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# Do positive reappraisals moderate the association between childhood emotional abuse and adult mental health?

Jong Hyun Jung 

School of Social Sciences, Nanyang Technological University, Singapore

## ABSTRACT

**Background:** It is well-established that childhood emotional abuse is associated with poor mental health in adulthood. Yet, less is known about the ways that this association is contingent upon psychological resources.

**Aims:** The purpose of this study is to examine whether positive reappraisals moderate the association between childhood emotional abuse and adult mental health.

**Methods:** This study employs regression analyses using nationally representative, cross-sectional data from the 1995–1996 National Survey of Midlife Development in the United States ( $N = 3,034$ ).

**Results:** The analysis shows that childhood emotional abuse is positively associated with negative affect whereas it is negatively associated with positive affect in adulthood. Yet, positive reappraisals reduce the positive association between childhood emotional abuse and negative affect. Similarly, positive reappraisals weaken the negative association between childhood emotional abuse and positive affect.

**Conclusions:** These observations indicate that positive reappraisals act as a countervailing mechanism that buffers the deleterious association of childhood emotional abuse with adult mental health.

## ARTICLE HISTORY

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Childhood emotional abuse has an enduring effect on mental health over the life course (Lee, 2015). It has received less scholarly attention than childhood physical abuse because it has been considered as less severe and harmful than physical abuse (Crow et al., 2014). However, a growing literature provides evidence that childhood emotional abuse is a stronger predictor of a range of later mental health outcomes compared to childhood physical abuse (Teicher et al., 2006). In fact, a large body of literature shows that retrospective reports of emotional abuse are associated with various negative mental health outcomes in adulthood, including psychiatric symptoms (Teicher et al., 2006), negative affect (Greenfield & Marks, 2010a), and suicidality (Lee, 2015). Despite this knowledge, a question remains as to why some adults with histories of childhood emotional abuse report better mental health than others with similar experiences. Simply put, why are some adults more resilient to the detrimental effects of childhood emotional abuse than others?

The current study addresses this question by examining whether positive reappraisals moderate the association between childhood emotional abuse and adult mental health. Positive reappraisals refer to an individual's tendency to look on the brighter side of events. Although the lifespan motivational theory identifies various components of secondary control (Heckhausen et al., 2010), positive reappraisals can be conceptualized as an important indicator of secondary control that involves an individual's attempt to

control one's own emotion to adapt psychologically to one's life conditions. Theoretically, in positive reappraisals, individuals attend to the negative event, but concentrate on the good in what has happened. This, in turn, may help them regulate their emotions in the face of hardships (Folkman & Moskowitz, 2000). Viewed in this way, positive reappraisals may function as a compensatory mechanism that mitigates the harmful effects of stressful events on mental health. In support of this view, empirical research shows that positive reappraisals are linked with greater resilience to stress, allowing individuals to more effectively cope with stressful circumstances (Tugade & Fredrickson, 2004; Versey, 2015). Despite this theoretical and empirical plausibility, there is a lack of clear evidence about the ways that positive reappraisals moderate the link between childhood emotional abuse and mental health in adulthood. The current study analyzes cross-sectional data from a national sample of American adults in an effort to fill the gap in the literature. Broadly speaking, the objective of the current study is to make a contribution to the literature by deepening our knowledge of the ways that childhood abuse intersects with psychological resources to influence adult mental health.

## Theoretical and empirical background

A life course perspective can serve as a useful framework to explicate the link between childhood emotional abuse and adult mental health (Elder, 1974). A key insight from this

perspective centers around the cumulative effects of early disadvantages—that is, childhood adversities may set off a chain of risks that can threaten mental health in later life. Research has shown that childhood emotional abuse has long-term effects by modifying the psychological and developmental processes of exposed persons. For example, childhood emotional abuse affects mental health in adulthood by damaging beliefs about the self and others (Wright et al., 2009) and preventing the development of healthy emotion regulation abilities (Crow et al., 2014). In the stress process framework, the relationship between childhood emotional abuse and adult mental health captures the complex situation where exposure to one stressor leads to exposure to other stressors, a process referred to as “stress proliferation” (Pearlin et al., 1997). Given that childhood emotional abuse sets in motion the process of accumulation of risks over time, the current study proposes that childhood emotional abuse may function as a primary stressor and generate subsequent stressors that, in turn, lead to poor mental health in adulthood. Consistent with this idea, prior studies found that childhood abuse is associated with an array of stressors (e.g. marital conflict, financial hardship, and strained family relationships), and that these stressful conditions adversely influence mental health later in the life course (Ferraro et al., 2016).

However, the stress process model also holds that people differ in the extent to which their mental health is influenced by exposure to a stressor, and that psychosocial resources are likely to weaken the deleterious association of stress with mental health (Pearlin, 1989). Cast within the context of the current study, this view suggests that positive reappraisals may moderate the extent to which childhood emotional abuse creates another stressor, thereby mitigating the otherwise harmful mental health consequences of childhood emotional abuse in adulthood. Positive reappraisals may help individuals see the positive in a bad situation, protecting individual well-being after the experiences of failure and loss (Wrosch et al., 2000). In some sense, childhood emotional abuse reflects negative life events that happened in early stages of life that cannot be undone. Thus, what a person can do may be to accept the fact that it happened and move on with one’s life. Positive reappraisals may be helpful in that respect, promoting a sense of peaceful acceptance that can minimize the development of mental health problems later in life (Nunn, 1996). Also, by accepting the reality of the situation, victims of childhood emotional abuse are likely to be fully engaged with their lives, take constructive actions to make their current situations better, and employ various adaptive coping strategies. For example, positive reappraisals may lead to forgiveness of the perpetrators of emotional abuse, which may offset early trauma (Schafer et al., 2014). Finally, individuals with high levels of positive reappraisals may reinterpret childhood emotional abuse as something that has potential for long-term gain (e.g. personal growth), rather than a misfortune that undermines well-being (Versey, 2015). Such reframing may make the experiences of childhood emotional abuse less distressing. Collectively, these theoretical and empirical

arguments provide a cogent basis for the following hypothesis:

H1: Positive reappraisals will weaken the negative association between childhood emotional abuse and adult mental health.

## Data and method

### Study participants

In order to address the hypothesis, the current study employs cross-sectional data from the National Survey of Midlife Development in the United States (MIDUS), 1995–1996. The MIDUS is a population-based, nationally representative study of men and women who are English-speaking adults, aged 20 to 74 years. Based on random digit dialing procedures, survey participants were selected. In addition, disproportionate stratified sampling was used to oversample males between 65 and 74. The data collection consisted of an initial telephone interview that lasted about 30 min along with a follow-up mailed questionnaire. The response rate from the initial telephone interviews was 70 percent. After this telephone interview is completed, individuals were mailed and asked to complete a self-administered, follow-up questionnaire. The response rate for the self-administered mail questionnaire is 86.8 percent. Therefore, the overall response rate was 60.76 percent ( $.70 \times .868 = .6076$ ). The number of respondents who successfully participated in both the telephone interview and mail survey is 3,034.

Of the 3,034 participants, 258 respondents (approximately 8.5 percent) provide missing data for study variables. In order to deal with missing data, the current study uses multiple imputation techniques in Stata 13. In addition, the current analysis does not employ weights because the analytic models in the study include most of the variables that were used to generate the post-stratification weights (Winship & Radbill, 1994). Moreover, prior to creating interaction terms, variables were centered in order to reduce multicollinearity between the interaction coefficient and lower-order terms (Aiken & West, 1991). Finally, the current study reviews the variance inflation factors (VIFs) and finds that all of them are less than 2, which suggests that multicollinearity does not cause any problem.

### Measures

#### Negative and positive affect

The dependent variables in the study include negative and positive affect. Negative affect was measured with a six-item mean index based on the question asking, “During the past 30 days, how much of the time did you feel...” The six items include “hopeless,” “nervous,” “restless or fidgety,” “so sad nothing could cheer you up,” “that everything was an effort,” and “worthless.” The response options range from 1 = “none of the time” to 5 = “all of the time.” The Cronbach’s alpha for this construct is .868. Given that most respondents reported low levels of negative affect, the distribution is highly positively skewed (skewness = 1.81; kurtosis

= 7.13). In order to reduce skewness, the current study took the natural logarithm and used it as a dependent variable (skewness = .84; kurtosis = 3.18). Positive affect was measured with a six-item mean index that addresses the question asking, "During the past 30 days, how much of the time did you feel..." The six items include "calm and peaceful," "cheerful," "extremely happy," "full of life," "in good spirits," and "satisfied." The response categories range from 1 = "none of the time" to 5 = "all of the time." The Cronbach's alpha for this index is .910.

### **Childhood emotional abuse**

In order to measure childhood emotional abuse, the current study used two indicators to create the summary score that reflects childhood emotional abuse. These two indicators refer to emotional abuse that is perpetrated by mother (1) or father (2). Consistent with the Conflict Tactics Scale (Straus, 1979), the survey asks respondents to indicate how often they experienced as a child a series of emotional abusive acts perpetrated by their mother (or the woman who raised them) and father (or the man who raised them). These emotional abusive acts consist of "insulted you or swore at you; sulked or refused to talk to you; stomped out of the room; did or said something to spite you; threatened to hit you; smashed or kicked something in anger." Response categories include 1 = "often," 2 = "sometimes," 3 = "rarely," and 4 = "never." Following the procedure of previous scholars (Schafer et al., 2014), the current study coded respondents who reported experiencing emotional abuse either "sometimes" or "often" from mother or father as 1 (1 = "considered as having experienced emotional abuse"), whereas those who reported experiencing emotional abuse either "rare" or "never" from any of the same parties were coded as 0 (0 = "considered as not having experienced emotional abuse"). Thus, the measure of childhood emotional abuse ranges from 0 (e.g. never experienced emotional abuse by mother or father) to 2 (e.g. experienced emotional abuse by both mother and father).

### **Positive reappraisals**

Positive reappraisals were measured with a four-item mean index. The four items include "I find I usually learn something meaningful from a difficult situation," "When I am faced with a bad situation, it helps to find a different way of looking at things," "Even when everything seems to be going wrong, I can usually find a bright side to the situation," and "I can find something positive, even in the worst situations." The response categories range from 1 = "not at all" to 4 = "a lot." The Cronbach's alpha for this construct is .777.

### **Covariates**

The current study controls for several variables that previous studies found to be related to childhood abuse, mental health, and positive reappraisals (Afifia et al., 2009; Greenfield & Marks, 2010a; Schafer et al., 2014). These

variables include gender (1 = "female," 0 = "male"), age (in years), race ("white," "black," and "other races" where "whites" serve as a reference category), marital status ("married," "divorced/separated," "widowed," and "never married" where "married" serve as a reference group), educational attainment (from 1 = "no school/some grade school" to 12 = "PhD, Ed.D, MD, DDS, LLB, LLD, JD, or other professional degree"), and household income (logged).

In addition to demographic controls, childhood background such as parental divorce, childhood SES, and mental health problems in adolescence is associated with the frequency of childhood abuse as well as adult mental health (Afifia et al., 2009; Ferraro et al., 2016). Therefore, the current study adjusts for parental divorce, childhood SES, and adolescent mental health problems. For parental divorce, respondents were asked whether their parents were divorced or separated (based on questions probing if they lived with both of their biological parents up until they were 16). Response options include 1 = "yes" and 0 = "no." Childhood SES was measured with an item asking "When you were growing up, was your family better off or worse off financially than the average family was at that time?" Response options range from 1 = "a lot worse off" to 7 = "a lot better." The current study measure adolescent mental health problems based on self-rated mental health at the age of 16. Response options range from 1 = "poor" to 5 = "excellent." Following the literature (Turiano et al., 2017), the current study coded survey participants who report their adolescent mental health as good, very good, or excellent as 0 and those reporting adolescent mental health as poor or fair as 1.

Moreover, the current study adjusts for childhood physical abuse in light of the fact that in families where there is physical abuse, emotional abuse is also highly likely to be present (Schafer et al., 2014). Thus, it would be important to control for childhood physical abuse in order to isolate the net effects of childhood emotional abuse on adult mental health. The survey asked respondents to indicate how often they experienced as a child a series of physical abusive acts perpetrated by their mother (or the woman who raised them) and father (or the man who raised them). These physical abusive acts consist of "pushed, grabbed, or shoved you; slapped you; threw something at you; kicked, bit, or hit you with a fist; hit or tried to hit you with something; beat you up; choked you; burned or scalded you." The measurement of childhood physical abuse follows the same procedure that was taken to assess childhood emotional abuse.

Further, the current study controls for health and health behaviors in adulthood that may be related to the outcomes of interest in the study. Some research shows that childhood abuse leads to greater lifetime smoking (Ferraro et al., 2016) that in turn has negative consequences for adult mental health. Hence, the current study adjusts for smoking behavior, which is measured with a set of binary variables representing nonsmokers, past smokers, and current smokers. Nonsmokers serve as the reference category. In addition, in light of prior evidence that physical health is an important predictor of mental health (Schnittker, 2005), the current

**Table 1.** Descriptive statistics for all study variables ( $N = 3,034$ ).

| Variables                         | Mean or % | SD     | Range        |
|-----------------------------------|-----------|--------|--------------|
| <i>Focal variables</i>            |           |        |              |
| Negative affect                   | 1.571     | .641   | 1–5          |
| Positive affect                   | 3.366     | .744   | 1–5          |
| Childhood emotional abuse         | .480      | .696   | 0–2          |
| Positive reappraisals             | 3.156     | .607   | 1–4          |
| <i>Covariates</i>                 |           |        |              |
| Female                            | 51.5%     | –      | 0, 1         |
| Age                               | 47.056    | 13.119 | 20–74        |
| White                             | 85.3%     | –      | 0, 1         |
| Black                             | 6.6%      | –      | 0, 1         |
| Other races                       | 8.1%      | –      | 0, 1         |
| Married                           | 65.2%     | –      | 0, 1         |
| Divorced/separated                | 18.4%     | –      | 0, 1         |
| Widowed                           | 5.9%      | –      | 0, 1         |
| Never married                     | 11.5%     | –      | 0, 1         |
| Education                         | 6.704     | 2.471  | 1–12         |
| Household income (logged)         | 10.752    | .965   | 6.214–12.611 |
| Childhood SES                     | 4.083     | 1.292  | 1–7          |
| Parental divorce                  | 12.9%     | –      | 0, 1         |
| Adolescent mental health problems | 7.6%      | –      | 0, 1         |
| Childhood physical abuse          | .367      | .641   | 0–2          |
| Past smoker                       | 30.5%     | –      | 0, 1         |
| Current smoker                    | 22.9%     | –      | 0, 1         |
| Non-smoker                        | 47.6%     | –      | 0, 1         |
| Self-rated physical health        | 3.453     | .995   | 1–5          |
| Neuroticism                       | 2.497     | .509   | 1–4          |

Note: Standard deviations for binary variables are excluded.

study controls for self-rated physical health in adulthood. Self-rated physical health is measured with a question that asks: “In general, would you say your physical health is excellent, very good, good, fair, or poor?” The response options range from 1 = “poor” to 5 = “excellent.”

Finally, the current study adjusts for neuroticism that may be linked to adult mental health (Gamble et al., 2006) and positive reappraisals (Liu et al., 2020). The inclusion of this measure in the models ensures that the moderating effects of positive reappraisals extend beyond the influences of neuroticism. In order to measure neuroticism, respondents were presented with four adjectives including moody, worrying, nervous, and calm, and then asked how much these words describe themselves. The response options range from 1 = “not at all” to 4 = “a lot.” The mean of the responses for these four adjectives was taken to create an index for neuroticism (Cronbach’s alpha = .745). Table 1 presents descriptive statistics for all study variables.

## Results

Table 2 displays the results of multivariate regression analyses in which negative affect (logged) is the dependent variable. Model 1 includes focal measures as well as covariates. It reveals that childhood emotional abuse is positively associated with negative affect in adulthood ( $b = .059$ ;  $SE = .009$ ;  $p < .001$ ). In addition, positive reappraisals are negatively associated with negative affect ( $b = -.095$ ;  $SE = .008$ ;  $p < .001$ ). Model 2 adds to the interactions between childhood emotional abuse and positive reappraisals to assess whether positive reappraisals modify the association between childhood emotional abuse and negative affect. It shows that the interaction term between childhood emotional abuse and positive reappraisals has a significant and negative

coefficient ( $b = -.032$ ;  $SE = .012$ ;  $p < .01$ ). In order to have a better understanding of the contingent relationships, the current study performed simple slopes analyses (Figure 1) and revealed that for respondents with lower levels of positive reappraisals (e.g. at least one standard deviation below the mean), childhood emotional abuse is significantly associated with greater negative affect in adulthood ( $b = .060$ ;  $SE = .022$ ;  $p < .01$ ). By contrast, for respondents with higher levels of positive reappraisals (e.g. at least one standard deviation above the mean), childhood emotional abuse is not associated with negative affect in adulthood ( $b = .034$ ;  $SE = .024$ ;  $p > .10$ ). These patterns indicate that the positive association between childhood emotional abuse and negative affect is offset among individuals who report higher levels of positive reappraisals. Taken together, these observations are consistent with H1.

Table 3 presents the results from regression models where positive affect serves as the outcome variable. Model 1 includes focal variables as well as covariates. It demonstrates that childhood emotional abuse is negatively associated with positive affect in adulthood ( $b = -.110$ ;  $SE = .021$ ;  $p < .001$ ). In addition, positive reappraisals are positively associated with positive affect ( $b = .360$ ;  $SE = .019$ ;  $p < .001$ ). Model 2 includes the interaction terms between childhood emotional abuse and positive reappraisals to evaluate whether positive reappraisals moderate the association between childhood emotional abuse and positive affect. It reveals that the coefficient for the interaction term is significant and positive ( $b = .054$ ;  $SE = .026$ ;  $p < .05$ ), indicating childhood emotional abuse significantly intersects with positive reappraisals to influence positive affect. In order to probe this significant interaction effect, the current study conducted simple slopes analyses (Figure 2) and found that for respondents with lower levels of positive reappraisals (e.g. at least one standard deviation below the mean), childhood emotional abuse is marginally significantly associated with less positive affect in adulthood ( $b = -.083$ ;  $SE = .048$ ;  $p < .10$ ). By contrast, for respondents with higher levels of positive reappraisals (e.g. at least one standard deviation above the mean), childhood emotional abuse is not associated with positive affect in adulthood ( $b = -.051$ ;  $SE = .061$ ;  $p > .10$ ). These observations suggest that the negative association between childhood emotional abuse and positive affect is offset among individuals who report higher levels of positive reappraisals. Collectively, these findings lend further support to H1.

## Discussion

Previous literature has established that childhood emotional abuse is negatively associated with adult mental health (Lee, 2015; Teicher et al., 2006). Given this prior evidence, it would be important to examine the factors that modify the association between childhood emotional abuse and mental health in adulthood. The current study focuses on positive reappraisals and assesses their role in shaping the link between childhood emotional abuse and adult mental health. The current analyses demonstrate that childhood

**Table 2.** OLS regression of negative affect (logged) on childhood emotional abuse, positive reappraisals, and interactions ( $N = 3,034$ ).

| Variables   | Model 1         | Model 2         |
|---|-----------------|-----------------|
| <i>Focal variables</i>                            |                 |                 |
| Childhood emotional abuse                         | .059 (.009)***  | .055 (.009)***  |
| Positive reappraisals                             | -.095 (.008)*** | -.094 (.008)*** |
| <i>Interactions</i>                               |                 |                 |
| Childhood emotional abuse * Positive reappraisals | -               | -.032 (.012)**  |
| <i>Covariates</i>                                 |                 |                 |
| Women   | .035 (.010)**   | .034 (.010)**   |
| Age   | -.001 (.000)*** | -.001 (.000)*** |
| Black <sup>a</sup>                                | -.031 (.021)    | -.029 (.021)    |
| Other races <sup>a</sup>                          | -.004 (.019)    | -.003 (.019)    |
| Divorced/separated <sup>b</sup>                   | .032 (.014)*    | .034 (.014)*    |
| Widowed <sup>b</sup>                              | .035 (.023)     | .036 (.023)     |
| Never married <sup>b</sup>                        | .018 (.017)     | .019 (.017)     |
| Education   | .003 (.002)     | .003 (.002)     |
| Household income (logged)                         | -.022 (.006)**  | -.020 (.006)**  |
| Childhood SES                                     | -.003 (.004)    | -.003 (.004)    |
| Parental divorce                                  | .014 (.015)     | .014 (.015)     |
| Adolescent mental health problems                 | .065 (.020)**   | .064 (.020)**   |
| Childhood physical abuse                          | .005 (.010)     | .006 (.010)     |
| Past smoker <sup>c</sup>                          | .016 (.012)     | .016 (.012)     |
| Current smoker <sup>c</sup>                       | .020 (.013)     | .021 (.013)     |
| Self-rated physical health                        | -.069 (.005)*** | -.070 (.005)*** |
| Neuroticism                                       | .256 (.010)***  | .256 (.010)***  |
| Constant  | .250 (.083)**   | .250 (.083)**   |
| Adjusted R-squared                                | .344            | .345            |

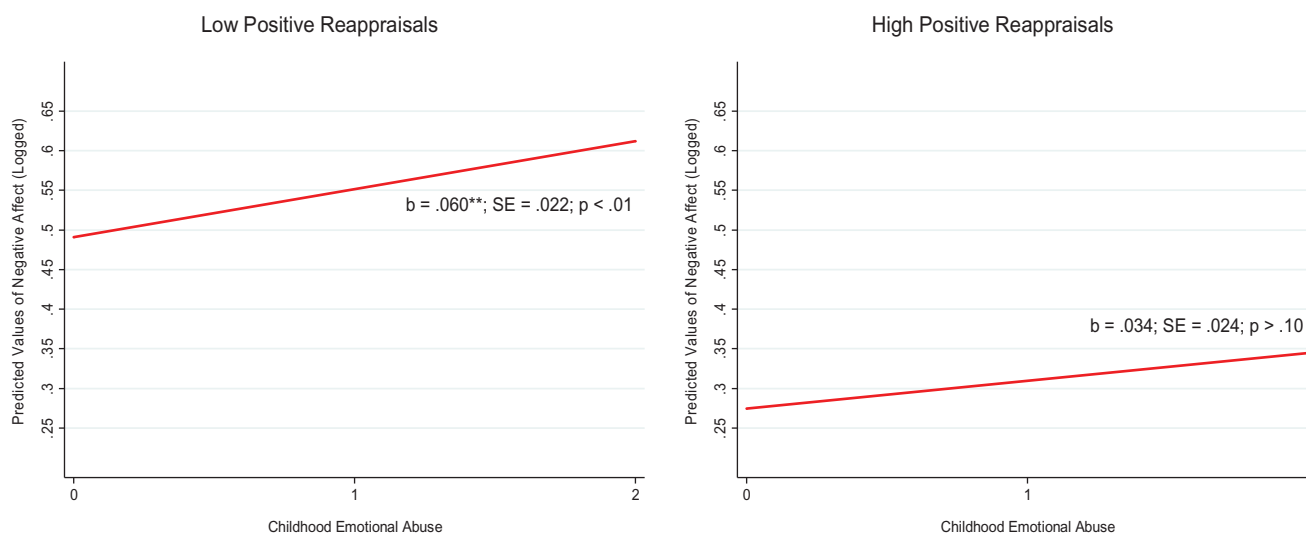
Note: Unstandardized coefficients are presented with standard errors in parentheses.

<sup>a</sup>Compared with Whites.

<sup>b</sup>Compared with Married.

<sup>c</sup>Compared with Non-smoker.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



**Figure 1.** The association between childhood emotional abuse and negative affect (logged) by levels of positive reappraisals. Notes: This figure represents simple slopes (e.g. unstandardized coefficients) of childhood emotional abuse predicting negative affect for respondents with lower levels of positive reappraisals (e.g. at least one standard deviation below the mean) and respondents with higher levels of positive reappraisals (e.g. at least one standard deviation above the mean).  $+p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

emotional abuse is associated with higher levels of negative affect and lower levels of positive affect. Yet, positive reappraisals moderate these associations. Specifically, positive reappraisals buffer the positive association between childhood emotional abuse and negative affect. In addition, positive reappraisals also buffer the negative association between childhood emotional abuse and positive affect.

The findings in the study contribute to the general psychological interest in the ways that psychological resources affect individuals' psychological well-being, especially during

times of stress (Versey, 2015). The current analyses show that positive reappraisals are associated with less negative affect and greater positive affect. Further, positive reappraisals weaken the detrimental association between childhood emotional abuse and adult mental health. In this respect, the current study documents that positive reappraisals serve as a protective factor in the context of childhood emotional abuse. Viewed in this way, the findings in the study align with a core argument in the stress process theory that the impact of a stressor on mental health is

**Table 3.** OLS regression of positive affect on childhood emotional abuse, positive reappraisals, and interactions ( $N = 3,034$ ).

| Variables   | Model 1         | Model 2         |
|---|-----------------|-----------------|
| <i>Focal variables</i>                            |                 |                 |
| Childhood emotional abuse                         | -.110 (.021)*** | -.107 (.021)*** |
| Positive reappraisals                             | .360 (.019)***  | .359 (.019)***  |
| <i>Interactions</i>                               |                 |                 |
| Childhood emotional abuse * Positive reappraisals | -               | .054 (.026)*    |
| <i>Covariates</i>                                 |                 |                 |
| Women   | -.035 (.023)    | -.034 (.023)    |
| Age   | .002 (.001)*    | .002 (.001)*    |
| Black <sup>a</sup>                                | .139 (.046)**   | .138 (.046)**   |
| Other races <sup>a</sup>                          | .084 (.043)     | .082 (.043)     |
| Divorced/separated <sup>b</sup>                   | -.094 (.032)**  | -.096 (.032)**  |
| Widowed <sup>b</sup>                              | -.059 (.052)    | -.060 (.052)    |
| Never married <sup>b</sup>                        | -.038 (.039)    | -.040 (.039)    |
| Education   | -.023 (.005)*** | -.023 (.005)*** |
| Household income (logged)                         | .015 (.014)     | .015 (.014)     |
| Childhood SES                                     | .018 (.009)*    | .018 (.009)*    |
| Parental divorce                                  | -.056 (.034)    | -.055 (.034)    |
| Adolescent mental health problems                 | -.125 (.044)**  | -.124 (.044)**  |
| Childhood physical abuse                          | .007 (.023)     | .006 (.023)     |
| Past smoker <sup>c</sup>                          | -.050 (.027)    | -.050 (.027)    |
| Current smoker <sup>c</sup>                       | -.071 (.030)*   | -.073 (.030)*   |
| Self-rated physical health                        | .147 (.012)***  | .148 (.012)***  |
| Neuroticism                                       | -.385 (.023)*** | -.384 (.023)*** |
| Constant  | 3.686 (.185)*** | 3.687 (.185)*** |
| Adjusted R-squared                                | .299            | .300            |

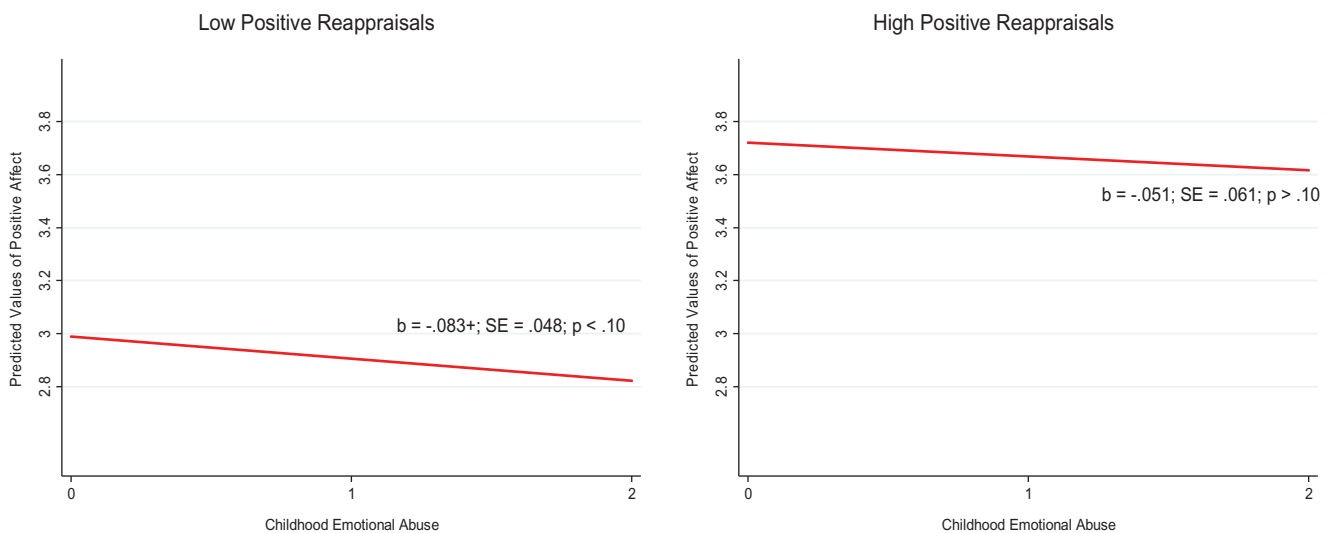
Note: Unstandardized coefficients are presented with standard errors in parentheses.

<sup>a</sup>Compared with Whites.

<sup>b</sup>Compared with Married.

<sup>c</sup>Compared with Non-smoker.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .



**Figure 2.** The association between childhood emotional abuse and positive affect by levels of positive reappraisals. Notes: This figure represents simple slopes (e.g. unstandardized coefficients) of childhood emotional abuse predicting positive affect for respondents with lower levels of positive reappraisals (e.g. at least one standard deviation below the mean) and respondents with higher levels of positive reappraisals (e.g. at least one standard deviation above the mean).  $+p < .10$ ; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

contingent upon psychological resources (Pearlin, 1989). Moreover, they address the heterogeneity in well-being among the population of adults with histories of childhood emotional abuse; individuals with higher levels of positive reappraisals may be resilient to the adverse effects of childhood emotional abuse and exhibit better mental health in later life, whereas others with lower levels of positive reappraisals may show poorer well-being outcomes. Collectively, the results in the study illuminate the ways that psychological resources may be beneficial for mental health not

only through a direct effect but also by counteracting the noxious effects of stress on mental health.

Moreover, the current study adds to the literature on psychological resilience factors that can improve adult mental health in the face of childhood emotional abuse. Given that psychological resources are a complex, multifaceted construct, scholars have not explored all of the ways in which psychological resources may influence the relationship between childhood emotional abuse and adult mental health. Even so, some existing research has demonstrated

that a number of psychological resources are helpful for those with histories of childhood emotional abuse. For example, some studies show that a sense of community (Greenfield & Marks, 2010b), sense of purpose in life (Hartanto et al., 2020), and the sense of control (Turiano et al., 2017) reduce the deleterious association of childhood emotional abuse with adult mental health. The current study extends this line of research by highlighting how positive reappraisals that have been understudied in the literature moderate the association between childhood emotional abuse and adult mental health. Broadly conceived, the results in the current study imply that positive reappraisals are an important resilience factor that protects individuals with histories of childhood emotional abuse later in life.

For practitioners seeking to address the impact of childhood family violence, the findings in the study have some implications. Clinically, this study shows that positive reappraisals protect against the negative psychological effects of childhood emotional abuse. Thus, the health professional should promote positive reappraisals of the past among victims of childhood emotional abuse. One productive strategy is to implement psychosocial intervention programs such as cognitive-behavioral stress management (Antoni et al., 2001) and coping effective training (Chesney et al., 2003). In those interventions, clinicians may focus on various ways in which they can effectively motivate victims of childhood emotional abuse to re-construct the stressful events as beneficial and meaningful. Moreover, given that religiosity tends to strengthen one's capacity for positive reappraisal coping (DeAngelis & Ellison, 2017), practitioners may consider facilitating a healing process where they are attentive to the religious convictions of their clients, encourage them to participate in religious activities, and lend support to them as appropriate.

Like most studies, this study has some limitations that deserve brief mention. First, given that the data were collected in 1995–1996, the findings in the current study may not be a good representation of the population nowadays. Therefore, future research may consider replicating the results with more recent samples in order to enhance the generalizability of the patterns presented in the current study. Second, the use of cross-sectional data makes it impossible to establish causal ordering among focal measures. For example, it would be plausible that individuals exhibiting worse mental health in adulthood may be more prone to recall instances of childhood emotional abuse. However, the current study relies upon theoretical perspectives that underscore the cost of childhood emotional abuse, which yields logical claims regarding this focal association: Childhood emotional abuse should be negatively associated with adult mental health. Further, the consistency with which childhood emotional abuse is associated with worse mental health in adulthood gives us confidence that childhood emotional abuse likely influences adult mental health. From this vantage point, the current study shows that this focal association varies depending on levels of positive reappraisals. Nevertheless, an investigation of these relationships over time might help tease out the underlying causal

processes. Third, childhood emotional abuse is a retrospective measure, and therefore, it can be subjective to potential recall bias. This recall bias could be more pronounced for individuals with greater negative affect and less positive affect, which in turn may confound the results in the study. Yet, previous scholarship documents that the retrospective reports in adult life of significant experiences in childhood are valid to be usable in some cases (Hardt & Rutter, 2004). Moreover, when asking respondents about their childhood experiences, the MIDUS questionnaire avoided the words such as abuse or adversity, which in turn may help reduce biases (Ferraro et al., 2016). Further, the current study adjusted for socioeconomic resources and adult self-rated health to minimize the effect of recall bias (Vuolo et al., 2014).

## Conclusion

The current study contributes to the literature on the inter-relationships among childhood emotional abuse, positive reappraisals, and mental health by analyzing how positive reappraisals moderate the relationship between childhood emotional abuse and mental health in adulthood. The current analyses find that positive reappraisals explain variability in mental well-being for adults with histories of childhood emotional abuse. Specifically, high levels of positive reappraisals buffer the deleterious association of childhood emotional abuse with negative affect. Similarly, positive reappraisals mitigate the detrimental association between childhood emotional abuse and positive affect. In sum, the current study underscores the importance of psychological resources in understanding why some individuals are negatively affected by early adversity and others are more resilient.

## Disclosure statement

The author declares that he/she has no conflict of interest.

Research involving Human Participants and/or Animals: This article does not contain any studies with human participants or animals performed by the author.

## ORCID

Jong Hyun Jung  <http://orcid.org/0000-0002-1875-296X>

## Data availability statement

The current study uses data from the 1995–1996 National Survey of Midlife Development in the United States. This dataset can be obtained in the following website: <https://www.icpsr.umich.edu/web/ICPSR/studies/2760>

## Code availability

The authors used Stata 13 for analysis and the code is available upon request.



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