $2 \times 3(S)$ [Condition \times time(S)] multivariate analysis of covariance (MANCOVA) with repeated measures was performed in which the effects of treatment on forgiveness outcomes (DFS and EFS) were examined in two conditions (IT v. WC) across three assessment occasions (t1, t2, t3) when controlling for hurtfulness of the offense and leaders' level of experience. The assumptions of normality, linearity, and homoscedasticity were met. Because the variances within each time point were unequal for participants' ratings of decisional forgiveness (Mauchly's $W = .82$, $p = .001$) and ratings of emotional forgiveness (Mauchly's $W = .87$, $p = .006$), the Huynh-Feldt epsilon was used to correct the degrees of freedom on the analyses.

Between-subject covariates included participants' self-report indication of the hurtfulness of the target offense and group leaders' level of experience. At the multivariate level, self-perceived hurtfulness of the transgression, Wilks's $\lambda = .939$, multivariate $F(2, 73) = 2.38$, $p = .100$, and leaders' level of experience, Wilks's $\lambda = .935$, multivariate $F(2, 73) = 2.55$, $p = .085$, approached significance. There was no effect of hurtfulness of the target offense for the DFS, $F(1, 72) = 2.56$, $p = .114$, but there was a significant effect of perceived hurtfulness for the EFS, $F(1, 72) = 5.20$, $p = .026$. The effect of leader's level of experience favored more experienced leaders for the DFS, $F(1, 72) = 6.44$, $p = .013$, and the effect approached significance for the EFS, $F(1, 72) = 3.02$, $p = .087$, in favor of more experienced leaders. All covariates were retained to examine the efficacy of the intervention after adjusting for the aforementioned effects.

The mixed MANCOVA was conducted to assess whether there were condition and time differences in levels of forgiveness (EFS & DFS). The main effect of time at the multivariate levels was not found to be significant, Wilks's $\lambda = .971$, multivariate $F(4, 71) = .523$, $p = .72$. Nevertheless, a multivariate condition x time(S) interaction, Wilks's $\lambda = .78$, multivariate $F(4, 71) = 4.95$, $p = .001$, showed a significant difference between the two conditions (IT v. WC) across three assessment occasions (t1, t2, t3). To determine the locus of the effect, univariate analyses were conducted. There was a significant interaction of condition x time(S) for EFS scores, $F(1.883, 139.344) = 6.77$, $p = .002$, but not for DFS scores, $F(1.795, 132.817) = 1.932$, $p = .153$.

Simple effects analyses were performed to test for differences in participants' EFS ratings between conditions across assessment occasions. Participants' emotional forgiveness scores did not differ between conditions at t1 ($p = .955$), the immediate-treatment condition ($M = 24.73$, SD

= 6.72) had higher scores than the wait-list condition ($M = 21.59$, $SD = 5.88$) at t_2 ($p = .032$), and scores did not differ between conditions at t_3 ($p = .414$). Finally, a paired-samples t -test was performed to demonstrate that, for participants assigned to the immediate treatment condition, EFS scores at follow up (t_3) differed significantly with scores at pre-test (t_1), $t(40) = 3.393$, $p = .002$, with follow up scores ($M = 25.41$, $SD = 5.70$) being greater than pre-test scores ($M = 21.80$, $SD = 5.90$)

In summary, after adjusting for hurtfulness of the offense and leaders' level of experience, students who participated in the REACH Forgiveness intervention (IT) reported greater increases in emotional forgiveness, but not decisional forgiveness, between pre- and post-treatment scores relative to the control condition (WC). Those assigned to the control condition made similar gains after receiving the intervention between t_2 and t_3 . And, gains achieved by students randomly assigned to the immediate treatment were maintained at a two-week follow up assessment. Hypothesis 1 was therefore generally supported, with the caveat that gains were observed among only emotional forgiveness scores and not decisional forgiveness scores.

Hypothesis 2: Culture Affects Response to the REACH Forgiveness Intervention

According to Hypothesis 3, we anticipated that culture would moderate participants' response to the REACH Forgiveness intervention. First, in order to determine whether country of origin ($0 = \textit{foreign-extraction}$, $1 = \textit{domestic}$) was a meaningful operationalization of culture in the present sample, we performed two independent-measures t -tests using country (Foreign-extraction v. Domestic) as the independent variable and SCS-Collectivism as well as SCS-Individualism as the dependent variables. Foreign-extraction students self-identified as more collectivistic ($M = 66.03$, $SD = 8.19$) than did domestic students ($M = 59.88$, $SD = 9.16$), $t(72) = 3.023$, $p = .003$. However, foreign-extraction students ($M = 62.88$, $SD = 7.64$) and domestic

students ($M = 63.13$, $SD = 9.66$) did not differ in the extent to which they identified as individualistic, $t(72) = .119$, $p = .906$. We therefore concluded that country was a good proxy for culture within our sample, but that the attending a university within the U.S., regardless of country, was associated with individualistic self-construal.

We assessed participants' response to the intervention by aggregating pre- and post-treatment ratings for both treatment conditions across time periods (IT: t1 & t2; WC: t2 & t3). Prior to the analyses, pre-treatment scores were centered and a product term was created as recommended by Baron and Kenny (1986). A regression-based approach to testing moderation was applied, using post-treatment scores on forgiveness outcomes (DFS, EFS) as the dependent variables, pre-treatment scores as the independent variable, and country (foreign-extraction v. domestic) as the moderating variable. Distributional assumptions were met, and the predictors were not highly correlated. Results of the moderation analyses are reported in Table 3.

For participants' ratings of emotional forgiveness (EFS), pre-treatment scores positively predicted post-treatment scores ($\beta = .615$, $p < .001$). Also, country was significantly related to post-treatment scores ($\beta = .189$, $p = .036$); that is, domestic students reported higher levels of emotional forgiveness ($M = 27.12$, $SD = 5.75$) than did foreign-extraction students ($M = 23.94$, $SD = 7.44$). Country did not, however, moderate the impact of treatment on participants' ratings of emotional forgiveness ($\beta = .088$, $p = .441$). Although we did not observe a treatment effect for participants' ratings of decisional forgiveness, we investigated whether or not country influenced change in participants' decisional forgiveness scores. For participants' ratings of decisional forgiveness (DFS), pre-treatment scores positively predicted post-treatment scores ($\beta = .520$, $p < .001$). Results indicated that country was unrelated to post-treatment scores ($\beta = .115$, $p = .250$). However, the interaction between pre-treatment scores and country approached

significance ($\beta = -.238, p = .089; \Delta R^2 = .028, \Delta F = 2.97, p = .089$), indicating that foreign-extraction students may have benefited more strongly from the intervention with respect to making a decision to forgive relative to domestic students even though the REACH Forgiveness intervention is focused more strongly on the personal benefits of emotional forgiveness as opposed to the social benefits of decisional forgiveness. We also used continuous scores on individualism and collectivism to test for moderation; however, no significant differences were found. To avoid cluttering the article with findings that did not affect the interpretation of the findings beyond what we reported above, we did not report those analyses. They are available from the first author upon request. In summary, Hypothesis 3 was (at best) partially supported.

Discussion

In the present study, we investigated whether culture affected participants' responses to an evidence-based psychoeducational group intervention—the REACH Forgiveness intervention (for a meta-analysis of 21 efficacy studies, see Wade et al., in press). We operationalized culture by categorizing participants as either foreign-extraction or domestic students, and we investigated the effects of country.

The REACH Forgiveness intervention promoted forgiveness regardless of culture, which is consistent with many other empirical studies about the REACH Forgiveness model (McCullough et al., 1997; Sandage & Worthington, 2010; Worthington et al., 2010; Worthington et al., 2000). However, the promotion of forgiveness was only shown in emotional forgiveness, not decisional forgiveness (Exline, Worthington, Hill, & McCullough, 2003). Decisional forgiveness has not been assessed in previous research on the REACH Forgiveness intervention. Although we recruited both domestic students and foreign students, the study was still conducted in the U.S., a relatively high-individualistic culture. Furthermore, the REACH Forgiveness might

be described as *individualistic* itself; namely, the intervention more strongly emphasizes the personal benefits of emotional forgiveness as opposed to the social benefits of deciding to forgive an offender and not express an intention to harm or avoid another person.

Some evidence suggests that culture may influence response to treatment by forgiveness interventions, especially among participants that may be more strongly collectivistic and less individualistic as well as for interventions that may be different from the REACH model. In particular, we observed that foreign-extraction students experienced lower levels of emotional forgiveness overall. Also, even though the REACH Forgiveness intervention is not specifically designed to promote decisional forgiveness, culture may have impacted participants' changes in decisional forgiveness as a result of treatment. Future research might seek to further explain this effect. For example, does culture moderate the effect of treatment among populations that are starkly different with respect to collectivistic and individualistic values? Also, does culture moderate the effect of interventions designed to promote dimensions of forgiveness other than emotional forgiveness?

Hook, Worthington, and Utsey (2009) proposed a model of collectivistic forgiveness. They suggested that when people in collectivistic cultures forgive, they would more often be concerned with decisions to forgive (i.e., the intent to behave in ways that do not express negative emotions or motivations and treat the other person as a person of value) than with emotional forgiveness (i.e., restoring inner harmony within an individual). The results of the present study seem to suggest that, in conjunction with recent research in support of their theorizing (Hook et al., 2012), forgiveness and forgiveness interventions may serve different functions in different cultures. In the present study, there is little support for Hook et al.'s proposition regarding decisional forgiveness, given that the REACH Forgiveness intervention

allots less than one of six hours to promoting decisional forgiveness. However, it was observed that domestic students reported experiencing higher levels of emotional forgiveness when compared to foreign-extraction students. It may therefore be possible to adapt the REACH Forgiveness model to more adequately serve the goals of forgiveness in collectivistic cultures.

Limitations of the Present Study

A number of limitations qualify the present findings. First, we did not assess the transgressions for which participants sought forgiveness. It is possible that people who construe themselves as collectivistic might emphasize offenses that cause greater social damage while those who construe themselves as individualistic might emphasize offenses that cause greater personal damage. There is a need for a measure to be developed that might evaluate the extent to which participants perceive the consequences of an offense with a social context. Second, we conducted the study within an American university, where the extent to which students construed themselves as individualistic was homogenous for the most part. Our results might be different if there was a stronger contrast between the ways in which foreign and domestic participants construed themselves. Third, although we observed that participants in the immediate treatment condition maintained gains at a two-week follow-up assessment, longitudinal designs with greater duration are required to more strongly establish the lasting effects of the REACH Forgiveness intervention. Fourth, we assessed only females in the present study. Because women tend to emphasize the importance of social connections despite the cultures to which they belong, it is possible that our results might differ if only male participants had been studied.

Implications of the Findings for Future Research

In the present research, we revealed several questions that advance the research agenda on the REACH Forgiveness intervention and on interventions to promote forgiveness in general.

For example,

1. We found that foreign students who were functioning in a U.S. university responded only slightly differently than did domestic students to the REACH Forgiveness intervention. Future research needs to investigate whether foreign students in foreign countries benefit equally from the non-culturally accommodated and a culturally accommodated REACH Forgiveness intervention.
2. What degree of accommodation to culture might be necessary (if any) and sufficient (if it is found to be necessary) to have an efficacious REACH Forgiveness intervention for foreign students? Tests comparing different types and amounts of cultural accommodation are needed.
3. Might other psychoeducational group interventions, such as Enright's (Enright & Fitzgibbons, 2000), Luskin's (Luskin, 2001), or Rye's (Rye et al., 2005) result in the same pattern of results as the present study revealed, especially if they are directed at promoting dimensions of forgiveness other than primarily the emotional aspect?
4. Finally, cross-cultural examinations of forgiveness, such as the present study, require culturally sensitive validation studies for each measure. While work in this area has recently begun (Bugay, Demir, & Delevi, 2012), the expansion of forgiveness research around the globe and in settings other than Western cultures will only be authoritative if the present measures are demonstrated to be valid across cultures.

Conclusion

In the present study, we conducted a controlled intervention experiment using an experimental waiting list design. The findings are an important step in bringing forgiveness into more cultures. Results of the present study suggest that forgiveness interventions may be efficacious despite the influence of culture if conducted in the United States; however, the adaptation of forgiveness interventions for cultures that may be more strongly collectivistic and less strongly individualistic is a welcome progression.

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Table 1

Means and Standard Deviations of the Wait-List and Immediate-Treatment Conditions

Measure	Time 1		Time 2		Time 3	
	M	SD	M	SD	M	SD
<i>Wait-List Condition</i>	(Pre1)		(Pre2)		(Post)	
Decisional Forgiveness (DFS)	29.03	6.28	28.24	6.07	30.97	6.32
Emotional Forgiveness (EFS)	21.73	5.82	21.59	5.88	26.68	7.77
<i>Immediate-Treatment Condition</i>	(Pre)		(Post)		(Follow)	
Decisional Forgiveness (DFS)	27.73	5.28	29.29	4.92	30.95	4.54
Emotional Forgiveness (EFS)	21.80	5.90	24.73	6.73	24.41	5.70

Note. DFS range 8-40; EFS range 8-40.

Table 2

Means, Standard Deviations, Alphas, and Intercorrelations among Variables

Variables	Mean	SD	1	2	3	4	5	6
1.SCS-C	62.70	9.20	(.87)	.285+	-.063	.056	-.151	-.160
2.SCS-I	63.01	8.71		(.86)	-.033	-.063	-.022	-.107
3.T1_DFS	28.35	5.77			(.79)	.476*	-.401*	.063
4.T1_EFS	21.77	5.82				(.73)	-.253	-.172
5.DFS_Change	2.12	5.53						.391*
6. EFS_Change	3.95	5.89						

Note. SCS-C = Self-Construal Scale-Collectivism (range, 12-84); SCS-I = Self Construal Scale-

Individualism (range, 12-84); DFS = Decisional Forgiveness Scale (range, 8-40); EFS = Emotional

Forgiveness Scale (range, 8-40). The Change scores (items 7 through 9) represent the changes in scale

scores from post-treatment to pre-treatment; this combines people in the IT (t2-t1) and WC (t3-t2)

conditions.

+ $p < .01$, * $p < .001$ (Bonferroni corrected). Alpha values of scales in parentheses.

Efficacy of REACH Forgiveness for Foreign and Virginia Students

Table 3

Hierarchical Multiple Regression Analyses Predicting Post-Treatment Forgiveness Ratings From Pre-Treatment Ratings and Country

Predictor	Forgiveness Outcomes			
	DFS		EFS	
	ΔR^2	β	ΔR^2	β
Step 1	.271**		.378**	
Pre-test		.520**		.615**
Step 2	.013		.036*	
Country		.115		.189*
Step 3	.028 [†]		.005	
Pre-test x Country		-.238 [†]		.088
Total R ²	.311**		.419**	
<i>n</i>	78		78	

Note. [†] $p < .10$, * $p < .05$, ** $p < .001$

Figure 1.

CONSORT Flow Chart depicting Students' Progress through Treatment

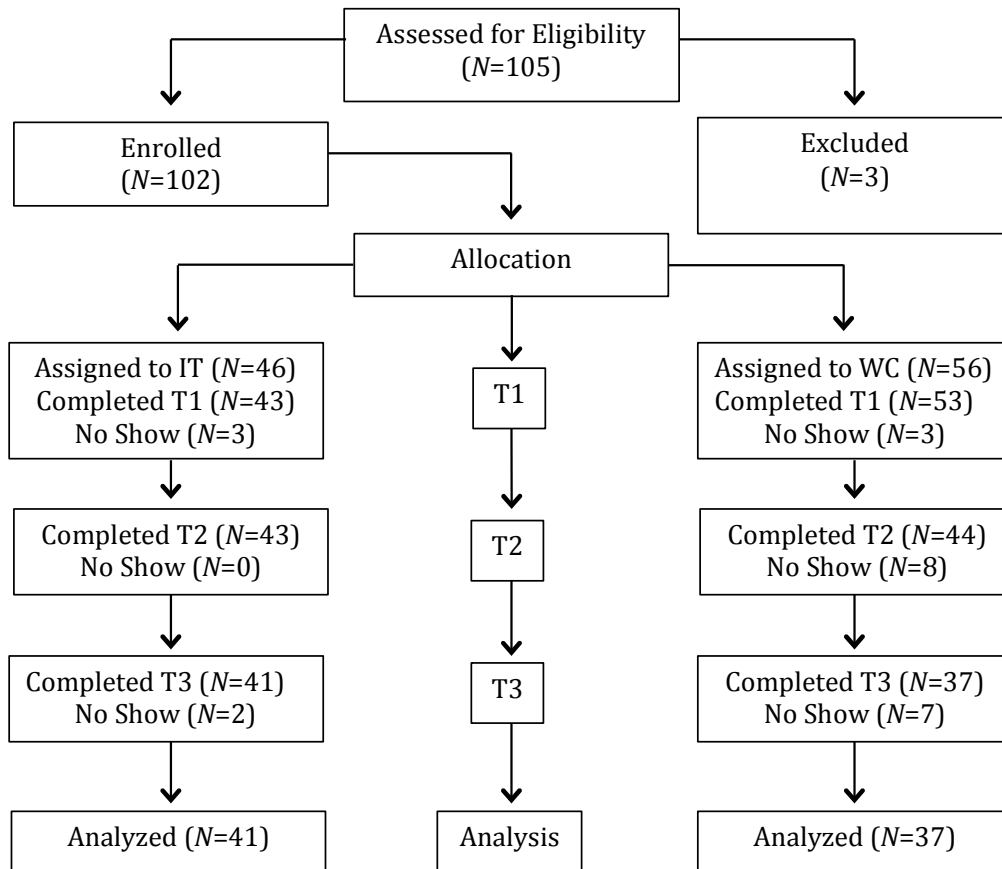
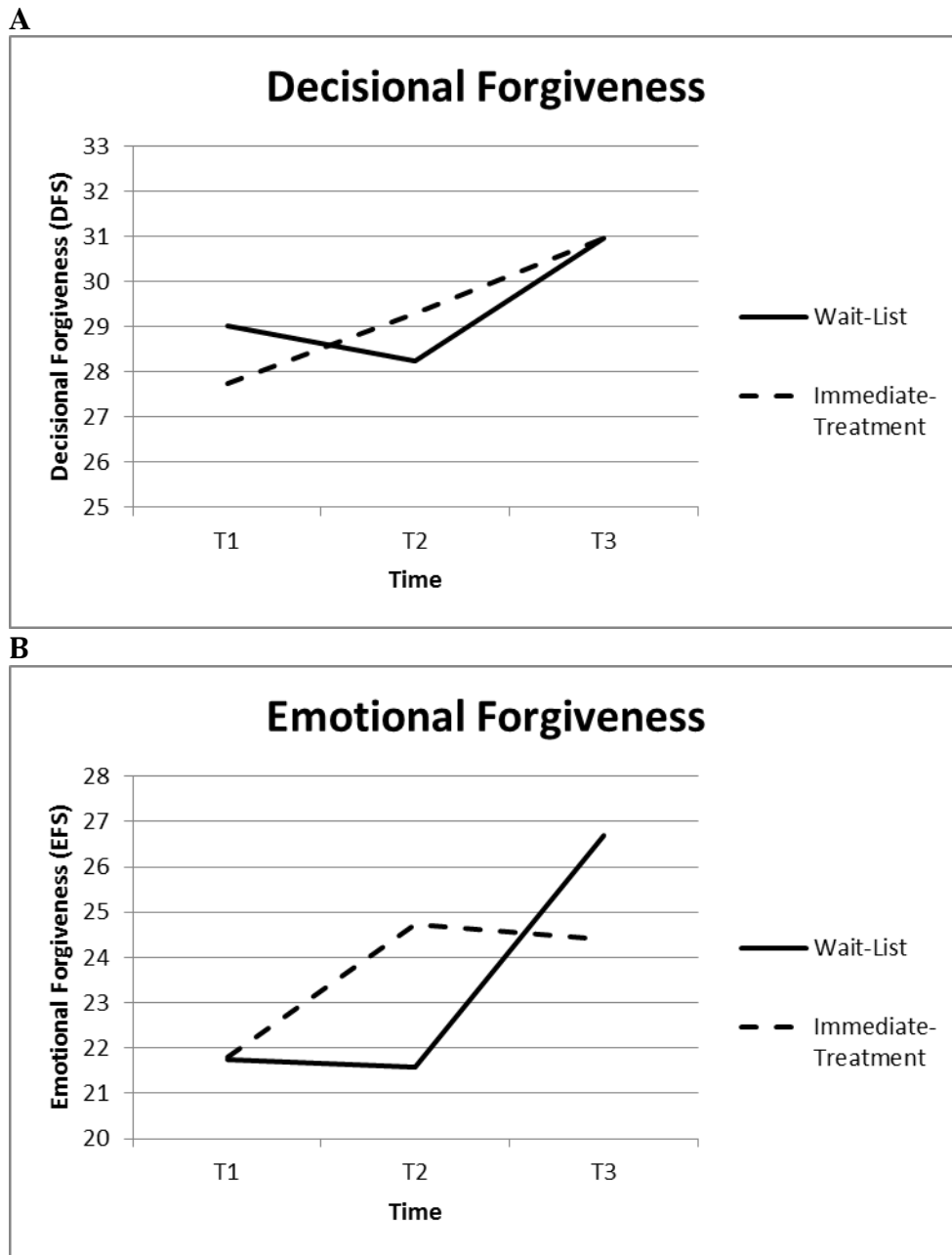


Figure 2.

Ratings of Decisional and Emotional Forgiveness across Time by Treatment Condition



Note: Possible values for the DFS (Decisional Forgiveness Scale) range from 8-40; Possible values for the EFS (Emotional Forgiveness Scale) range from 8-40. The REACH Forgiveness intervention was administered to participants in the immediate-treatment condition between t1 and t2 and to participants in the wait-list condition between t2 and t3.