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Moral transgressions, psychological well-being, and family conflict in the context of the COVID-19 pandemic: The role of self-forgiveness

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Abstract

Purpose The COVID-19 pandemic led many individuals to experience moral transgressions, exacerbating feelings of guilt and remorse. This study explored the role of the self-forgiveness of such transgressions in explaining their associations with psychological well-being and family conflict. We hypothesized that (a) higher levels of self-forgiveness would be associated with greater psychological well-being and reduced family conflict, (b) the perceived relevance of moral transgressions would be positively associated with self-forgiveness and indirectly associated with psychological well-being and family conflict through the mediation of self-forgiveness, and (c) the relationships between the variables of interest could vary across age.

Method Adults ($N = 277$; M age = 30.04) completed anonymous online questionnaires assessing the relevance of transgressions committed, forgiveness and unforgiveness of self, psychological well-being, and family conflict during the first COVID-19 lockdown in Italy.

Results Structural equation modeling revealed that transgression relevance was positively associated with both forgiveness and unforgiveness of self, and indirectly related to psychological well-being and family conflict via self-forgiveness. Greater forgiveness of self was related to greater eudaimonic well-being, whereas greater unforgiveness of self was linked to increased family conflict and reduced eudaimonic well-being. The findings also indicated that age moderated the relationship between forgiveness of self and hedonic well-being, with the association weakening as age increased.

Conclusions The results highlight the importance of promoting self-forgiveness to enhance psychological resilience and familial stability, particularly during challenging times.

Keywords Moral transgressions, COVID-19 pandemic, Self-forgiveness, Eudaimonic well-being, Hedonic well-being, Family conflict

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Introduction

The onset of the COVID-19 (COronaVirus Disease of 2019) pandemic introduced pervasive challenges to individuals worldwide and significantly impacted their well-being. Well-being has been studied from two perspectives. The hedonic perspective emphasizes experiencing positive emotions and being satisfied with one's life, whereas the eudaimonic perspective focuses on having a meaningful purpose in one's life and a positive orientation toward self-actualization.

With respect to hedonic well-being, the threat of the virus and the imposition of stringent public health measures led people to experience heightened levels of stress, anxiety, and depression [1–3]. Social isolation due to lockdowns, coupled with the fear of infection, led to heightened feelings of loneliness and a decrease in overall life satisfaction [4, 5]. Furthermore, the loss of loved ones, economic hardships, and disruption of daily routines further intensified distress among individuals [6, 7]. Restrictions on social interactions also prevented people from taking part in social activities, leading to increased feelings of boredom and monotony [8]. The negative effects of the pandemic on hedonic well-being seem to be persistent, with heightened levels of depression and anxiety found well after its outbreak [9].

The pandemic also disrupted many aspects of eudaimonic well-being, particularly individuals' pursuit of meaningful aspirations. Indeed, job losses, economic instability, and uncertainties about the future hindered individuals' ability to pursue long-term goals [10]. Moreover, individuals' sense of autonomy and control over their lives was compromised. Lockdowns, social distancing measures, and remote work arrangements led to a sense of distance from one's personal agency and the external world, impacting individuals' perceptions of self-determination [11].

Lockdown measures also impacted interpersonal relationships and strained families, as individuals spent more time at home. Although this had the potential to strengthen familial bonds, it also led to higher levels of stress due to the blurred boundaries between work, personal life, and caregiving responsibilities [12]. Conflicting demands, such as managing remote work, home schooling, and household responsibilities, strained familial dynamics, resulting in increased tension and conflict [13].

Moral transgressions

The most common affective experience during the COVID-19 pandemic concerned guilt, remorse, and regret [14], which are typical signs of moral transgression. These feelings were not limited to those who were infected by the virus; rather, they were also commonly experienced by those who were not infected [15]. Several factors contributed to the emergence of these emotions during the pandemic.

As COVID-19 was highly contagious and could be transmitted even by asymptomatic individuals, many people felt a sense of responsibility for potentially putting others at risk [16]. Public health measures such as lockdowns and social distancing protocols further exacerbated feelings of regret and guilt among individuals. Not surprisingly, people experienced remorse as a consequence of perpetrating moral transgressions peculiar to that period: some people regretted not being able to show their love to close ones [17], missing out on important life events or not being able to pursue their usual activities [18].

The perpetration of moral transgressions during the COVID-19 pandemic resulted in greater guilt, moral distress and injury, which were associated with lower well-being among healthcare workers and community members [19–22].

There is extensive evidence that committing moral transgressions fuels feelings of guilt, shame, and rumination that, if persistent, undermine personal and relational well-being [e.g., 23, 24, 25]. These negative outcomes are more likely if transgressors perceive their actions as severe and feel responsible for them [e.g., 26, 27].

The protective role of self-forgiveness

Self-forgiveness has garnered attention as a potential mechanism for alleviating the negative effects of moral transgressions and their outcomes. By definition, self-forgiveness occurs when individuals who have committed a moral transgression "interpret and successfully resolve the consequent negative self-condemning emotions, cognitions, motivations, and behaviors, toward more positive self-directed emotions, cognitions, motivations, and behaviors" [28p. 9]. In addition, self-forgiveness can be conceptualized as a trait variable, that is a global disposition to forgive oneself independently of transgressions committed and of the contexts in which they occurred, or as a state variable, that is as an act of self- forgiveness for a specific transgression perpetrated in a particular context [29]. Trait self-forgiveness and state self-forgiveness are therefore distinct constructs, which relate only moderately [29].

Given their potential to alleviate the emotional burden of moral transgressions, several studies have demonstrated a positive relationship between trait and state self-forgiveness and various mental health outcomes [30]. For example, Cornish and Wade [31] found that state self-forgiveness provided relief from the negative affect associated with transgressions. Davis et al. [32] showed that trait and state self-forgiveness were linked to reduced stress and enhanced well-being outcomes such as satisfaction with life and general mental health. Additionally,

Toussaint et al. [33] emphasized the role of trait self-forgiveness in buffering the negative mental and physical health impacts of transgressions. Finally, Beltràn-Morillas and Expósito [34] found that state self-forgiveness for interpersonal offenses committed prior to the COVID-19 pandemic was positively related to personal growth and life satisfaction during the pandemic through the mediation of other-compassion.

Extending beyond the individual level, the benefits of self-forgiveness have also been recognized in interpersonal relationships and community settings. For example, Woodyatt and Wenzel [35] provided evidence that state self-forgiveness fosters empathy and reconciliation, thereby enhancing social connections and overall well-being. Similarly, Hall and Fincham [36] emphasized the role of self-forgiveness in promoting forgiveness toward others, thus contributing to conflict resolution. Pelucchi and colleagues [37] found an association between state unforgiveness of self and lower relationship satisfaction for both offensive and victimized romantic partners. These authors argued that individuals struggling to forgive themselves are more prone to negative emotions such as remorse, rumination, guilt, distrust, and depression, which subsequently diminish relationship satisfaction. Research has supported these conclusions, indicating that individuals experiencing difficulties in self-forgiveness are more likely to experience negative thoughts and feelings, ultimately leading to decreased relationship quality [32]. Conversely, self-forgiving romantic partners are more likely to experience greater relationship satisfaction also because, as indicated by Pelucchi and colleagues [38], self-forgiveness promotes forgiveness toward the romantic partner.

Studies conducted during the COVID-19 pandemic revealed that trait self-forgiveness mediated the relationship between psychological resilience and depression: the greater the psychological resilience, the greater the self-forgiveness, and consequently, the fewer the depressive symptoms [39]. Additionally, trait self-forgiveness was related to greater psychosocial well-being and lower psychosocial distress among healthcare professionals, such as female nurses [40]. Therefore, the propensity to forgive oneself for perceived shortcomings or failures may play a significant role in mitigating the psychosocial impact of the pandemic and fostering adaptation to it [32, 40]. However, no studies have investigated state self-forgiveness for transgressions committed due to the moral challenges posed by the COVID-19 pandemic or its potential outcomes. Since state and trait self-forgiveness do not overlap - neither conceptually nor in the strength of their associations with possible outcome variables - it cannot be assumed that findings on trait self-forgiveness during the COVID-19 pandemic apply to state self-forgiveness. Consequently, the present study aims to fill the existing gap in the literature by exploring state self-forgiveness for moral transgressions committed during the pandemic, examining important characteristics of these transgressions, namely their severity and accountability, as well as the potential moderating role of participants' age.

Self-forgiveness and transgression features

Existing self-forgiveness frameworks [e.g., 35, 36, 41] posit that features of a transgression, such as its severity and perceived responsibility for it, affect state self-forgiveness. However, the associations between these characteristics and self-forgiveness are not straightforward. On the one hand, the greater the perceived degree of offense severity and responsibility, the more difficult it is to forgive oneself because of feelings of guilt and shame and the rumination that a severe offense fuels [36, 41, 42]. On the other hand, for self-forgiveness to be genuine, the wrongdoer must acknowledge the seriousness of the offence and feel, to some extent, responsible for it. Additionally, in the case of interpersonal offences, the perception of greater severity and accountability promotes reparative strategies in the offender, such as making amends, apologizing, and seeking forgiveness, which in turn facilitates self-forgiveness [35, 43].

There is evidence that wrongdoing severity and perceived responsibility for the wrong can be positively related to both state unforgiveness and forgiveness of self. For example, by using a bidimensional measure of offense-specific self-forgiveness, Pelucchi et al. [37, 38, 44] found that perceived transgression severity was positively related to both state forgiveness and unforgiveness of self. Similarly, Cornish et al. [29] showed that perceived responsibility was positively related to both self-forgiving and self-condemning but was negatively associated with self-exoneration for specific offenses.

Self-forgiveness and age

Trait self-forgiveness seems to increase with age [42, 45], in line with "maturity" models of aging, which posit that psychologically adaptive qualities increase throughout the lifespan [e.g., 46]. Indeed, older adults tend to exhibit greater levels of forgiveness toward themselves [47], probably because they prioritize emotional regulation, which may contribute to their increased capacity for self-forgiveness. Additionally, older people seem to particularly benefit from self-forgiveness, showing greater life satisfaction and longevity when granting it [45, 48, 49]. Self-forgiveness for past wrongdoings may have more positive effects on older adults because they are more likely than younger adults to engage in "life review" or reflect on their unresolved conflicts, failures and missed opportunities [50]. However, relying on multiple theoretical approaches, Windsor [47] also argued that, compared with younger adults, older adults are also

less likely to commit significant offences and to spend time and energy on the effortful process of genuine self-forgiveness for contemporary offences, therefore deriving less benefit from it.

Research aims and hypotheses

The present study examined the protective role of state self-forgiveness in the context of pandemic-related moral transgressions, with a specific focus on its associations with psychological well-being and family conflict. Given the unique challenges posed by the COVID-19 pandemic, understanding how individuals dealt with transgressions prompted by the pandemic, which may induce feelings of guilt and remorse, is crucial for interventions aimed at promoting psychological well-being.

Drawing on the COVID-19 and self-forgiveness literature previously reviewed, we hypothesized that higher levels of forgiveness of self for a pandemic-related transgression would be related to greater psychological well-being (both hedonic and eudaimonic) and lower levels of family conflict. With respect to unforgiveness of self, we predicted that higher levels of unforgiveness would be related to lower levels of psychological well-being (both hedonic and eudaimonic) and higher levels of family conflict [30, 32].

We also predicted that the relevance of the pandemic-related moral transgression, assessed in terms of its perceived severity and the perpetrator's felt responsibility for it, would be positively associated with both unforgiveness and forgiveness of self [29, 37, 38, 44] and thereby indirectly associated with psychological well-being and family conflict [26, 27].

Finally, we explored potential age-related differences in the relationship of self-forgiveness with well-being and family conflict, hypothesizing that the protective effects of self-forgiveness on well-being and family conflict, and consequently the indirect effects of transgression relevance on them, may vary across different stages of the lifespan [47].

Method

Participants and procedure

This study is part of a larger project on coping, resilience, and well-being during the early stages of the COVID-19 pandemic in Italy [51, 52]. The original research project involved 326 participants who did not contract COVID-19 and were living in northern Italy.

In the present study, we considered only participants ($N = 227$; 68.4%) who reported having felt, thought, said, or done something related to the pandemic that they felt guilty about or regretted. The subjects reporting moral transgression were mostly females (78.4%), aged between 19 and 70 years ($M = 30.04$, $SD = 12.68$), and held a high school diploma (49.8%) or a bachelor's degree (26.0%). The majority of the participants were full-time students (38.8%), part-time workers (26.8%) or full-time workers (26.0%). In most cases, they had a romantic partner (66.1%), with whom they did not cohabitate (62.7% of those having a partner). All participants provided complete data, with no missing values.

The participants were contacted through messages posted on social networks or sent by messaging apps. The invitation explicitly stated that the study aimed to investigate the impact of the COVID-19 outbreak on personal well-being, requiring participants to be Italian and at least 18 years old. The participants were subsequently encouraged to complete a questionnaire that took approximately 30 min and was uploaded online through the Google Forms platform. The process of collecting the data was carried out with complete anonymity, ensuring that the respondents could not be traced in any way. Participation in the study was voluntary and no compensation was provided.

The data were collected over a two-week span from April to May 2020, during the first national lockdown period. This period saw the enforcement of stringent restrictive measures, such as the stay-at-home directive and the requirement for remote work or study. Throughout this timeframe, 21,395 Italians were diagnosed with COVID-19, and 3,916 died after being infected, mostly in the districts where the participants in this study lived.

The entire procedure was conducted in accordance with the Declaration of Helsinki and the ethical guidelines of the Italian Psychological Association (AIP) (https://www.aipass.org/node/11560, accessed on 13 April 2020) and of ethics committee of University of Bergamo (https://www.unibg.it/ateneo/organizzazione-e-struttura/organi-e-organismi/comitato-lintegrita-e-letica-ricerca; accessed on 13 April 2020). These guidelines included obtaining informed consent from participants, upholding ethical treatment, respecting participants' rights, and safeguarding the privacy of both participants and their data. According to the National Guidelines of the AIP, particular attention from an ethical committee or IRB was required in several cases, but this study does not refer to any of them. The study did not involve vulnerable groups, and it focused on participants' everyday behaviors without the use of deception or invasive methods —no medicines or medical instruments were employed. The data were completely anonymous and participants cannot be identified in any reports. The data collection and its use posed no risk of harm or offense to the participants, either personally or culturally. Since ethical review and approval were not mandatory for this study under the AIP and University of Bergamo ethical guidelines, and given that the timeline for approval was significantly extended due to the local impact of COVID-19, ethical review and approval process was waived for this

study, consistent with many other studies during the pandemic [e.g. 53–57].

Data were collected, treated, and stored anonymously, according to the Italian (Law 31 dicembre 1996 n. 675, 676, Gazzetta Ufficiale del 08/01/1997, art. 7 del D. Lgs. 30 giugno 2003, n. 196) and European regulation (European General Data Protection Regulation - GDPR UE 2016/67) as disclosed to participants.

Written informed consent was obtained from each participant before their inclusion in the study. Participants were assured that their participation was voluntary and that they could withdraw from the study at any time without any consequences.

Measures

Sociodemographic characteristics. The respondents were asked to provide sociodemographic information, including sex, age, educational level, employment status, and involvement in a romantic relationship.

Moral transgression and its relevance. The participants were asked to think about what had happened in their life since the COVID-19 outbreak occurred 3 months earlier and to briefly describe something that they had felt, thought, said or done related to the pandemic and that they felt guilty about or regretted. The participants were subsequently asked to assess the relevance of the transgression reported in terms of its severity and their personal responsibility for it. The degree of severity was measured via one ad hoc item asking participants to rate on an 11-point scale (0 = *not all severe*, 11 = *definitely very severe)* how severe they considered what they had felt, thought, said, or done (see Supplementary Materials). Responsibility for moral transgression was assessed via the Responsibility Scale [58]. Participants were asked to respond to 5 items (e.g., "I feel I was responsible for what happened," "I wasn't really to blame for this (reverse score)") on a Likert scale ranging from 0 (*completely disagree*) to 10 (*completely agree*). The total score of the scale was calculated by averaging the items, with higher scores reflecting greater perceived responsibility. During the scoring, we excluded one item (specifically, "I was in the wrong situation (reverse score)") because of low internal consistency ($\alpha = 0.52$). After this item was removed, the final internal consistency of the scale was 0.64. This adjustment was made to improve the reliability of the scale in this study.

State Self-Forgiveness. Forgiveness toward the self for the transgression reported was assessed via the 11-item Self-Forgiveness Scale [37], to which 1 item adapted from the Heartland Forgiveness Scale [59] was added to increase the reliability of the positive dimension, which was captured by only 4 items. All the items were evaluated on a 7-point Likert scale ranging from 1 = *completely disagree* to 7 = *completely agree*. The scale includes two dimensions: Forgiveness of Self (5 items) and Unforgiveness of Self (7 items). The first assesses the presence of benevolence and compassion toward the self, as well as self-growth (e.g., "Over time, I became sympathetic with myself for the wrongdoing committed"; $\alpha = 0.81$), whereas the second dimension assesses the presence of self-resentment and a negative self-view (e.g., "It's still really hard for me accepting myself for what I did", $\alpha = 0.91$) (see Supplementary Materials for further details on the scale). Previous studies indicate only weak correlations between the two dimensions [37, 38, 44]. The score of each dimension was calculated by averaging the items: the higher the score was, the higher the level of forgiveness of self or unforgiveness of self.

Psychological well-being. We used the Italian version of the Psychological General Well-Being Index (PGWBI) and the Psychological Well-Being (PWB) scales to assess hedonic and eudaimonic psychological well-being, respectively.

The PGWBI [60] assesses self-perceived psychological health and well-being over the past four weeks. The Italian version, validated by Grossi et al. [61], includes 22 items scored from 0 to 5, covering six domains: anxiety (e.g., "Have you been bothered by nervousness or your "nerves" during the past month?"), depressed mood (e.g., "I felt downhearted and blue during the past month"), positive well-being (e.g., "My daily life was full of things that were interesting to me during the past month"), self-control (e.g., "I was emotionally stable and sure of myself during the past month"), general health (e.g., "Did you feel healthy enough to carry out the things you like to do or had to do during the past month?"), and vitality (e.g., "Did you feel active, vigorous, or dull, sluggish during the past month?"). All the subscales showed good internal reliability ($0.70 \le \alpha \le 0.89$) except for general health ($\alpha = 0.40$), which was excluded from the analyses. Scores were calculated for each subscale by averaging items and adjusted to a 0–100 range; higher scores indicated greater hedonic well-being.

The PWB scale [62], translated and validated in Italian by Ruini et al. [63], consists of 42 items that assess several dimensions of eudaimonic well-being: environmental mastery (e.g., "In general, I feel I am in charge of the situation in which I live"), self-growth (e.g., "I am not interested in activities that will expand my horizons (reverse score)"), positive relations with others (e.g., "I enjoy personal and mutual conversations with family members or friends"), purpose in life (e.g., "I have a sense of direction and purpose in life"), self-acceptance (e.g., "e.g., "I like most aspects of my personality"), and autonomy, which was not included in this study. Participants responded using a 6-point Likert scale ranging from 1 (*definitely disagree*) to 6 (*definitely agree*). All the subscales showed good internal reliability ($.69 \le \alpha \le .87$). Subscale scores

were calculated by averaging the relevant items, with higher scores indicating greater levels of eudaimonic well-being.

Family conflict. We adapted some subscales of the Children's Perception of Interparental Conflict Scale [64] to assess perceived family conflict in the last three months since the COVID-19 pandemic broke out. The adaptation consisted of reporting family conflicts rather than interparental conflicts. The subscales selected and adapted were frequency (4 items; e.g., "Over the past three months, in the family we have argued or disagreed a lot", $\alpha = 0.75$), intensity (6 items; e.g., "Over the past three months, in the family we have got really mad when we have argued", $\alpha = 0.75$), and resolution (5 items; e.g., "Over the past three months, when we have had arguments in the family, we have worked them out", $\alpha = 0.81$) (see Supplementary Materials for the adapted version of the scale). Participants were asked to answer each item on a 3-point Likert scale (2 = *true*, 1 = *sort of true*, 0 = *false*). The score of each subscale was calculated by averaging the items: the higher the score was, the greater the level of conflict frequency, intensity, or resolution.

Data analysis

First, we evaluated the univariate normality of the data, relying on West et al.'s [65] cutoff values of|2| for skewness and|7| for kurtosis, and computed descriptive statistics and Pearson's correlations on the variables of interest through IBM SPSS (Statistical Package for the Social Sciences) 29.

Second, to test the hypothesized mediation model, we conducted structural equation model analyses with EQS version 6.4 using an ML (Maximum Likelihood) estimator [63]. Specifically, composite scores served as manifest indicators of four latent constructs, namely, transgression relevance, hedonic well-being, eudaimonic well-being, and family conflict, and were used as manifest, measured indicators of forgiveness and unforgiveness of self. Forgiveness and unforgiveness of self were entered as parallel full mediators of the links between transgression relevance and outcomes (i.e., hedonic well-being, eudaimonic well-being, and family conflict). Forgiveness and unforgiveness of self were allowed to covary, as were the outcome variables.

An inspection of Mardia's [66] coefficient indicated a significant deviation from multivariate normality; indeed, its critical value was 3.97, which is greater than 2.58. To reduce the impact of nonnormality, Satorra and Bentler's [67] scaled estimates were used to rescale the standard errors and the chi-square statistics into the Satorra–Bentler scaled chi-square (S–B χ2) statistic. Fit indexes, such as the Comparative Fit Index [CFI; 68], the Root-Mean-Square Error of Approximation [RMSEA; 69], and the Akaike Information Criterion [AIC; 70], were also adjusted for nonnormality by incorporating the S-Bχ^2 test into their calculations. In this article, these are referred to as robust estimates (i.e., R-CFI, R-RMSEA, R-AIC). An R-CFI > 0.90 and an R-RMSEA < 0.08 were indicative of acceptable fit, whereas an R-CFI > 0.95 and an R-RMSEA < 0.05 were indicative of good fit [71]. The fit of the hypothesized model was compared with that of two models: one including the direct links from transgression relevance to outcome variables (i.e., hedonic well-being, eudaimonic well-being, and family conflict) and one model in which hedonic well-being, eudaimonic well-being, and family conflict were entered as exogenous latent variables predicting transgression relevance and, indirectly, forgiveness and unforgiveness of self. To establish which model fit the data best, we used the Satorra–Bentler mean-corrected χ^2 difference test [S-B$\Delta\chi$2; 63,67] for the first comparison and the R-AIC, which is lower in the better model, for the second comparison. To evaluate whether forgiveness and unforgiveness of self were equally related to the variables of interest, we constrained their parameters to be equal and then assessed the degree to which each constraint worsened the model fit through the robust Lagrange multiplier (R-LM) test. A significant worsening of the model fit is indicative of a significant difference between the parameters. For all models, the strength of the estimated relations (regression coefficients and covariances) was reported using standardized coefficients, with significance levels provided according to conventional thresholds ($p < .05$, $p < .01$, and $p < .001$).

In addition, we tested the age-moderating hypothesis via conditional process modeling that mixed observed and latent variables, following the Hayes and Preacher analytical approach [72]. This approach suggests to estimate the conditional effects through the following steps: (1) including in the previously described mediational model the interaction terms of the mediating variables (i.e., forgiveness and unforgiveness of self) with the moderating variable (i.e., age) after mean-centering, and estimating the relationships of these interactions with the outcome variables (i.e., hedonic well-being, eudaimonic well-being, and family conflict); (2) deriving mathematical expressions for the conditional indirect effects as a functions of the estimated parameters; (3) using these expressions to quantify the indirect effects at relatively low (1 SD below M), moderate (M), and high (1 SD above M) levels of the moderator; (4) testing whether these indirect effects are significantly different from zero through computation of their standard errors and bootstrap-derived confidence intervals.

Finally, we conducted a power analysis to determine whether the study's sample size was adequate for the planned analyses. Given that the sample size requirements for SEM are influenced by multiple factors beyond simple rule-of-thumb guidelines - such as the number

of latent factors, indicators, and the strength of factor loadings and correlations [73] - we used the *pwrSEM* app on Shiny [74], based on Monte Carlo simulations, to estimate the power of the regression paths in our hypothesized models. Factor loadings were set at 0.80, reflecting the scales' established reliability in previous studies, except for moral transgression relevance, which was conservatively set at 0.70. With residual covariances set at 0.25, the analysis showed that, with a sample size of 227 and an alpha level of 0.05, the study has at least 80% power to detect direct effect sizes of 0.30 or larger (i.e., at least moderate according to Cohen's criteria [75]), and indirect and interaction effect sizes of 0.09 or larger.

Results

Preliminary analyses

When asked to briefly describe moral transgression related to the pandemic, most participants (49.1%) reported wrongdoing against close others (romantic partners, family members or friends), such as ending or neglecting relationships with them, treating them badly, losing patience or arguing with them. Many participants also reported feeling guilty about having underestimated the severity of the pandemic or not having respected the related restrictions (12.5%); having wasted time neglecting study or work (11.9%); or having been overwhelmed by negative emotions such as fear, anger, and sadness without being able to regulate them (10.0%). The participants who reported a pandemic-related event about which they regretted or felt guilty were not significantly different from those who did not report it with respect to both sociodemographic and well-being indicators. However, the former reported family conflicts that were on average more frequent and intense than the latter (frequency: $M = 1.03$ and $M = 0.76$, $t(324) = 3.774$, $p < .001$; intensity: $M = 0.59$ and $M = 0.45$ $t(324) = 2.542$, $p = .011$).

At the univariate level, the variables were normally distributed, as they did not exceed the previously specified cutoff values. The mean scores showed that participants scored low on one dimension of family conflict (i.e., intensity) and on unforgiveness of self and from moderate to moderately high on the remaining variables (Table 1).

Structural equation models

The fit of the hypothesized mediation model was very good (S-B $\chi^2(109) = 145.416$, $p = .011$; R-CFI = 0.976; R-RMSEA = 0.038; R-AIC = – 72.584) and nonsignificantly different from the one in which the direct links from transgression relevance to hedonic and eudaimonic well-being and family conflict were also estimated (S-B $\chi^2(106) = 142.128$, $p = .011$; R-CFI = 0.977; R-RMSEA = 0.039; R-AIC = – 69.872; S-B$\Delta\chi^2$ (3) = 3.310, $p = .346$). Therefore, the former model was preferred over the latter because of its parsimony. Additionally, the hypothesized mediational model fit the data significantly better than the one in which hedonic well-being, eudaimonic well-being, and family conflict were entered as exogenous latent variables predicting transgression relevance and, indirectly, forgiveness and unforgiveness of self (S-B $\chi^2(109) = 173.445$, $p = .002$; R-CFI = 0.958; R-RMSEA = 0.051; R-AIC = – 44.555). The hypothesized mediational model explained 1% of the variability in hedonic well-being, 21% of the variability in eudaimonic well-being, and 6% of the variability in family conflict (Fig. 1). Inspection of standardized estimates revealed that all factor loadings were significant and greater than|0.54| (Fig. 1).

Consistent with our hypotheses, moral transgression relevance was positively related to both unforgiveness ($\beta = 0.47$) and forgiveness ($\beta = 0.36$) of self: the more severe the transgression and the more the subjects felt responsible for it, the more unforgiving, but also forgiving, were the subjects toward themselves. In turn, forgiveness and unforgiveness of self were significantly associated with eudaimonic well-being ($\beta = 0.21$ and $\beta = -0.41$, respectively) in the expected direction: the more forgiving and the less unforgiving participants were toward themselves, the greater they experienced eudaimonic well-being. Additionally, unforgiveness of self was positively associated with family conflict ($\beta = 0.24$): the more unforgiving participants were toward themselves, the more they had frequent, intense, and unresolved family conflicts. No significant relationship was found between forgiveness or unforgiveness of self and hedonic well-being. When the parameters for forgiveness and unforgiveness of self were constrained to be equal, the R-LM test revealed that, compared with forgiveness of self, unforgiveness of self had significantly stronger relationships with both eudaimonic well-being and family conflict.

When considering the indirect effects, transgression relevance was significantly associated with both eudaimonic well-being ($\beta = -0.12$, $p = .038$) and family conflict ($\beta = 0.11$, $p = .029$) through forgiveness and unforgiveness of self: the more severe the transgression was and attributed to one's own responsibility, the less the subjects experienced eudaimonic well-being and the worse their family conflicts were.

Forgiveness and unforgiveness of self were weakly negatively correlated when controlling for transgression relevance ($\sigma = -0.21$). Additionally, the correlations between hedonic well-being and eudaimonic well-being ($\sigma = 0.21$), between hedonic well-being and family conflict ($\sigma = -0.16$), and between eudaimonic well-being and family conflict ($\sigma = -0.32$) were statistically significant and in the expected direction.

The hypothesized conditional model, in which age moderated the relationships of the two forgiveness

Table 1 Descriptive statistics and Pearson's correlations among the variables

	M	SD	Range	Skewness	Kurtosis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Age	30.04	12.68	19–70	1.40	0.70	-																
2. Transgression severity	4.51	2.59	0–11	-0.01	-0.78	**−0.28**	-															
3. Transgression responsibility	5.19	2.13	0–10	0.02	−0.05	**−0.33**	**0.41**	-														
4. Forgiveness of Self	4.63	1.38	1–7	-0.75	0.36	0.00	**0.19**	**0.27**	-													
5. Unforgiveness of Self	2.33	1.32	1–7	1.07	0.51	0.11	**0.34**	**0.26**	−0.00	-												
6. PGWBI - Anxiety	58.75	20.21	0–100	-0.38	-0.04	0.01	0.03	0.10	0.05	−0.08	-											
7. PGWBI - Depressed mood	75.56	16.89	0–100	-1.77	3.96	**0.15**	−0.10	0.02	0.10	−0.08	**0.70**	-										
8. PGWBI - Positive well-being	47.18	16.85	0–100	0.50	0.49	0.06	−0.13	0.06	0.12	−0.03	**0.66**	**0.70**	-									
9. PGWBI Self-control	66.34	19.71	0–100	-0.35	-0.28	0.05	−0.04	0.08	0.06	−0.03	**0.73**	**0.69**	**0.66**	-								
10. PGWBI -Vitality	57.09	17.96	0–100	-0.34	-0.19	0.03	−0.05	0.09	0.05	−0.03	**0.70**	**0.75**	**0.79**	**0.71**	-							
11. PWB - Environmental mastery	4.14	0.89	1–6	-0.50	0.15	**0.17**	**−0.22**	−0.09	0.13	**−0.39**	0.13	**0.19**	**0.17**	**0.15**	**0.18**	-						
12. PWB - Self-growth	4.67	0.71	1–6	-0.23	-0.18	−0.11	−0.08	0.02	**0.22**	**−0.20**	0.04	0.09	0.09	0.02	0.04	**0.47**	-					
13. PWB - Positive relations	4.62	0.87	1–6	-0.83	0.28	0.00	**−0.19**	0.00	**0.22**	**−0.28**	0.02	0.10	**0.13**	0.02	0.12	**0.63**	**0.43**	-				
14. PWB - Purpose in life	4.34	0.93	1–6	-0.54	-0.12	**0.13**	**−0.14**	−0.02	**0.21**	**−0.29**	0.09	**0.20**	**0.18**	0.11	**0.19**	**0.68**	**0.48**	**0.52**	-			
15. PWB -Self-acceptance	3.95	1.04	1–6	-0.19	-0.42	0.13	**−0.22**	−0.07	**0.16**	**−0.34**	**.16**	**0.21**	**0.22**	**0.19**	0.**19**	**0.75**	**0.44**	**0.65**	**0.61**	-		
16. FC - Frequency	1.03	0.57	0–2	0.06	-0.84	**−0.17**	0.11	0.06	0.04	**0.14**	−0.11	**−0.14**	**−0.14**	**−0.16**	−0.12	**−0.25**	**−0.17**	**−0.14**	**−0.21**	**−0.26**	-	
17. FC - Intensity	0.59	0.45	0–2	0.42	-0.77	**−0.16**	0.**18**	0.10	0.02	**0.20**	−0.09	−0.10	−0.09	**−0.15**	−0.05	**−0.19**	−0.13	**−0.13**	**−0.18**	**−0.20**	**0.67**	-
18. FC- Conflict resolution	1.46	0.48	0–2	-0.83	0.03	**0.14**	−0.11	0.00	0.12	**−0.23**	0.08	0.12	**0.13**	**0.13**	0.10	**0.39**	**0.19**	**0.31**	**0.35**	**0.39**	**−0.56**	**−0.63**

Note. Values greater than|0.13|,|0.17|, and|0.21| are significantly different from zero, with significance levels equal to 0.05, 0.01, and 0.001, respectively; these values are reported in bold

PGWBI = Personal General Well-Being Index; PWB = Personal Well-Being Scale; FC = Family Conflict

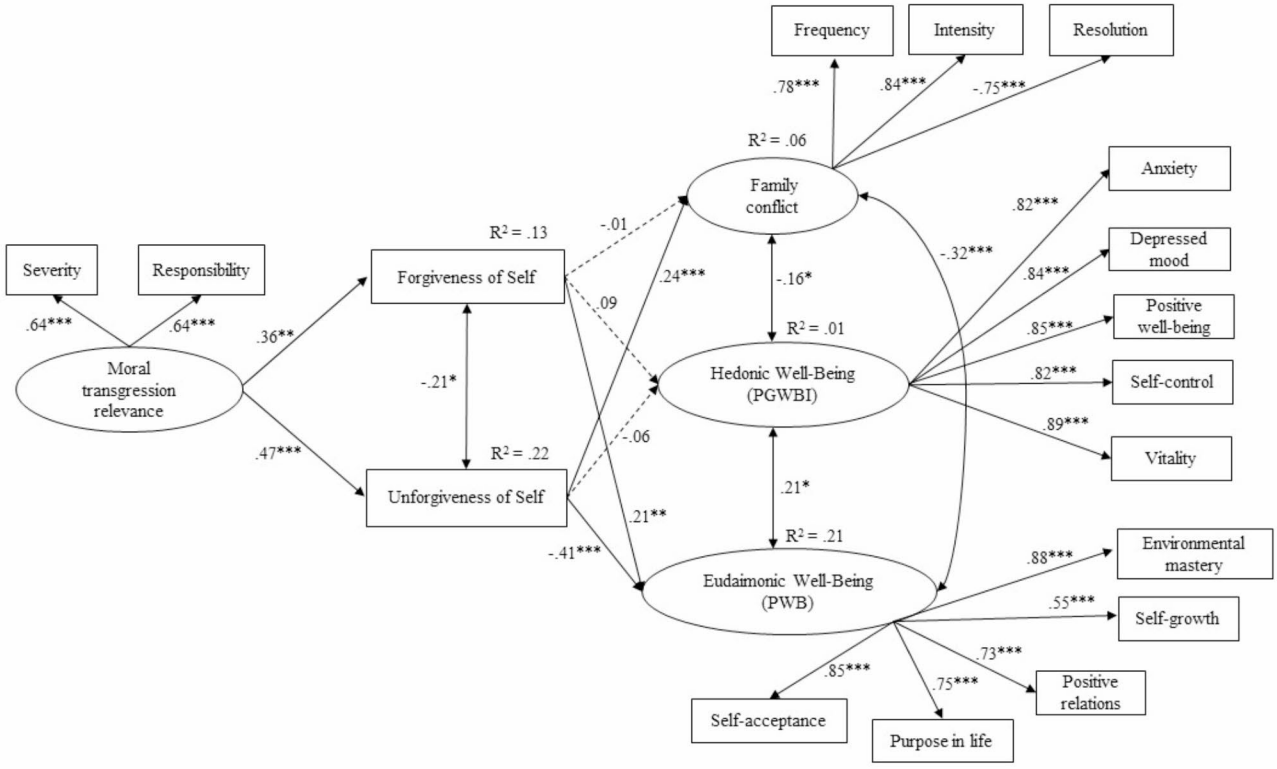

Fig. 1 The final mediation model. *Note*. The reported coefficients are standardized. Significant coefficients are represented by solid lines (*p <.05, **p <.01, ***p <.001), whereas coefficients linked by dashed lines do not reach significance at these thresholds

dimensions with hedonic and eudaimonic well-being and family conflict, showed a good fit (S-B $\chi^2(134) = 216.904$, $p = .000$; R-CFI = 0.958; R-RMSEA = 0.044; R-AIC = – 87.096) and explained slightly greater variance in hedonic well-being (5%) and family conflict (9%) than did the unmoderated mediational model. In addition to the aforementioned relationships, all of which have been consistently replicated in terms of their significance and strength, the model revealed a significant negative interaction between forgiveness of self and age in relation to hedonic well-being ($\beta = -0.18$, $p = .004$), indicating that the association between forgiveness of self and hedonic well-being became weaker with age. Specifically, βs = 0.28, ($p = .001$), 0.11 (*ns*), and – 0.07 (*ns*) were obtained at relatively low (1 SD below M), moderate (M), and relatively high (1 SD above M) age. The indirect effect of transgression relevance on hedonic well-being via forgiveness of self was also significantly moderated by age: it was significant for younger people ($\beta = 0.10$, $p = .002$) when age was 1 SD below M but not for less young ($\beta = 0.02$, *ns*) or older individuals ($\beta = -0.01$, *ns*) when age was 1 SD above M.

Discussion

The present study investigated the role of state self-forgiveness as a coping mechanism in the context of pandemic-related moral transgressions, with a specific focus on its associations with well-being outcomes and family conflict. Specifically, relying on existing literature, the study assumed that self-forgiveness would mediate the associations of moral transgression severity and accountability with psychological well-being and family conflict and that the mediating role of self-forgiveness would be moderated by participants' age.

As for the moral transgressions perpetrated because of the pandemic, participants mostly reported wrongdoing against close others (e.g., ending or neglecting relationships with them, mistreating them, losing patience, or arguing with them). The participants who reported these events experienced more frequent, intense, and unresolved family conflicts compared with those who did not. As argued by the Family Stress Model [76], times of crisis increase tensions and conflicts in interpersonal and family relationships [see also 77, 78], suggesting the need for interventions aimed at addressing family conflict during challenging times.

Furthermore, we found support for the hypothesized mediation model, indicating that moral transgression relevance was significantly associated with psychological well-being and family conflict via self-forgiveness. Specifically, the more participants perceived their transgressions as severe and felt responsible for them, the more likely they were to experience both forgiveness and

unforgiveness of self. This finding supports the idea that acknowledging the seriousness of one's actions is essential for genuine self-forgiveness, but it also increases the emotional burden that can hinder this process [36, 41].

In turn, self-forgiveness was associated with eudaimonic well-being when controlling for transgression relevance: individuals who exhibited higher levels of forgiveness of self and lower levels of unforgiveness of self-reported greater eudaimonic well-being. These results extend previous research on positive mental health outcomes of self-forgiveness [30, 32] by showing that, even during a period as critical as the pandemic, forgiving oneself for even a single wrongdoing was associated with greater eudaimonic well-being [see also 34, 39]. Under the above circumstances, eudaimonic well-being, which encompasses a sense of purpose in life and self-actualization, seemed to be more sensitive to the protective role of self-forgiveness than was hedonic well-being. Indeed, when the effects of age were not considered, neither forgiveness of self nor unforgiveness of self was significantly related to hedonic well-being in this study. This unexpected finding might be due to the nature of hedonic well-being, which consists of experiencing transient affective states that might be more susceptible to everyday fluctuations caused by pandemic trends than to the more enduring features of eudaimonic well-being. This difference may have been accentuated by methodological choices: hedonic well-being was measured in relation to the previous month, whereas eudaimonic well-being was assessed in general, without specifying a time period. Future research might explore this distinction further to clarify the differential relationships of self-forgiveness with different dimensions of well-being.

Our findings also revealed that, while controlling for moral transgression relevance, unforgiveness of self was positively associated with family conflict, reinforcing the notion that self-condemnation can spill over into interpersonal relationships. This aligns with prior studies that have documented the detrimental effects of self-unforgiveness on relationship quality [e.g., 32, 37]. The heightened stress and negative emotions associated with the unforgiveness of self likely contribute to more frequent, intense, and unresolved family conflicts, exacerbating the challenges posed by the pandemic's unprecedented circumstances. The identification of family conflict as a potential consequence of unforgiveness of self highlights the importance of addressing intrapersonal processes in promoting familial harmony and cohesion during times of increased stress and uncertainty. In this vein, interventions aimed at fostering self-forgiveness [for a review, see 79] may offer promising ways to improve both family dynamics and eudaimonic well-being.

In line with previous research showing that unforgiveness is a better predictor of relational outcomes than forgiveness [e.g., 37, 44, 80], unforgiveness of self was more strongly related to both eudaimonic well-being and family conflict than forgiveness of self. One possible explanation is rooted in evolutionary theory, suggesting that the ability to identify and manage negative emotions or situations may offer greater survival advantages than the ability to manage positive emotions [e.g., 81].

Finally, it is worth noting that age moderated the relationship between forgiveness of self and hedonic well-being in that the benefits of forgiving oneself for pandemic-related moral transgressions tended to decrease with age. Specifically, younger participants showed a stronger positive association between forgiveness of self and hedonic well-being, whereas this relationship was weaker and nonsignificant for older adults. This finding is consistent with theories of socioemotional functioning and forgiveness across the lifespan, which posit that older adults might derive less immediate emotional benefit from self-forgiveness because, compared with younger adults, they are less likely to commit significant offences and invest time and energy in the effortful process of self-forgiveness [47]. This argument seems to be partially supported by our data, which revealed a negative correlation between age and transgression severity and responsibility. Although the exact mechanisms underlying this age-related variability require further investigation, it is also possible that older adults may employ different coping strategies or prioritize different aspects of well-being than younger individuals do. This finding underscores the importance of considering developmental trajectories and life stage-specific coping mechanisms in understanding individuals' responses to moral transgressions and their implications for hedonic well-being.

Our results reveal for the first time that individual and relational well-being can benefit from low levels of self-unforgiveness and high levels of self-forgiveness for moral transgressions committed not only in everyday life but also in the aftermath of large-scale crises, such as the Covid-19 pandemic. It is likely that the protective role of self-forgiveness may also apply to moral transgressions committed during other severe community or global crises, including not only health-related events but also environmental challenges (e.g., natural disasters) or socio-political upheavals (e.g., terrorist attacks, wars). In these contexts, there is evidence that guilt, mental health difficulties and disrupted relationships are common responses to such traumatic events [e.g., 82–85], and self-forgiveness may therefore help mitigate these effects.

Limitations and future directions

The present study's results should be interpreted in light of several limitations.

First, the cross-sectional nature of the data prevents us from drawing causal inferences from the results. Our findings document associations between transgression relevance, self-forgiveness, psychological well-being, and family conflict, but longitudinal research is needed to examine whether the same associations emerge over time. Replicating our findings via longitudinal data would provide a stronger basis for inferring the direction of effects.

Second, the sample was one of convenience, as participants were selected on the basis of their willingness to participate in the study. Moreover, the data were collected during a very peculiar period—that is, during a pandemic outbreak—that was unique in many ways. As such, the generalizability of our findings may be limited. Future research could benefit from employing more diverse and representative samples and focusing on more heterogeneous challenging situations to enhance the external validity of the findings.

Additionally, the use of self-reports may introduce biases and social desirability effects, which could influence participants' responses. Future studies could address this limitation by including objective measures or adopting multi-informant approaches, incorporating reports from different family members. Furthermore, the Responsibility Scale [58] demonstrated a relatively low internal consistency. This may be due to issues related to the scale's translation, which was necessary because it had never been used before in Italy, where the research was conducted. Additionally, the scale's brevity may have contributed, as measures with fewer items often yield lower alpha values [86]. Future research should validate the Italian version of the scale and, if necessary, supplement it with additional items to improve its internal consistency. Additionally, the use of a state self-forgiveness measure, which refers to only one moral transgression, may have underestimated the magnitude of the effects found. It is therefore advisable to examine the links of self-forgiveness with hedonic and eudaimonic well-being as well as with family relationships using trait scales in the future.

Conclusions

In summary, our findings provide initial evidence that self-forgiveness can mitigate the negative effects of pandemic-related moral transgressions. In particular, we observed that unforgiveness of self was linked to lower eudaimonic well-being and greater family conflict, highlighting the possible intrapersonal and interpersonal consequences of self-directed negative emotions. Conversely, self-forgiveness was associated with greater eudaimonic well-being and, among young people, with greater hedonic well-being. These findings have important implications for interventions aimed at promoting psychological resilience and familial harmony in the face of adversity. By fostering self-forgiveness, individuals may not only alleviate their own distress but also contribute to the well-being of their families. Interventions targeting self-forgiveness may offer promising ways to promote individual and relational well-being, particularly during times of crisis.

Abbreviations

AIC	Akaike Information Criterion
CFI	Comparative Fit Index
COVID-19	COronaVirus Disease of 2019
EQS	EQuations with Software
FC	Family Conflict
ML	Maximum Likelihood
PGWBI	Psychological General Well-Being Index
PWB	Psychological Well-Being
R	Robust
RMSEA	Root-Mean-Square Error of Approximation
S–B χ^2	Satorra–Bentler scaled chi-square
SPSS	Statistical Package for the Social Sciences

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s40359-025-02513-6.

Supplementary Material 1

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Not applicable.

Author contributions

FGP performed initial literature review, study design and implementation, data collection, data analysis and interpretation, and preparation of the manuscript. LC assisted with data analysis and preparation of the overall manuscript. IE assisted with literature review, study implementation, and data collection. FDF consulted on the overall design and contributed to the final draft of the manuscript.

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Data availability

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Ethical review and approval were not required for this study in accordance with the local legislation and institutional requirements (see the ethical guidelines of the Italian Psychological Association (http://www.aipass.org/node/11560, accessed on 13 April 2020) and of ethics committee of University of Bergamo [https://www.unibg.it/ateneo/organizzazione-e-struttura/organi-e-organismi/comitato-lintegrita-e-letica-ricerca; accessed on 13 April 2020]. Participants provided written informed consent prior to participating in the present study.

Consent of publication

Not applicable.

Competing interests

The authors declare no competing interests.

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