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# Emotion Regulation Strategies and Psychological Health Across Cultures

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Maya Tamir played a lead role in conceptualization, data curation, investigation, methodology, project administration, resources, supervision, writing–original draft, and writing–review and editing, a supporting role in visualization, and an equal role in formal analysis, funding acquisition, software, and validation. Atsuki Ito played a lead role in formal analysis and visualization. Yuri Miyamoto played a supporting role in conceptualization, data curation, formal analysis, investigation, methodology, supervision, and writing–review and editing. Yulia Chentsova-Dutton played a supporting role in conceptualization, data curation, investigation, methodology, project administration, supervision, and writing–review and editing and an equal role in funding acquisition. Jeong Ha Choi played a supporting role in formal analysis. Jan Cieciuch played a supporting role in data curation and formal analysis. Michaela Riediger played a supporting role in data curation and writing–review and editing. Antje Rauers played a supporting role in data curation and writing–review and editing. Maria Padun played a supporting role in data curation. Min Young Kim played a supporting role in data curation. Nevin Solak played a supporting role in data curation. Jiang Qiu played a supporting role in data curation. Xiaoqin Wang played a supporting role in data curation. Aldo Alvarez-Risco played a supporting role in data curation. Yaniv Hanoch played a supporting role in data curation. Yukiko Uchida played a supporting role in data curation. Claudio Torres played a supporting role in data curation. Thiago Gomes Nascimento played a

*continued*

Emotion regulation is important for psychological health and can be achieved by implementing various strategies. How one regulates emotions is critical for maximizing psychological health. Few studies, however, tested the psychological correlates of different emotion regulation strategies across multiple cultures. In a preregistered cross-cultural study ($N$ = 3,960, 19 countries), conducted during the COVID-19 pandemic, we assessed associations between the use of seven emotion regulation strategies (situation selection, distraction, rumination, cognitive reappraisal, acceptance, expressive suppression, and emotional support seeking) and four indices of psychological health (life satisfaction, depressive symptoms, perceived stress, and loneliness). Model comparisons based on Bayesian information criteria provided support for cultural differences in 36% of associations, with very strong support for differences in 18% of associations. Strategies that were linked to worse psychological health in individualist countries (e.g., rumination, expressive suppression) were unrelated or linked to better psychological health in collectivist countries. Cultural differences in associations with psychological health were most prominent for expressive suppression and rumination and also found for distraction and acceptance. In addition, we found evidence for cultural similarities in 46% of associations between strategies and psychological health, but none of this evidence was very strong. Cultural similarities were most prominent in associations of psychological health with emotional support seeking. These findings highlight the importance of considering the cultural context to understand how individuals from diverse backgrounds manage unpleasant emotions.

***Public Significance Statement***

This study assessed links between multiple emotion regulation strategies and indices of psychological health in diverse countries around the world as people coped with the COVID-19 pandemic. Some of these links were similar across countries, but some were different, such that strategies that were positively related to psychological health in some countries were unrelated or negatively related to psychological health in other countries. These findings highlight the importance of a culturally sensitive approach to emotion regulation and mental health.

*Keywords:* culture, emotion, emotion regulation, depression, well-being

*Supplemental materials:* https://doi.org/10.1037/amp0001237.supp



The past decades have witnessed an explosion of research on emotion regulation, which involves attempts to change emotions in a desired direction (Gross, 2015). How people manage emotions may be critical for their psychological well-being. Some emotion regulation strategies are generally linked to better psychological health than others. For example, cognitive reappraisal, which involves thinking about an event in a way that changes its emotional impact (Gross, 1998), has been linked with desirable psychological outcomes (McRae & Gross, 2020), whereas rumination, which involves bringing an emotional event repeatedly to mind, has been linked with undesirable outcomes (Aldao et al., 2010). Such findings might imply that people who are psychologically healthier are more likely to use reappraisal and less likely to use rumination. Alternatively, these findings might imply that to maximize psychological benefits, it may be better to use cognitive reappraisal and avoid rumination. Along these lines, research on emotion regulation strategies has informed interventions in diverse settings (e.g., Denny, 2020; Hoffmann et al., 2020). However, we do not yet know whether associations between emotion regulation strategies and psychological health hold across cultural contexts.

Associations of emotion regulation strategies with psychological health can vary by situational context (e.g., controllable vs. uncontrollable situations; Troy et al., 2017). However, how they vary by cultural context, in particular, remains poorly understood. Much of the evidence regarding psychological correlates of emotion regulation strategies has been collected in Western, educated, industrialized, rich, and democratic (WEIRD; Henrich et al., 2010) countries, leaving

supporting role in data curation. Asghar Afshar Jahanshahi played a supporting role in data curation. Rakesh Singh played a supporting role in data curation. Shanmukh V. Kamble played a supporting role in data curation. Sieun An played a supporting role in data curation. Vivian Dzokoto played a supporting role in data curation. Adote Anum played a supporting role in data curation. Babita Singh played a supporting role in data curation. Gianluca Castelnuovo played a supporting role in data curation. Giada Pietrabissa played a supporting role in data curation. María Isabel Huerta-Carvajal played a supporting role in data curation. Erika Galindo-Bello played a supporting role in data curation. Verónica Janneth García Ibarra played a supporting role in data curation.

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open the possibility that correlates of emotion regulation strategies may or may not vary across cultural contexts. Such variation, if it exists, could have important implications for mental health, especially if strategies that are linked to better psychological health in one cultural context are unrelated or linked to worse psychological health in another cultural context. In this investigation, therefore, we tested whether links between different emotion regulation strategies and psychological health vary by culture.

## Psychological Correlates of Emotion Regulation Strategies Across Cultures

Associations between emotion regulation strategies and psychological health might be consistent across cultures if emotion regulation strategies operate similarly on emotions (e.g., distraction decreases emotional intensity across cultures) and if emotions are similarly associated with psychological health across cultures. Although only a few studies examined emotion regulation strategies across countries, some evidence points to consistent effects on emotional experiences. For instance, one study tested the effects of cognitive reappraisal during the COVID-19 pandemic in 87 countries (Wang et al., 2021). Instructing people to use cognitive reappraisal to decrease unpleasant emotions led to decreases in unpleasant emotions and increases in pleasant emotions across cultures. These findings suggest that some links between emotion regulation strategies and psychological health may be consistent across cultures. These findings, however, may also be influenced by demand characteristics.

There is also reason to expect variability across cultures in associations between emotion regulation strategies and psychological health. If how people understand, experience, and judge emotions varies across cultures, the implications of how people regulate emotions might also vary. Individualist cultures, for instance, prioritize individual well-being and emphasize authenticity and the expression of internal attributes and experiences (Markus & Kitayama, 1991). In such cultures, emotions are assumed to happen "within" people and signal the needs and goals of the authentic self (Mesquita, 2022; Uchida et al., 2009). In contrast, collectivist cultures prioritize social well-being and emphasize social harmony (Markus & Kitayama, 1991). In such cultures, emotions are assumed to happen "between" people, with less emphasis on internal subjective experiences (Mesquita, 2022; Uchida et al., 2009). These differences inform two emotion-related values that could moderate associations between emotion regulation strategies and psychological health—namely, the value of authentic emotion and the value of prohedonic experiences (i.e., pleasures vs. pain).

First, with respect to the value of authentic emotion, in more individualist (vs. collectivist) cultures, emotions are considered signals of the authentic self, adherence to emotion norms is stronger (Vishkin et al., 2023), and emotional expression is more valued (Matsumoto et al., 2008). Hence, in more individualist (vs. collectivist) cultures, emotion regulation strategies that involve disengagement from emotions should be negatively linked to psychological health. This idea is consistent with research on cultural differences in expressive suppression, which is a strategy that involves inhibiting the expression of emotion (Gross, 1998). Expressive suppression has been associated with worse psychological and social outcomes among European Americans compared to East Asians (Soto et al., 2011; Su et al., 2015), with these effects linked to perceptions of emotional expression as reflecting the authentic self (English & John, 2013). Although most cultural research on emotion regulation has focused on expressive suppression, it is possible that these patterns extend to other strategies that involve disengagement from the experience or expression of emotion (e.g., distraction; Carver et al., 1989).

Second, with respect to the value of prohedonic experiences, although all emotions offer useful signals about the individualist self, positive signals are valued more than negative ones, and the desire to experience pleasure over pain is generally stronger in more individualist (vs. collectivist) cultures (e.g., Miyamoto et al., 2017). In individualist (vs. collectivist) cultures, unpleasant emotions are considered less desirable (Eid & Diener, 2001) and are more negatively linked to well-being (Curhan et al., 2014) and physical health (Park et al., 2020), whereas pleasant emotions are more positively linked to well-being (Kuppens et al., 2008). Hence, in more individualist (vs. collectivist) cultures, emotion regulation strategies that maintain or amplify unpleasant emotions should be more negatively linked to psychological outcomes. This idea is consistent with research on cultural differences in rumination, a strategy that involves repetitively focusing attention on negative emotions and their causes (Nolen-Hoeksema et al., 2008) and can amplify emotional intensity (e.g., Millgram et al., 2019). Rumination has been associated with worse psychological health in European Americans compared to Asian Americans (Chang et al., 2010). Although preliminary, it is possible that these patterns extend to other cultures and potentially to other strategies that involve amplifying or maintaining unpleasant emotions, at least in the short term (e.g., acceptance; Wojnarowska et al., 2020).

Taken together, the above examples demonstrate that cultural differences in how people think about emotions, as a function of individualism–collectivism, could be reflected in cultural differences in associations between emotion regulation strategies and psychological health. Whether such associations are likely to vary across cultures should depend on individualist–collectivist cultural values and how they relate to the features of the target strategy (e.g., disengaging from emotions, amplifying or maintaining unpleasant emotions).

Overall, there is some evidence for consistency across cultures, but also growing evidence for cultural variability in associations between emotion regulation strategies and

psychological health. This evidence is still limited with respect to the strategies that have been examined concurrently across cultures and the cultural contexts that have been targeted to date. One study assessed both expressive suppression and rumination and found they were linked to lower mental health among Germans but not among Japanese (Schunk et al., 2022). This study demonstrated the importance of assessing more than one emotion regulation strategy and moving beyond U.S.-centric studies, but it was still limited in scope. Just how much variation and how much consistency exist in the psychological correlates of emotion regulation strategies across cultures is unclear. To address this important question, we assessed associations between a range of emotion regulation strategies and indices of psychological health in diverse cultural contexts.

To ensure emotion regulation was relevant across cultures, we tested cultural differences in the use of emotion regulation strategies as people around the world were coping with a relatively common stressor—namely, the global COVID-19 pandemic. During the pandemic, many people worldwide faced a health threat, social isolation, and economic hardship. These resulted in increased emotional distress (e.g., Cénat et al., 2021), introducing an opportunity to implement emotion regulation strategies to decrease unpleasant emotions.

Our investigation targeted seven emotion regulation strategies. Six strategies have featured prominently in theories of emotion regulation (Gross & Thompson, 2007; Parkinson & Totterdell, 1999) and are commonly used in daily life (Brans et al., 2013). These include situation selection (selecting situations likely to induce desired emotions), distraction (diverting attention away from the emotional event and the feelings it elicits), rumination, cognitive reappraisal, expressive suppression, and emotional support seeking (turning to others to help influence one's emotions). We included acceptance (engaging with emotions in a nonjudgmental manner) as another strategy, as it has emerged as a distinct and effective form of emotion regulation in recent work (Wojnarowska et al., 2020).

Existing evidence from WEIRD cultural contexts suggests that situation selection, cognitive reappraisal, acceptance, and emotional support seeking are positively linked to psychological health, whereas rumination and expressive suppression are negatively linked to psychological health (Aldao et al., 2010; Gross, 2015). Links between distraction and psychological health have been inconsistent (Wolgast & Lundh, 2017). Given that culture shapes the value of authentic emotions and the value of prohedonic experiences, we expected some of the associations between emotion regulation strategies and psychological health to vary across cultures that differ in individualism–collectivism. Whether an emotion regulation strategy is positively linked, negatively linked, or unrelated to psychological health may depend on the target strategy, the target index of psychological health, and the specific cultural context.

## The Current Investigation

To test our hypothesis, we conducted a preregistered cross-cultural study (https://aspredicted.org/ZPY_42W). The study took place during the COVID-19 pandemic between April and August 2021. The study included samples from 19 countries, covering major cultural regions around the world (Middle East, Latin America, North America, Europe, Eastern Europe, Sub-Saharan Africa, East Asia, and South Asia). To increase equivalence across samples, we recruited university students.

We assessed the use of emotion regulation strategies to decrease unpleasant emotions. To do so, we created and validated a multi-item measure of emotion regulation strategy use (available in the Appendix) and established its measurement equivalence across cultures. We assessed links between emotion regulation strategy use and four indices of psychological health (i.e., life satisfaction, depressive symptoms, perceived stress, and loneliness).

We expected to find evidence for variability across cultures in some associations between emotion regulation strategies and indices of psychological health. We further tested whether potential cultural variability could be explained by country levels of individualism–collectivism. We expected individualism–collectivism to moderate associations between psychological health and rumination and expressive suppression, but potentially also distraction and acceptance. Given that unpleasant emotions differ across cultures (Mesquita, 2022) and emotion regulation strategy use depends on emotional intensity (Sheppes et al., 2014), we assessed and controlled for unpleasant emotional experiences. This allowed us to ensure that cultural differences in unpleasant emotional experiences do not account for potential differences in links between emotion regulation strategies and psychological health. We also tested whether several variables at the country level explained cultural differences in associations between strategies and psychological health indices. First, given that countries might differ in age and gender distributions, these country-level variables included age and gender. Second, as the impact of COVID-19 likely differed across countries at the time of our investigation, we assessed and examined COVID-19 impact at the country level. Third, given that our sample targeted university students, we examined the prevalence of college-level education at the country level.

# Method

The study materials, data, and analysis codes are available on the Open Science Framework (Tamir & Ito, 2023).

## Participants

Participants were university students ($N$ = 3,960, 56.8% female, $M_{age}$ = 22.95, $SD_{age}$ = 4.91) from 19 countries, including Russia, Poland, Italy, Germany, the United

Kingdom, the United States, Turkey, Israel, India, Japan, South Korea, China, Nepal, Bangladesh, Ghana, Mexico, Brazil, Peru, and Ecuador. Participants were included in the analysis if they were native-born, native-language speakers, over 18 years old, spent more than 300 s on the survey and passed two attention checks (see Table 1, for details on sample composition). Our final sample did not include additional 597 participants (450 failed attention checks, 56 were not native-born, 79 were underage, 11 completed the survey in less than 300 s, and one was not a native speaker). A minimum of 100 participants per group is considered sufficient when conducting multilevel structural equation modeling (Hox & Maas, 2001).[1]

## Procedure

The study was approved and conducted in compliance with local internal review boards. Participants completed the study online after giving informed consent. Participants completed the study in their native language or formal language of instruction. For non-English versions, we carried out iterations of translation and back translation by independent bilinguals. Separate gender-matched versions were used, where appropriate. Participants first rated their emotional experiences. They then rated the extent to which they used different emotion regulation strategies and completed indices of psychological health and demographic questions.[2]

## Materials

All measures below were completed with reference to the past week. Reliabilities by country are reported in the Results section.

### *Emotional Experiences*

To assess emotional experiences in the past week, participants completed a scale that has been previously validated to assess emotional experiences in healthy samples across cultures (Tamir et al., 2016). Participants rated the extent to which (1 = *not at all*; 5 = *a lot*) they felt items related to sadness (sadness, depression, despair), fear (fear, anxiety, nervousness, stress), and anger (anger, contempt, hostility, hatred). To create an index of unpleasant emotions, we computed average scores for sadness, fear, and anger, and then aggregated across them.[3]

### *Emotion Regulation Strategy Use*

To assess the use of a range of emotion regulation strategies, we created and validated a new scale. The scale included separate subscales to measure the use of situation selection, distraction, cognitive reappraisal, rumination, expressive suppression, acceptance, and emotional support seeking. First, we conducted a literature review to identify existing traits and state measures of each strategy.[4] Second, building on this literature, we selected items for each strategy that tap usage in the previous week, that do not refer to specific emotions, that are not tied to specific contexts, and that are not redundant with each other. We selected four items per strategy, which resulted in 28 items total (see the Appendix, for the list of items in a random order, instructions, and mapping of items to strategies). Third, we conducted a pilot study ($N$ = 182; $M_{age}$ = 34.72, $SD_{age}$ = 12.71; 75% female) on Prolific to test the reliability and structural validity of the scale. Participants rated how much they engaged in each behavior to decrease their unpleasant emotions in the past week (1 = *I did not do this at all*; 5 = *I did this a lot*). An exploratory factor analysis confirmed the expected seven-factor structure, with all target items loading most highly on their respective factors.[5]

### *Psychological Health*

**Life Satisfaction.** Participants completed the Satisfaction With Life Scale (SWLS; Diener et al., 1985). Participants rated their agreement (1 = *strongly disagree*; 7 = *strongly agree*) with five items (e.g., "I was satisfied with my life").

**Depressive Symptoms.** Participants completed the short form of the Center of Epidemiological Studies Depression Scale (CESD; Eaton et al., 2004). Participants rated how often (1 = *rarely or none of the time*; 4 = *most or all of the time*) they experienced 10 symptoms (e.g., "I felt depressed").

**Perceived Stress.** Participants completed the short Perceived Stress Scale (PSS-4; Cohen et al., 1983). Participants rated how often (1 = *rarely or none of the time*; 4 = *most or all of the time*) they had four experiences (e.g., "I was unable to control the important things in my life").

**Loneliness.** Participants completed the short form of the University of California, Los Angeles Loneliness Scale (Hays & DiMatteo, 1987). Participants rated their agreement (0 = *completely disagree*; 8 = *completely agree*) with eight items (e.g., "I lacked companionship").[6]

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[1] This condition was met in all countries but Brazil. Evidence for cross-cultural differences was even stronger when analyses were repeated excluding Brazil.

[2] To address other research questions, the study also included measures of motivation to engage in self- and other-oriented emotion regulation, strategies used for other-oriented emotion regulation, and reactions to the COVID-19 pandemic. We also included indices of psychological health from the World Health Organization (WHO). Our patterns of results remained consistent when these WHO indices were included as dependent variables.

[3] The scale also included 15 pleasant emotions and four additional items for exploratory purposes. These items were not included in the current analyses.

[4] A complete list of these sources is available upon request from the corresponding author.

[5] Information about factor loadings is available upon request from the corresponding author.

[6] Due to human error, in half the countries (Poland, Italy, India, Japan, South Korea, Brazil, Ghana, the United Kingdom, the United States, Nepal), loneliness was rated on a 1–8 scale. These scores were rescaled to fit a 0–8 scale.

**Table 1**
*Sample Characteristics*

| Country | *N* | Age range | $M_{age}$ (*SD*) | Gender |
|---|---|---|---|---|
| Bangladesh | 170 | 18–70 | 23.62 (6.09) | Female = 45%, nonbinary = 2%, nondisclosed = 7% |
| Brazil | 71 | 19–60 | 28.04 (9.40) | Female = 73% |
| China | 208 | 18–35 | 21.69 (2.13) | Female = 64%, nonbinary = 2%, nondisclosed = 1% |
| Ecuador | 130 | 18–67 | 24.42 (7.67) | Female = 60%, nondisclosed = .8% |
| Germany | 196 | 18–30 | 23.55 (3.16) | Female = 49%, nonbinary = 3%, nondisclosed = 1% |
| Ghana | 277 | 18–50 | 21.29 (3.30) | Female = 35%, nondisclosed = 4% |
| India | 238 | 18–56 | 24.71 (6.84) | Female = 74%, nondisclosed = 3% |
| Israel | 210 | 19–33 | 24.02 (2.08) | Female = 53%, nondisclosed = .5% |
| Italy | 291 | 18–62 | 25.32 (4.82) | Female = 62%, nonbinary = .7%, nondisclosed = .7% |
| Japan | 200 | 18–44 | 20.95 (2.92) | Female = 44%, nonbinary = 2.5%, nondisclosed = 5% |
| Mexico | 211 | 18–46 | 21.20 (2.33) | Female = 52%, nonbinary = .5%, nondisclosed = .5% |
| Nepal | 180 | 18–33 | 23.38 (2.98) | Female = 41%, nondisclosed = 2% |
| Peru | 163 | 18–56 | 23.95 (6.32) | Female = 55%, nondisclosed = 2% |
| Poland | 257 | 19–49 | 25.79 (5.27) | Female = 62%, nondisclosed = .4% |
| Russia | 213 | 18–48 | 21.34 (4.96) | Female = 74%, nonbinary = 1%, nondisclosed = 2% |
| South Korea | 215 | 18–49 | 22.17 (2.66) | Female = 73%, nondisclosed = .5% |
| Turkey | 270 | 18–40 | 21.35 (2.41) | Female = 19%, nondisclosed = .7% |
| United Kingdom | 218 | 18–76 | 23.31 (7.14) | Female = 50% |
| United States of America | 242 | 18–26 | 19.98 (1.23) | Female = 85%, nonbinary = .8% |

### *Country-Level Variables*

**Individualism–Collectivism.** Ratings of individualism–collectivism were computed following Vishkin et al. (2023), who averaged across scaled indices of individualism–collectivism, including Hofstede's individualism index (Hofstede et al., 2010), Schwartz's scores for autonomy versus embeddedness (Schwartz, 1994), and Welzel's scores for emancipative values (Welzel, 2013). Higher scores reflect higher individualism.

**COVID Impact.** Participants rated how much (0 = *not applicable*; 1 = *not at all*; 7 = *very much*) the COVID-19 pandemic negatively impacted 13 life domains (e.g., "income," "physical health"). We used these scores to compute country-level means.

**Tertiary Education Attainment.** This information was available for 14 of the 19 countries and taken from the Organisation for Economic Co-operation and Development 2020 report (https://data.oecd.org/eduatt/adult-education-level.htm).

## Results

### Measurement Equivalence and Reliabilities

To test whether our measures assessed the same constructs across cultures, we used separate multigroup confirmatory factor analyses (MGCFA) to test the measurement equivalence of measures of emotion regulation strategies, indices of psychological health, and emotional experiences. First, for each index, we confirmed that all items loaded on the same latent factor across cultures (i.e., configural invariance). Next, we tested whether the loadings of items on the latent factor were equal across cultures (i.e., metric invariance). In cases where full metric invariance was not established, we tested for partial metric invariance, which requires that at least two loadings per latent variable are equal across groups (Byrne et al., 1989). We used multiple fit indices to evaluate the models, treating comparative fit index (CFI) values $\geq .90$, root-mean-square error of approximation (RMSEA) values $\leq .08$, and the standardized root-mean-square residual (SRMR) values $\leq .06$ (Hu & Bentler, 1999) as indicating a reasonable model fit and treating changes in CFI $\leq .01$ and RMSEA $\leq .015$ or SRMR $\leq .03$ between the configural and metric level as supporting the metric invariance (Chen, 2007). Section 1.1 in the Supplemental Materials presents the fit coefficients for models at the level of the partial metric invariance. We established full or partial metric invariance for our measures across almost all groups. Establishing metric invariance is sufficient to justify treating associations between emotion regulation strategies and psychological health as comparable across cultural samples. Section 1.2 in the Supplemental Materials lists the reliability indices of our measures by country.

### Key Analyses

In our preregistration, we planned to evaluate between-country differences in associations between strategies and psychological outcomes by creating country dummies and testing whether they moderate individual-level associations. However, these models did not converge. Therefore, we used multilevel analyses to address the nested structure of our data, assessing individual-level links between emotion regulation strategies and indices of psychological health (i.e., Seven Strategies × Four Indices = 28 links in total). These multilevel analyses allowed us to assess associations between emotion regulation strategies and psychological health and whether they differ across countries, by including random

slopes in the models. We controlled for age, gender, and unpleasant emotional experiences, which were group-mean-centered and included at the individual level (see Section 2.1 of the Supplemental Materials, for the detailed equations of the multilevel models). We conducted these analyses using Mplus 8.8 (Muthén & Muthén, 2018) and MplusAutomation package of R (Hallquist & Wiley, 2018). The maximum likelihood estimation with the robust standard errors (MLR) method was used to estimate the models so that standard errors and model fit indices were corrected and results were robust to violation of data normality. We report the full results of the random intercept and slope models in Section 2.2 of the Supplemental Materials.

As shown in Table 2, when averaged across countries, situation selection, cognitive reappraisal, acceptance, and emotional support seeking were linked to better psychological health, whereas rumination and expressive suppression were linked to worse psychological health. Distraction was linked to higher life satisfaction but was not significantly linked to indices of ill-being. These findings are largely consistent with commonly reported patterns but should be interpreted cautiously if there is evidence that they differ across countries.

### *Evaluating Cultural Differences/Similarities in Associations Between Strategies and Indices of Psychological Health*

To test whether there is sufficient evidence for differences or similarities across countries and to estimate the strength of such evidence, we relied on a Bayesian statistical approach. For each association, we compared models with a random intercept for country to models with random intercept and slope for country, based on the Bayesian information criterion (BIC; Kass & Raftery, 1995). In general, models with a smaller BIC value are preferred. This approach affords two benefits. First, by subtracting BIC values of models with a random intercept and slope from BIC values of models with a random intercept, we could separately estimate evidence in favor of differences across countries (i.e., $\Delta BIC > 0$, when BIC of random intercept and slope models is smaller than BIC of random intercept models) and in favor of similarities across countries (i.e., $\Delta BIC < 0$). Second, the size of the BIC differences can be used to infer the strength of the evidence in support of either differences or similarities across cultures. Following Raftery (1995), absolute BIC differences between 0 and 2 can be interpreted as weak evidence, absolute differences between 2 and 6 can be interpreted as positive evidence, absolute differences between 6 and 10 can be interpreted as strong evidence, and absolute differences greater than 10 can be interpreted as very strong evidence. In Table 3, we report (a) BIC values of all random intercept models, (b) BIC values of all random intercept and slope models, and (c) the differences between them.

**Table 2**
*Average Individual-Level Links Between Emotion Regulation Strategies and Indices of Psychological Health Across Cultures in Multilevel Analyses*

| | Life satisfaction | | | | Depressive symptoms | | | | Perceived stress | | | | Loneliness | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Emotion regulation strategies | *b* | *SE* | *t* | *p* value | *b* | *SE* | *t* | *p* value | *b* | *SE* | *t* | *p* value | *b* | *SE* | *t* | *p* value |
| Situation selection | 0.43 | 0.03 | 17.41 | <.001 | −0.09 | 0.01 | −6.54 | <.001 | −0.17 | 0.01 | −11.27 | <.001 | −0.34 | 0.04 | −9.42 | <.001 |
| Distraction | 0.17 | 0.05 | 3.45 | .001 | 0.00 | 0.01 | 0.20 | .843 | −0.03 | 0.02 | −1.74 | .082 | −0.03 | 0.04 | −0.79 | .429 |
| Rumination | −0.06 | 0.03 | −2.09 | .037 | 0.14 | 0.01 | 12.79 | <.001 | 0.14 | 0.02 | 7.93 | <.001 | 0.22 | 0.02 | 9.26 | <.001 |
| Cognitive reappraisal | 0.36 | 0.04 | 9.81 | <.001 | −0.08 | 0.01 | −6.46 | <.001 | −0.15 | 0.01 | −10.65 | <.001 | −0.24 | 0.03 | −7.59 | <.001 |
| Acceptance | 0.37 | 0.04 | 9.85 | <.001 | −0.06 | 0.01 | −8.52 | <.001 | −0.13 | 0.01 | −10.59 | <.001 | −0.25 | 0.03 | −7.86 | <.001 |
| Expressive suppression | −0.01 | 0.04 | −0.23 | .818 | 0.07 | 0.01 | 9.15 | <.001 | 0.04 | 0.01 | 2.89 | .004 | 0.21 | 0.03 | 7.08 | <.001 |
| Emotional support seeking | 0.21 | 0.02 | 9.45 | <.001 | −0.03 | 0.01 | −2.57 | .010 | −0.04 | 0.01 | −4.39 | <.001 | −0.24 | 0.04 | −5.96 | <.001 |

*Note.* In the multilevel models, participants were nested within cultures. Strategies were included as individual-level predictors of psychological health, with age, gender, and unpleasant emotional experiences as individual-level covariates (these variables were centered within culture, except for gender). Models included random intercepts for indices of psychological health and random slopes for strategy–outcome relationships. *SE* = standard error.

**Table 3**
*Comparisons of Multilevel Models With and Without Random Slopes for Strategy Based on the BIC*

| Emotion regulation strategy (IV) | Psychological health index (DV) | BIC 1 | BIC 2 | ΔBIC |
|---|---|---|---|---|
| Situation selection | Life satisfaction | 12418.87 | 12426.96 | −8.09 |
| | Depressive symptoms | 4877.74 | 4874.3 | 3.43 |
| | Perceived stress | 6257.36 | 6258.75 | −1.39 |
| | Loneliness | 14126.56 | 14132.58 | −6.02 |
| Distraction | Life satisfaction | 12708.94 | 12671.96 | 36.98 |
| | Depressive symptoms | 4990.65 | 4997.66 | −7 |
| | Perceived stress | 6519.56 | 6512.07 | 7.49 |
| | Loneliness | 14264.38 | 14269.71 | −5.33 |
| Rumination | Life satisfaction | 12742.6 | 12722.57 | 20.04 |
| | Depressive symptoms | 4715.85 | 4710.71 | 5.14 |
| | Perceived stress | 6306.92 | 6251.84 | 55.08 |
| | Loneliness | 14202.42 | 14210.65 | −8.23 |
| Cognitive reappraisal | Life satisfaction | 12499.43 | 12493.62 | 5.81 |
| | Depressive symptoms | 4903.44 | 4905.22 | −1.78 |
| | Perceived stress | 6300.29 | 6300.25 | 0.03 |
| | Loneliness | 14189.03 | 14196.21 | −7.18 |
| Acceptance | Life satisfaction | 12526.29 | 12519.32 | 6.97 |
| | Depressive symptoms | 4933.62 | 4942.08 | −8.45 |
| | Perceived stress | 6369.7 | 6377.52 | −7.82 |
| | Loneliness | 14191.02 | 14199.04 | −8.02 |
| Expressive suppression | Life satisfaction | 12750.49 | 12706.75 | 43.74 |
| | Depressive symptoms | 4885.38 | 4887.16 | −1.77 |
| | Perceived stress | 6501.41 | 6489.4 | 12.01 |
| | Loneliness | 14185.26 | 14188.57 | −3.31 |
| Emotional support seeking | Life satisfaction | 12627.58 | 12635.38 | −7.79 |
| | Depressive symptoms | 4971.28 | 4975.54 | −4.26 |
| | Perceived stress | 6504.4 | 6512.18 | −7.79 |
| | Loneliness | 14151.25 | 14151.69 | −0.44 |

*Note*. BIC = Bayesian information criterion; IV = independent variable; DV = dependent variable; BIC 1 = BIC of random intercept model; BIC 2 = BIC of random intercept and slope model; ΔBIC = BIC 1 − BIC 2.

### *Examining Specific Associations Between Strategies and Psychological Health Indices*

To examine how specific associations between emotion regulation strategies and psychological outcomes varied across countries, we conducted multiple-group path analyses, using Mplus 8.8 (Muthén & Muthén, 2018) and MplusAutomation package of R (Hallquist & Wiley, 2018). Each of the seven path models included an emotion regulation strategy (e.g., acceptance) and covariates (i.e., age, gender, intensity of unpleasant emotional experiences), predicting the four indices of psychological health (i.e., depressive symptoms, loneliness, perceived stress, and satisfaction with life) simultaneously. We used maximum likelihood estimation with robust standard errors (MLR). We report the results of multiple-group path analyses in Sections 3.1–3.7 of the Supplemental Materials.

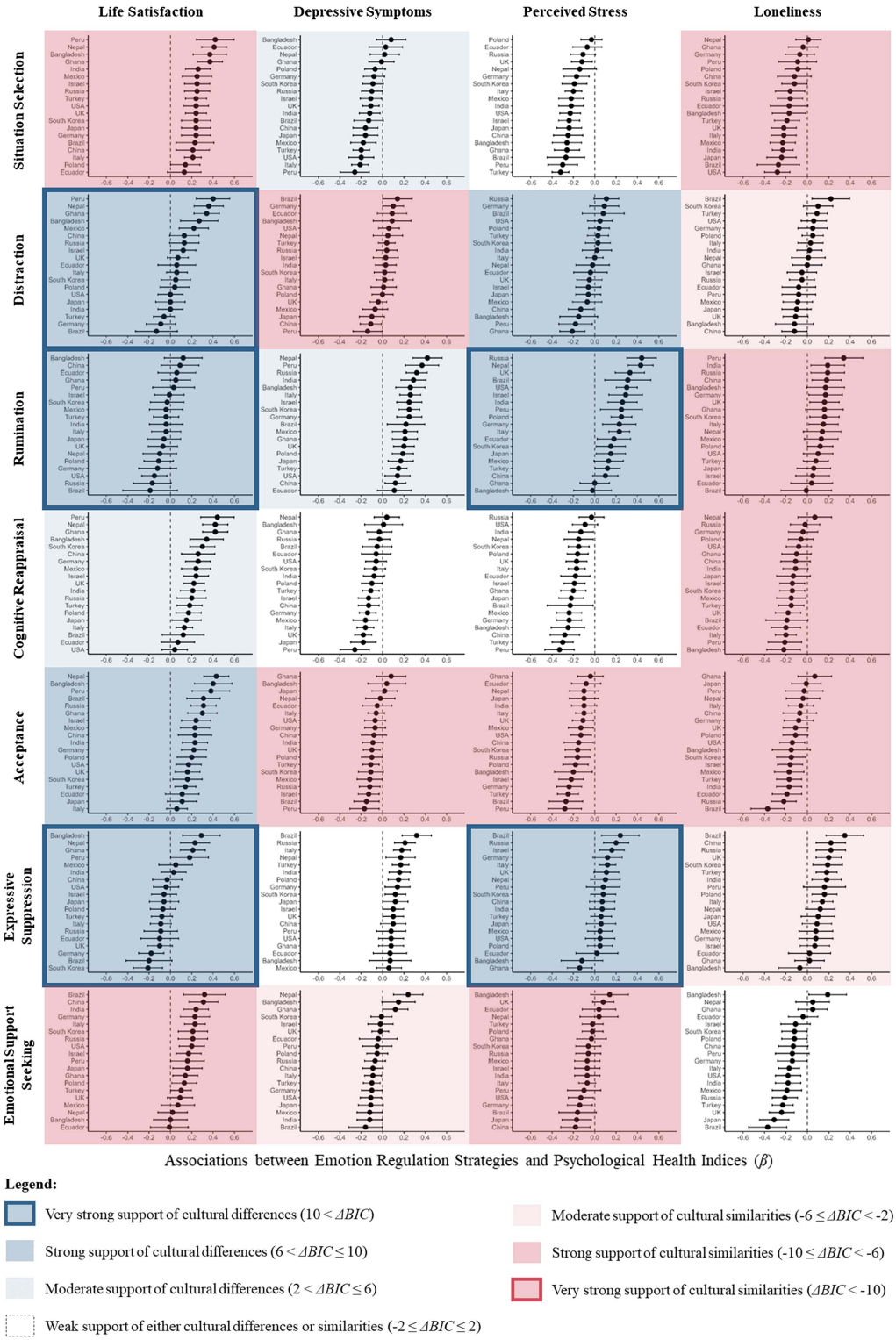
Figure 1 presents the findings of the multilevel analyses and the multiple-group path analyses. Summarizing the results of the multiple-group path analyses, the figure depicts coefficients (and their confidence intervals) of associations between each emotion regulation strategy (in separate rows) and each index of psychological health (in separate columns) in each country (listed in the *y*-axes of each cell). Figure 1 also summarizes the BIC comparisons based on the multilevel analyses. The figure depicts associations for which there is sufficient evidence in favor of cultural differences in blue and associations for which there is sufficient evidence in favor of cultural similarities in pink. When the evidence is too weak to support either cultural differences or similarities (i.e., $|\Delta BIC|$ ranges from 0 to 2), associations appear in White. Figure 1 also provides information about the strength of the available evidence, with stronger associations appearing in darker shades, and very strong associations highlighted in a bold frame.

As shown in Figure 1, we found evidence (i.e., $\Delta BIC > 2$) for cultural differences in associations between emotion regulation strategies and psychological health in 36% of the links. The evidence in support of cultural differences was strong (i.e., $\Delta BIC > 6$) in 25% of the links, and very strong (i.e., $\Delta BIC > 10$) in 18% of the links.[7] Congruent with existing evidence, we found very strong support for cultural differences in associations of psychological health with expressive suppression and rumination. We also found strong support for cultural differences in associations of psychological health with distraction. Strong evidence for cultural differences was also found in associations with acceptance, and weaker evidence for cultural differences was found in

[7] To test whether these findings were obtained by chance alone, we simulated data by repeating our analyses 20 times after randomly assigning participants to countries at each iteration. None of these analyses provided evidence for cultural differences (i.e., $\Delta BIC > 6$), indicating that our results were unlikely due to chance.

**Figure 1**

*Associations Between Emotion Regulation Strategies and Psychological Health Indices by Country and the Strength of Evidence in Favor of Cultural Differences or Similarities in Each Association*




*Note*. The figure presents estimated effects (and confidence intervals for the effect) of a strategy on a psychological health index in a particular country based on the multiple-group path analyses. BIC = Bayesian information criterion. See the online article for the color version of this figure.

associations with situation selection and cognitive reappraisal. In terms of psychological health indices, associations with life satisfaction were the most variable across cultures, whereas associations with loneliness were the least variable.

We also found evidence (i.e., $\Delta BIC < -2$) for similarities across countries in 46% of associations between emotion regulation strategies and psychological health (see Figure 1). Evidence in support of cultural similarities was strong (i.e., $\Delta BIC < -6$) in 36% of the links. There were no associations for which evidence for cultural similarities was very strong. Emotional support seeking was the only strategy where there was evidence for cultural similarities in associations with indices of psychological health, with no evidence for cultural differences. Emotional support seeking was associated with higher life satisfaction and lower perceived stress. We also found strong evidence for cultural similarities in negative associations between acceptance and depressive symptoms, perceived stress, and loneliness. Strong evidence in favor of cultural similarities was also found in positive associations of situation selection and life satisfaction and negative associations of situation selection and loneliness.

The weakest evidence in support of either differences or similarities across countries was found in associations of psychological health with cognitive reappraisal. There was strong evidence for cultural similarity in the negative link between reappraisal and loneliness, moderate evidence for cultural differences in the link between reappraisal and life satisfaction, and not enough evidence to support cultural differences or similarities in links between reappraisal and depressive symptoms or stress.

### Examining Moderation by Individualism–Collectivism

We proceeded to test whether cultural differences could be explained by country-level individualism–collectivism. We report the detailed results of these analyses in Section 4.2 of the Supplemental Materials (see Section 4.1, for equations). In Figure 2, associations that were significantly moderated by country-level individualism–collectivism are highlighted in a bold frame. As in Figure 1, we depicted associations where the evidence in favor of cultural differences was strong (i.e., $\Delta BIC > 6$) in blue and associations where the evidence in favor of cultural similarities was strong (i.e., $\Delta BIC < -6$) in pink. For simplicity, we did not depict weaker evidence for cultural differences or similarities (i.e., $|\Delta BIC| \leq 6$).

As shown in Figure 2, whenever there was strong evidence for cultural differences, they were significantly linked to country levels of individualism–collectivism. Associations between psychological health and expressive suppression, rumination, distraction, and acceptance tended to be more negative or less positive in more individualist countries. Expressive suppression was negatively associated with psychological health in more individualist countries but positively associated with it in more collectivist countries. Rumination was negatively associated with psychological health in more individualist countries but unrelated to it in more collectivist countries. Distraction was unrelated to psychological health in more individualist countries but positively related to it in more collectivist countries. Acceptance was positively associated with psychological health, but this association was weaker in more individualist countries.

We also found significant moderation by individualism–collectivism of associations between reappraisal and life satisfaction (where evidence for cultural differences was positive but not strong), associations between emotional support seeking and loneliness (where evidence was insufficient to support either cultural differences or similarities), and associations between situation selection and life satisfaction (where there was strong evidence in favor of cultural similarities). In cases where evidence in favor of cultural differences was ambiguous or when there was evidence in favor of cultural similarities, evidence for moderation by individualism–collectivism should be interpreted with caution.

### Examining Effects by Potential Covariates at the Country Level

We conducted a set of follow-up multilevel analyses to test whether country-level variables (e.g., between-country variations in age and gender compositions, COVID impact, and tertiary education attainment) explained associations between each strategy and each index of psychological health. None of the effects of between-countries variation in age, gender, or COVID impact were significant. When examining country-level tertiary education attainment, we found significant effects in two of the seven target associations (i.e., the association between distraction and perceived stress and the association between expressive suppression and life satisfaction). Taken together, these findings suggest that our effects could not be fully explained by country differences in age, gender, COVID impact, or levels of educational attainment alone. Results of these analyses are reported in Sections 4.3–4.6 in the Supplemental Materials.[8]

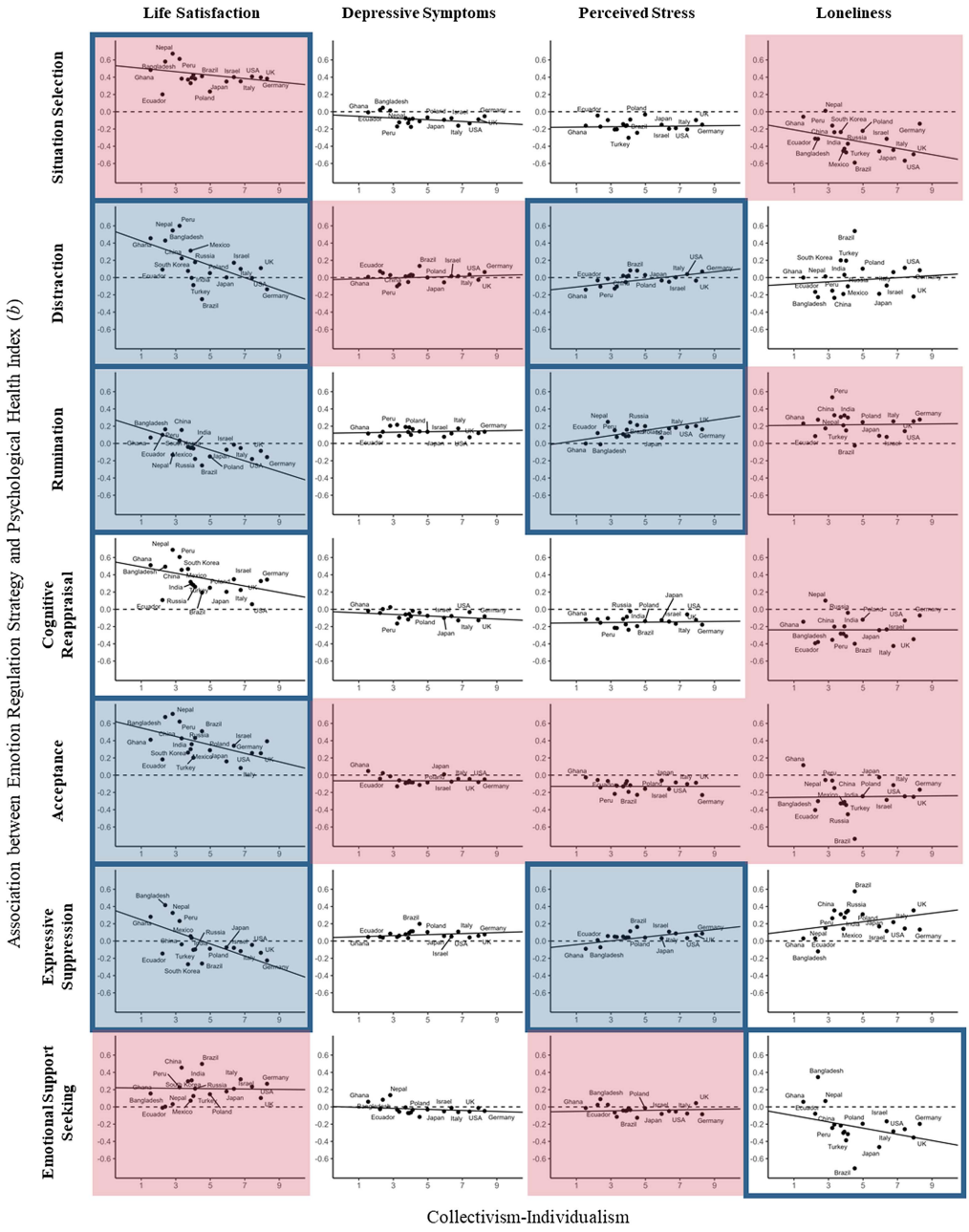
## Discussion

Which emotion regulation strategy people use may be critical for mental health (e.g., Aldao et al., 2010). Accordingly, studies have tried to identify which emotion regulation strategies are used by healthy (or unhealthy) people and which strategies are more (vs. less) adaptive. Our findings

[8] Our measure of emotion regulation strategies targeted attempts to decrease unpleasant emotions. In our sample, 26 participants (0.7% of the total sample) reported they experienced no unpleasant emotions in the preceding week. Therefore, we repeated our key analyses excluding these participants. Results remained unchanged.

**Figure 2**

*Associations Between Emotion Regulation Strategies and Psychological Health Indices and Their Moderation by Collectivism–Individualism*




**Legend:**

- Significant moderation by country-level individualism-collectivism ($p < .05$)
- Strong support of cultural differences ($6 < \Delta BIC$)
- Weak to moderate support of either cultural differences or similarities ($-6 \leq \Delta BIC \leq 6$)
- Strong support of cultural similarities ($\Delta BIC < -6$)

*Note*. The vertical axes represent the estimated effects of a strategy on a psychological health index in a particular country, based on multiple-group analyses where we tested associations between a strategy and a psychological health index one by one (i.e., they were not based on the multiple-group path analyses where we examined associations between a strategy and the four psychological health indices simultaneously). Higher scores on the *x*-axis reflect higher individualism. BIC = Bayesian information criterion. See the online article for the color version of this figure.

suggest that it might be more beneficial to identify which strategies are more (vs. less) adaptive *for which context*. Using a particular emotion regulation strategy could be linked to different (and even opposite) patterns of psychological health in different cultural contexts. In a cross-cultural study, we assessed associations between emotion regulation strategies and indices of psychological health as people coped with the distress of the COVID-19 pandemic. We targeted diverse countries, some of which have been rarely studied. We found strong to very strong support for cultural differences in some of the associations between emotion regulation strategies and psychological health. Indeed, some strategies that were positively linked to psychological health in certain countries were unrelated or even negatively related to psychological health in other countries. We also found evidence for similarities across cultures, indicating that some patterns are consistent, whereas others are not.

### Links Between Emotion Regulation and Psychological Health May Differ Across Cultures

Although most research on emotion regulation has been conducted in WEIRD cultural contexts, there is a growing body of research on emotion regulation and well-being across cultures (for reviews, see Chentsova-Dutton et al., in press; Miyamoto et al., in press). Whereas some studies point to cultural differences (e.g., Su et al., 2015), other studies point to cultural similarities (e.g., Wang et al., 2021) in associations between emotion regulation strategies and psychological health. Our investigation bridges such findings and extends them by detecting both differences and similarities in associations between multiple emotion regulation strategies and different indices of psychological health across an array of diverse cultural contexts.

Our findings provide strong to very strong support for cultural differences in some associations between emotion regulation strategies and psychological health. Extending the available literature (e.g., Chang et al., 2010; Choi & Miyamoto, 2023; Soto et al., 2011; Su et al., 2015), we found the most consistent evidence for cultural differences in associations of psychological health with expressive suppression and rumination. Our findings also provide evidence for novel cultural differences (e.g., in associations with distraction).

Our findings also pointed to similar associations between emotion regulation strategies and psychological health across cultures. Emotional support seeking was linked to better psychological health. Similarly, acceptance was linked to better psychological health, although the strength of its positive associations with life satisfaction was stronger in more collectivist countries. Situation selection was linked to more satisfaction with life and less loneliness. Finally, although cognitive reappraisal was linked to less loneliness across cultures and was generally linked to better psychological health, evidence regarding cultural similarities or differences in its associations with other indices of psychological health was inconclusive.

Overall, there was at least some evidence for differences across cultures in associations of psychological health with six of the seven strategies tested. Whereas in some instances only the size of the effect differed by country (e.g., acceptance), in other instances the direction of the effect differed as well (e.g., expressive suppression). Whether or not cultural differences in associations between psychological health and emotion regulation strategies were detected depended on which strategy was examined. For instance, cultural differences were more common with respect to rumination than acceptance. Detecting cultural differences also depended on the index used to assess psychological health. Cultural differences were most common in associations with life satisfaction and least common in associations with loneliness.

Our findings suggest that using the same emotion regulation strategy could be differentially linked to psychological health in different cultures. These findings call for culturally sensitive psychological interventions. In addition to cultural sensitivity in psychiatric care (Kirmayer, 2007), our findings suggest that in a diverse and globalized world, to facilitate emotional health within and across cultures, it may be necessary to encourage the use of strategies that optimize health in the given cultural context.

### Accounting for Cultural Differences and Similarities

Our investigation demonstrates that links between emotion regulation strategies and psychological health can differ across cultures. Although providing a full theoretical account of such differences is beyond the scope of this investigation, we propose that links between emotion regulation strategies and psychological health might depend on beliefs about emotions that likely vary by culture and on the characteristics of the emotion regulation strategy in question.

Members of countries that differ in individualism–collectivism tend to differ in how they think about emotions. Members of more individualist (vs. collectivist) cultures tend to value authentic emotions (Matsumoto et al., 2008; Uchida et al., 2009) and prohedonic experiences (Miyamoto et al., 2017) more highly. Reflecting these different cultural values, in these countries, emotional clarity and experiences are more strongly linked to well-being (Suh et al., 1998). Furthermore, in more individualist (vs. collectivist) countries, well-being is more positively linked to pleasant emotions and negatively linked to unpleasant emotions (Curhan et al., 2014; Kuppens et al., 2008). Acknowledging authentic feelings and feeling pleasure over pain may be more valuable in individualist (vs. collectivist) cultures.

We have reasoned that if authentic emotions are more valuable in individualist (vs. collectivist) countries, strategies that disengage from or inhibit emotions should be more negatively linked to psychological health. Indeed, we found

that expressive suppression, which involves inhibiting emotional expression, was negatively linked to psychological outcomes in individualist countries (e.g., Germany), but positively linked to them in collectivist countries (e.g., Ghana). Similarly, distraction, which involves disengagement from emotional experiences (Carver et al., 1989) was unrelated to psychological outcomes in individualist countries (e.g., Germany) but positively linked to them in collectivist countries (e.g., Peru).

We also reasoned that if prohedonic experiences are more valuable in individualist (vs. collectivist) countries, emotion regulation strategies that do not lead to an immediate improvement in hedonic balance should be more negatively linked to psychological health in individualist (vs. collectivist) countries. Indeed, we found that rumination, which can amplify emotional intensity (Millgram et al., 2019), was linked to worse psychological health in more individualist countries (e.g., United States), but less so in collectivist countries (e.g., China). Similarly, acceptance, which involves refraining from active attempts to influence feelings (Wojnarowska et al., 2020), was linked to better psychological health in more collectivist countries (e.g., Nepal), but less so in individualist countries (e.g., Italy).

Evidence for cultural differences or similarities was less consistent in the case of situation selection and cognitive reappraisal. Although further research is needed, this inconsistent evidence may be due to the fact that these strategies could either inhibit or facilitate authenticity and can be used to either decrease, amplify, or maintain pain versus pleasure. If these strategies can be implemented in ways that are consistent with either individualist or collectivist values (e.g., different ways of reframing situations, different types of situations encountered), their associations with psychological health may or may not differ across cultures.

Finally, we found no evidence for cultural differences in associations between psychological health and emotional support seeking. Research on cultural differences in links between emotional support and psychological health has been inconsistent (e.g., Ishii et al., 2017). Although this deserves future research attention, participants in our study may have construed emotional support in culturally consistent ways, which minimized cultural differences. It is also possible that receiving (rather than seeking) care and affection from others is related to better psychological health, regardless of how people think about emotions.

### Strengths and Limitations

The COVID-19 pandemic offered a unique opportunity to examine thoughts, feelings, and behaviors in response to a global threat. We capitalized on this opportunity and assessed how people felt and what they did to manage their emotions during such stressful times. We were able to sample diverse cultural contexts, some of which have been rarely studied. To understand cultural variation, we need to move beyond WEIRD cultures (Henrich et al., 2010), and our investigation was successful in doing so by sampling understudied cultural contexts in South America, Eastern Europe, East Asia, and Africa. Yet, our study sampled only university students, which raises questions about generalizability and representativeness. It is important, therefore, to try to replicate our findings with representative samples from the general population.

Conducting our investigation during a global pandemic allowed us to examine how people worldwide coped with a relatively common objective stressor. Yet, it introduced strict methodological limitations. Our investigation was correlational and relied on self-report. Our design, therefore, does not allow us to determine whether using certain emotion regulation strategies leads to better or worse psychological health in certain cultures or whether people in particular states of ill-being or well-being are more likely to use certain strategies in certain cultures. Regardless of the causal direction, however, finding evidence for cultural differences or similarities in links between emotion regulation strategies and psychological health is the first step toward understanding emotion regulation in culturally diverse contexts. Future studies could assess emotion regulatory behaviors and psychological health using other methodologies, measures, and experimental designs in contexts other than the COVID-19 pandemic. If replicated with designs that allow to establish the causal direction of the effects, our findings could inform interventions around the world and in countries with culturally diverse populations (e.g., the United States).

Our analysis focused on cultural differences in individualism–collectivism; however, some of our effects may be informed by other cultural differences or might be country-specific. Indeed, when cultural differences emerged, Bangladesh and Brazil, which are both collectivist cultures, were often positioned at opposite ends of the distribution. Future research could move beyond the collectivism–individualism dimension and identify other cultural dimensions that may help account for differences in emotion and emotion regulation (see Kitayama et al., 2022). Also, we were able to establish a level of equivalence that justified comparing associations between measures (i.e., strategies and psychological health) across cultures. However, as is often the case in cross-cultural research, we were unable to establish a level of equivalence that justifies comparing mean levels (e.g., levels of using specific strategies) across cultures. If it is possible to establish the necessary level of equivalence across measures, such comparisons would be an important goal for future research.

We found that emotion regulation strategies that are considered adaptive (or maladaptive) in WEIRD cultures can have different and even opposite associations with psychological health in non-WEIRD cultures. Our investigation, however, focused on strategies that people use to decrease

their unpleasant emotions. Future research could extend the current findings to assess cultural differences and similarities in other forms of emotion regulation, including the regulation of specific discrete unpleasant emotions (e.g., guilt vs. anger), the regulation of pleasant emotions, other-oriented or interpersonal emotion regulation, as well as group-based and collective emotion regulation. Interpersonal forms of emotion regulation might be particularly important to examine due to their potential role in collectivist cultural contexts.

Although we offered potential explanations for our findings, these need to be tested in future research. Furthermore, we offer explanations for some, but not all of our findings. For instance, it is unclear why cultural differences were relatively consistent when examining links with life satisfaction but less consistent when examining links with depressive symptoms and perceived stress. Also, we cannot explain why patterns with depressive symptoms and perceived stress differed from each other. Finally, we were able to explain many cultural differences (e.g., why rumination was linked to worse psychological health in individualist vs. collectivist cultures), but we cannot yet explain the range of such effects (e.g., why links with rumination range from negative to null, whereas links with expressive suppression range from negative to positive). Our investigation outlines the landscape of cultural similarities and differences in associations between emotion regulation strategies and psychological health, with the hope that future research could build on this foundation to develop new theories and test novel hypotheses.

## Conclusions

Which emotion regulation strategy should people use to maximize psychological health? Our findings suggest that the answer may depend on the individual's cultural context. We assessed links between the use of different emotion regulation strategies during the COVID-19 pandemic and indices of psychological health in diverse countries worldwide and found that such links can vary across cultures. Our findings highlight the importance of adopting a culturally sensitive approach to emotion regulation.

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## Appendix

### Emotion Regulation Strategies Scale

During the past week, to what extent did you try to decrease your negative emotions, by doing each of the following?

| 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|
| I did not do this at all | I did this a little | I did this moderately | I did this quite a bit | I did this a lot |

1. I told myself that it is ok to be feeling the way I was feeling
2. I tried to accept my feelings without judgment
3. I made sure not to show my emotions
4. I tried to think about the situation differently in order to change my feelings
5. I tried thinking about something else
6. I tried to hide the expression of my feelings
7. I shifted my attention away from what was making me emotional
8. I turned to someone close to me to help me feel better
9. I kept going over and over things in my mind
10. I chose which situation to put myself in
11. I sought compassion from other people
12. I tried to get emotional support from friends or relatives
13. I found that my mind often went over things again and again
14. I ruminated or dwelled on the situation
15. I just let myself experience whatever emotions came up
16. I sought out situations that I expected would make me feel better

(*Appendix continues*)

17. I took steps to change the situation I was in

18. I tried to see the event that made me feel bad from a different perspective

19. I distracted myself from the situation

20. I looked to others for comfort

21. I observed my feeling and let them come and go as they are

22. I selected activities that made me feel good

23. I controlled my emotions by not expressing them

24. I changed the way I thought about the things that made me feel bad

25. I changed the way I was thinking about the situation I was in

26. I kept my emotions to myself

27. I tried not to think about the things that make me feel bad

28. The things that made me feel bad stuck in my head for a long time

Situation selection = Items 10, 16, 17, and 22
Distraction = Items 5, 7, 19, and 27
Rumination = Items 9, 13, 14, and 28
Cognitive reappraisal = Items 4, 18, 24, and 25
Acceptance = Items 1, 2, 15, and 21
Expressive suppression = Items 3, 6, 23, and 26
Emotional support seeking = Items 8, 11, 12, and 20

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