Gadjah Mada Journal of Professional Psychology (GamaJPP)
Journal Homepage: https://jurnal.ugm.ac.id/gamajpp
Email : gamajpp.psikologi@ugm.ac.id
e-ISSN 2407-7801 (Online)

Gadjah Mada Journal of Professional Psychology (GamaJPP) Vol **11**, No 1 (2025), 59–69
doi:10.22146/gamajpp.97365

Forgiveness Therapy to Enhance Posttraumatic Growth in Individuals with Adverse Childhood Experiences

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(Received 21 June 2024; revised 10 February 2025; accepted 20 February 2025; published 21 March 2025)

Abstract

Adverse childhood experiences (ACEs) can lead to posttraumatic stress and disruptions in adulthood, highlighting the need for appropriate treatment. This study aimed to examine the effect of Forgiveness Therapy in improving posttraumatic growth (PTG) among young adults with ACEs history. A partially randomized experimental design with pretest, posttest 1, and posttest 2 was implemented. The study included 16 participants who were divided into two groups with eight participants, respectively. Statistical analysis using repeated measures ANOVA indicated interaction between PTG scores with group ($F(2) = 19.0$, $p < 0.01$). An independent sample t-test also revealed a significant difference of PTG score between groups, with a large effect size ($t(14,0) = 2.38$; $d = 1.19$). In conclusion, Forgiveness Therapy was found to increase PTG by facilitating emotional regulation, cognitive reframing, self-disclosure, and the therapeutic effects of group therapy.

Keywords: adverse childhood experiences; forgiveness therapy; posttraumatic growth

Childhood is one of the most important periods in the lifespan development (Santrock, 2020). During childhood, individuals learn to identify communication signals, such as behaviors and facial expressions of others (Santrock, 2020). Children require a safe and stable environment, including consistent parental support in fulfilling their basic needs and helping them learn the world (Blaustein & Kinniburgh, 2010). When children receive consistent responses from the caregivers, they develop a positive self-concept (Blaustein & Kinniburgh, 2010). Conversely, children who experience inconsistent responses from the caregiver may suffer from excessive stress or psychological pressures (Blaustein & Kinniburgh, 2010).

Stressful and catastrophic conditions in childhood can emerge as an emotional response called trauma (Friedman, 2018). Trauma or posttraumatic stress is a psychological response to extreme situations or events that cause emotional harm (Friedman, 2018). When external factors, such as certain people, situations, or events are considered a threat, the body interprets them as threat signals and increases the stress level (Brunzell et al., 2015). Childhood experiences that induce stress and trauma up to the age of 18 are classified as adverse childhood experiences (ACEs) (Lesco et al., 2018). Ho et al. (2019) studied 1,366 young adults in East Asian countries and found that 67.9% of women and 66.3% of men from experienced at least one type of ACEs. This study highlighted that a significant proportion of Asian people might be exposed to abusive family environments even though their families still function as normal (Ho et al., 2019). The dominant cultural factors contributing to ACEs in East Asian families include patriarchal structures and the common use of corporal punishment (Ho et al., 2019). Similarly, Amaranggani and Dewi (2022) found that 71.7 % of Indonesian young adults experienced more than four types of ACEs, 82.9% of participants experienced emotional abuse, and 72.3% suffered from emotional neglect.

Children with ACEs must adapt to the pressure in their environment, which increases vulnerability risks in human lifespan development (McLaughlin & Sheridan, 2016). The kinds of ACE that trigger trauma responses are experiences that chronically happen and are repeated, e.g., physical and emotional neglect (Dowd, 2017). An earlier study about ACEs was conducted by US-based nonprofit organization Kaiser Permanente, which explored how ACEs impacts physical health. The study discovered eight types of ACEs, but Murphy et al. (2014) found two additional types of ACEs. WHO categorized ACEs into 13 types, i.e., (1) emotional neglect; (2) physical neglect; (3) one of the family members or more are addicts; (4) mental disorder or suicidal tendency in at least one family member; (5) imprisonment of at least one family member; (6) death of one or both parents, or parental separation/divorce; (7) abuse experienced by family members; (8) psychological/emotional abuse; (9) physical abuse; (10) sexual abuse; (11) peer violence or bullying; (12) communal abuse; (13) collective abuse.

ACEs affect mental health in adulthood, regardless of socio-demographic characteristics (Nurius et al., 2015). Being treated harshly, insulted, belittled, and rejected by parents or caregivers could lead to various mental disorders, e.g., social phobia, bipolar disorder, and eating disorders (Nanda et al., 2015; Pignatelli et al., 2016; Watson et al., 2013). Furthermore, ACEs negatively affect brain development and neurobiological conditions, like causing cortisol hormone dysregulation (Bernard et al.,

2017; Janusek et al., 2017). People with ACEs have a tendency to exhibit risky behaviors, even earlier than those without ACEs (Brewer-Smyth, 2022; Campbell et al., 2016).

Suicidal rates have also found to be higher among individuals with ACEs history. Pournaghash-Tehrani et al. (2019) examined Iranian university students who experienced emotional abuse from their parents. Risky behaviors like tobacco consumption and alcohol-related problems are more prevalent than those who had none or low exposure to ACEs as well (Shin et al., 2018). Young adults who were exposed to ACEs likely have higher risk of chronic disease and rate their health condition poorer than others in their age group (Sonu et al., 2019).

Traumatic experiences have several negative effects and, therefore, individuals should re-construct their perception of themselves and the world to let go of the pain and see positive growth (Schaefer et al., 2018). Positive psychological change after getting through an extreme experience is defined as posttraumatic growth (PTG) (Tedeschi et al., 2017). PTG can expand individual's way of thinking, feeling, and behaving, and help them construct perspectives of life (Blevins & Tedeschi, 2022). PTG consists of five dimensions, i.e., personal strength, new possibilities, relating to others, spiritual change, and appreciation of life (Tedeschi et al., 2017).

Reflective rumination is one of the factors of PTG development, allowing people to understand traumatic experiences with more conscience (Brooks et al., 2017; García et al., 2015; Zhou et al., 2015). Intrusive rumination had a negative connection with PTG and led to a depressive state (Brooks et al., 2017). Another factor that has been linked to PTG is forgiveness (Schultz et al., 2010; N. G. Wade et al., 2007). Forgiveness has been proven to facilitate reflection that drives meaning-making and development of rational beliefs about trauma and themselves (Park et al., 2012)). It has been linked to PTG, although there has not been adequate research to explore the causality of those forgiveness and PTG (Tedeschi et al., 2017).

Forgiveness is a coping strategy to decrease stress and pain caused by the wrongdoing of others (transgressor) or specific situations (transgression) (Worthington et al., 2016). There are three forms of for forgiveness, namely self-forgiveness, dispositional forgiveness, and forgiving others (Thompson et al., 2005). Self-forgiveness is the capacity to appreciate the self after a traumatic experience (Thompson et al., 2005). It is also seen as the capacity to admit and acknowledge negative feelings, including fear, anger, and feelings of injustice (Thompson et al., 2005). Meanwhile, dispositional forgiveness is an individual process of acknowledging that that a traumatic experience is beyond their control (Thompson et al., 2005). Forgiving others is about reducing post-traumatic stress caused interpersonal relationship problems (Cerci & Colucci, 2018). People who forgive others can react positively and reduce their negative responses and behaviors, e.g., avoidance and seeking revenge (Schultz et al., 2010). Forgiving others encourages victims to show prosocial act toward transgressors (Heintzelman et al., 2014; N. J. Wade et al., 2017). The interpersonal process of forgiveness has a similar mechanism as PTG development, especially one of the PTG dimensions, relating to others (Schultz et al., 2010).

Enacting forgiveness is not as easy as it seems. There have been studies about the impact of forgiveness psychotherapy in helping people involved in relationships with high level of conflict and abuse (Worthington & Wade, 2020). Forgiveness therapy has been proven to facilitate self-forgiveness and assist clients in thinking objectively about their experiences or situations (Worthington & Wade, 2020). N. J. Wade et al. (2014) meta-analysis of forgiveness therapy concluded that the therapy has positive impacts on physical health (Waltman et al., 2009) and subjective well-being in people with depression, anxiety, and post-traumatic stress disorder (N. J. Wade et al., 2014). Several studies on Forgiveness Therapy in Indonesia have discovered its effectiveness in reducing the anxiety of victims of violence (Oktaviana, 2022) and the anger of bullying victims (Maharani, 2021).

Forgiveness therapy based on the forgiveness model stated by Enright (2001) has been studied in some research, especially in clinical cases (Worthington & Wade, 2020)). Enright's model has been proven effective for child and teen abuse victims, women in abusive marriages, and fibromyalgia patients (Freedman & Enright, 2017; Lee & Enright, 2014; Rahman et al., 2018; Reed & Enright, 2006). There has also been proves of the effectiveness of forgiveness therapy based on Enright's model using a cognitive behavioral approach (Lin et al., 2004; Louden-Gerber, 2009). In people with trauma, the cognitive-behavioral approach facilitates the modification of thoughts and behavior, reducing the emotional impacts of trauma (Friedman, 2018). Therefore, cognitive behavior therapy (CBT), or therapy based on cognitive and behavioral concepts, can help alleviate the intrusive thoughts and physiological responses caused by trauma (Friedman, 2018).

Psychotherapy based on cognitive behavior can enhance PTG. Cognitive therapy, exposure therapy, expressive writing therapy, stress management training, and a couple of interventions were effective in facilitating PTG in individuals with trauma (Roepke, 2015). Psychotherapy, especially forgiveness therapy in a group setting, has been empirically tested by 40 or more studies (N. J. Wade et al., 2014). Group-based CBT interventions have been proven to improve PTG through social support and self-disclosure (Calhoun & Tedeschi, 2013; Gregory & Prana, 2013). According to Corey (2012), group therapy offers benefits not present in individual therapy, namely social support, a sense of togetherness, and communal warmth. Group members can learn from processes in the group and assist peers in achieving their goals (Corey et al., 2014). Due to the various advantages, the CBT approach and group format were used in this study.

This research adapted the cognitive behavioral-based group forgiveness therapy module translated and modified by Daningratri (2016), Praptomojati (2016), and Zuanny (2016) for prisoners. Forgiveness Therapy enhances self-acceptance (Praptomojati, 2016), (Daningratri, 2016), meaningfulness of life (Zuanny, 2016), and subjective well-being of prisoners (Subandi et al., 2022). Researchers modified the module to suit the group of participants in this research, namely adults with ACEs. The intervention process was divided into six sessions, with each session

containing one or two sub-sessions.

In conclusion, forgiveness is an emotion-focused coping strategy that can reduce post-traumatic stress and facilitate PTG. When individuals can forgive, they rebuild their lives beyond the context of the trauma, e.g., forming new relationships, experiencing spiritual growth, or developing a deeper appreciation for life. This study hypothesized that Forgiveness Therapy enhances PTG in adults with ACEs. It differed from previous studies, which primarily examined populations limited to subjects with violence. Additionally, this study aligns with N. J. Wade et al. (2017) suggestion to expand the theoretical understanding of the causal relationship between Forgiveness Therapy and PTG (Ha et al., 2017; N. J. Wade et al., 2017).

1. Method

1.1 Participants

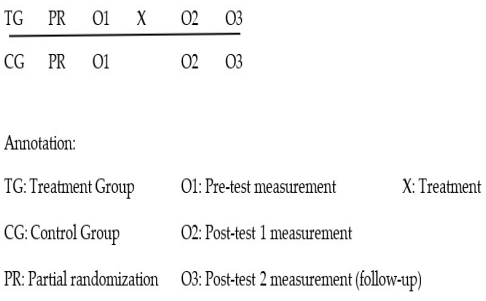
Participants were recruited using purposive sampling based on the following criteria (Taherdoost, 2016): (1) young adults aged 20 – 35 years; (2) a history of ACEs, as indicated by their WHO ACE-IQ scores; (3) medium to low forgiveness and PTG scores; (4) not currently undergoing treatment or receiving psychological assistance; and (5) no prior experience with forgiveness therapy. Recruitment was conducted through posters shared on social media and at Primary Healthcare Center (*puskesmas*).

A total of 22 candidates registered and were contacted by the principal researcher for an interview that aimed to assess participants' readiness and level of need. Following this process, 17 candidates were selected to participate and provided informed consent and assent. They were then assigned to either the treatment or control group. However, one participant did not complete the intervention due to personal reasons, leaving eight participants in the treatment group. According to (Corey, 2012), the recommended number of participants per therapy group is eight, with one therapist.

1.2 Design and Procedure

This study used the pretest-posttest control group design (Shadish et al., 2002) which included a control group (waiting list) and involved three measurement points. Participants were assigned to two groups using partial randomization or stratification to minimize confounding variables that could threaten the study's validity. Stratification was done based on ages and ACE cases to ensure both groups had balanced demographic characteristics.

Figure 1
Research Design



Therapy sessions for the treatment group were scheduled over six sessions (November – December 2023), with each session lasting 120 minutes. Before the experiment, the researcher validated the module's content with two clinical psychologists and a psychology lecturer. The functional aspects of the module were tested through a trial study, which involved four sessions in October 2023, with three participants who met criteria similar to those in the main experiment.

Measurements were taken at three points: before the therapy began (pretest), immediately after completing the six therapy sessions (posttest 1), and two weeks after the therapy ended (posttest 2). Forgiveness Therapy was delivered by clinical psychologists with experiences as CBT group therapists. The treatment process was also assisted by observers who were professional master's students in clinical psychology. The research obtained ethical approval from the Ethics Committee at the Faculty of Psychology, Universitas Gadjah Mada (11758/UN1/FPSi.1.3/SD/PT.01.04/ 2023).

1.3 Instruments

The study utilized four main instruments: (1) Forgiveness Therapy module; (2) psychological measurements; (3) Forgiveness Therapy evaluations; and (4) Forgiveness Therapy observer guidelines. The therapy module used in this study was adapted from the Forgiveness Therapy Module for Prisoners by Daningratri (2016), Praptomojati (2016), and Zuanny (2016), based on Enright (2001) forgiveness model. The therapy in this module is based on a cognitive-behavioral approach and incorporates various techniques, including: (1) sharing; (2) reframing; (3) relaxation; (4) psychoeducation; and (5) homework Praptomojati (2016).

The Forgiveness Therapy module was modified to better suit the participants in this study (see Table 1). The primary modification involved incorporating a variety of methods, such as art therapy which also used a cognitive-behavioral approach with directive instruction. The art therapy used in this study was adapted from Buchalter's (2015) Positive and Negative and Life Mandala. The Forgiveness Therapy module demonstrated strong content validity, with Aiken's V values ranging from 0.919 – 0.929 and an average V of 0.925. Additionally, three trial participants showed improvements in forgiveness (Gain Score= 23) and PTG (Gain Score = 29).

Session 1 focused on psychoeducation about ACEs, psychological trauma, and various types of emotions. Participants shared their traumatic experiences, with the goal of helping them acknowledge their emotions after the ACEs. Through this session, participants became aware that others had experienced similar situations and emotions, making them feel less lonely. In Session 2, participants identified their thoughts, behaviors, and feelings related to the ACEs. They explored the changes that followed these experiences, including negative, neutral, and positive changes.

Session 3 guided participants in assessing their coping mechanisms when dealing with ACEs and trauma. This activity encouraged them to reflect on their need to

Table 1
Forgiveness Therapy Module Blueprint for Individuals with ACEs

Session	Themes	Modifications in Module
1	Thoughts and emotions identification after traumatic experiences in childhood	Adding psychoeducation materials about childhood trauma and its impacts
2	Confronting negative thoughts and emotions	-
3	Deciding to forgive targets in specific forgiveness objects.	-
4	Exploring new perspectives	-
5	Developing positive thoughts and emotions	Changing the methods into art therapy
6	Determining new life goals and making meaning of changes after group therapy	Changing the methods into art therapy and SWOT identification.

forgive or to seek forgiveness. Participants learned that forgiveness involves recognizing emotions, acknowledging pain, and considering the possibility of forgiving. Each participant was asked to focus on a single forgiveness target either themselves, others, or the situations. Session 4 primarily involved expressive writing. Participants wrote about the specific target they had chosen to forgive. They also shared deeper thoughts and emotions related to this process. The session aimed to help participants gain different perspectives on their forgiveness targets.

Session 5 facilitated the development of positive thoughts and emotions. Art therapy in this session helped participants find positive meaning in their traumatic experiences. As a result, they developed a more positive self-view, optimism, and increased self-confidence. Some participants also gained insights into becoming better parents in the future. In Session 6, participants established life goals for the coming year. They shared goals related to interpersonal relationships, some of which were connected to forgiveness, e.g., improving communication with their parents.

This study used three main measures: (1) the WHO Adverse Childhood Experiences International Questionnaire (WHO ACE-IQ); (2) Forgiveness Scale; and (3) Post-traumatic Growth Inventory – X (PTGIX). The WHO ACE-IQ was adapted into Indonesian by Rahapsari et al. (2021) and tested on 240 participants, of which the majority were women aged 18 – 24 years. The inventory demonstrated good reliability ($\alpha = 0.742$)and strong correlation with ACEQ ($r_{ix} = 0.807$, $p < 0.01$). There are 13 categories of ACEs in the WHO ACE-IQ: (1) emotional neglect; (2) physical neglect; (3) having at least one addict in the family; (4) mental disorder or suicidal tendency in at least one family member; (5) imprisonment of at least one family member; (6) death of one or both parents or parental separation/divorce; (7) abuse experienced by family members; (8) psychological/emotional abuse; (9) physical abuse; (10) sexual abuse; (11) peer violence or bullying; (12) communal abuse; (13) collective abuse. These categories were structured into 29 items with different response options.

The Forgiveness Scale was originally developed by Rahmandani et al. (2016) based on Thompson et al. (2005)) three aspects of forgiveness. The scale was then tested by Amaranggani and Dewi (2022) with a group of young adults with ACEs and was found to be a reliable measurement tool ($\alpha = 0.935$)with good internal consistency (r_{ix} = 0.336–0.792). This study used the Forgiveness Scale adapted by Amaranggani and Dewi (2022), which includes 34 items with a four-option Likert scale.

The PTGI-X was developed by Tedeschi and Blevins (2015) and adapted into Indonesian by Rahmaningsih (2019). The scale includes five aspects of PTG (Tedeschi et al., 2017). PTGI-X consists of 25 items with a six-option Likert scale. Trials conducted on 122 adult women with traumatic experiences confirmed the PTGI-X reliability (α = 0.949)and good internal consistency (r_{ix} = 0.643–0.964) (Rahmaningsih, 2019).

1.4 Data Analysis

The statistical analysis began with assumption testing, including normality and homogeneity tests. Once assumptions were met, a repeated measures ANOVA was conducted to test the main hypothesis by comparing pretest, posttest 1, and posttest 2 within groups. Additionally, an independent sample t-test was used to compare measurement results between groups. Most statistical analyses were conducted using the Jamovi statistical software version 2.4.7.

2. Result

The total number of participants in this study was 16, with eight participants in the treatment group and eight in the control group. The average age of participants was 24, with the average age of the treatment group being one year younger than the control group. The majority of participants were women (93.8%) and employed (56.3%). The most common ACEs in both groups were: (1) experiences of emotional violence from parents; (2) family dysfunction and physical violence; and (3) observed domestic violence between parents, involving both physical and emotional violence. See Table 2

Researchers conducted a normality test using the Shapiro-Wilk approach and a homogeneity test using Levene's method to determine the appropriate statistical analyses. The results showed that the pretest data for the Forgiveness Scale and PTGI-X were normally distributed ($p > 0.05$), and both groups had equal conditions in terms of forgiveness and PTG scores ($p > 0.05$). Based on these results, repeated measures ANOVA and independent samplest-tests were used to test the research hypotheses.

Based on the repeated measures ANOVA (see Table 4 and Figure 2), a significant interaction was found within groups for forgiveness scores (F (2) = 12.9, $p < 0.01$) and PTG scores (F (2) = 19.0, $p < 0.01$). Forgiveness Therapy was proven effective in enhancing forgiveness

Table 2
Demographics and ACE Cases of Participants

Indicator	All Groups		Treatment		Control	
Age	M	SD	M	SD	M	SD
	24.38	3.008	23.5	2.449	25.25	3.412
Sex	N	%	N	%	N	%
Female	15	93.8	7	87.5	8	100
Male	1	6.3	1	12.5	0	-
Activity	N	%	N	%	N	%
Employee/ Worker	9	56.3	4	50	5	62.5
College Student	5	31.3	3	37.5	2	25
Unemployment	2	12.5	1	12.5	1	12.5
ACE cases	M	SD	M	SD	M	SD
	4.94	1.526	5.25	1.488	4.63	1.598
ACE category	N	%	N	%	N	%
Emotional neglect	9	56.3	5	62.5	4	50
Family dysfunction	11	68.8	6	75	5	62.5
Family members were abused	10	62.5	5	62.5	5	62.5
Physical abuse	11	68.8	7	87.5	4	50
Emotional abuse	15	93.8	8	100	7	87.5
Bullying	8	50	6	75	2	25

($\eta^2p = 0.481$) and PTG ($\eta^2p = 0.575$), as indicated by effect size values above 0.14 (Richardson, 2011). See Table 3

Table 3
Results of Repeated Measures ANOVA on Forgiveness Therapy Impact

Variable	Mean Square	*F*	*p*	η_p^2
Within Subject Test				
Forgiveness	411.5	12.9	<.001*	.481
PTG	1,461.3	19.0	<.001*	.575

*$p < 0.05$

Results from the Independent Samples t-test showed that the treatment group had a higher mean score than the control group. Post-test scores revealed significant differences in forgiveness (t (14.0) = 2.67, $p < 0.05$) and PTG (t (14.0) = 2.38, $p < 0.05$) between groups (see Table 5). Similar differences were found in posttest 2, with forgiveness (t (14.0) = 3.33, $p < 0.05$) and PTG (t (14.0) = 2.67, $p < 0.05$). Forgiveness Therapy had a large effect on forgiveness ($d = 1.66$) and PTG ($d = 1.33$) up to two weeks after therapy, as indicated by effect size values above 0.8 (Lakens, 2013). These findings suggest a more significant increase in forgiveness and PTG in the treatment group compared to the control group.

Score increase in the treatment group was observed across all categories of the Forgiveness Scale and PTGI-X. Based on the paired sample t-test results, all categories on both scales showed a significant increase. Within the Forgiveness Scale, the self-forgiveness category exhibited the largest change in mean score from pretest to posttest (MD = -8.88, $p < 0.01$). Meanwhile, on the PTGI-X Scale, the greatest change in mean score from pretest to posttest was found in the interpersonal relations dimension (MD = -8.50, $p < 0.01$) (see Table 5).

Researchers also examined the significance of forgiveness objects addressed in the therapy. In the third and fourth sessions, participants in the treatment group were guided to work on one of three forgiveness targets. Three participants chose self-forgiveness, three chose interpersonal forgiveness, and two chose to forgive the situation. Results from the repeated measures ANOVA showed that the increase in forgiveness scores ($F = 0.025$, $p > 0.05$) and PTG scores ($F = 1.49$, $p > 0.05$) was not influenced by the forgiveness object selected (see Table 6). Thus, improvements in forgiveness and PTG occurred regardless of how the forgiveness target was processed in therapy.

3. Discussion

This study showed that Forgiveness Therapy can enhance PTG in individuals with ACEs, as evidenced by the increase in pretest, posttest 1, and posttest 2 scores, along with the large effect sizes observed in the treatment group. In addition, the treatment group showed a significant increase in forgiveness scores compared to the control group. These findings support previous studies on Forgiveness Therapy for individuals with past trauma, particularly those employing Enright's forgiveness model (Freedman & Enright, 2017; Rahman et al., 2018; Reed & Enright, 2006).

Forgiveness therapy in this study utilized the CBT approach and Enright (2001) forgiveness model. The first step in forgiveness involves expressing and acknowledging anger, disappointment, and hurt related to ACEs (Graham et al., 2017). The process of forgiveness included modifying negative emotional responses, such as shifting the emotional valence from negative to neutral or positive and reducing the response intensity (Thompson et al., 2005)). Positive emotions arising from the forgiveness process could facilitate PTG (Mangelsdorf & Eid, 2015). Therefore, applying emotion regulation in daily life as part of the therapy tasks (daily tracking) was beneficial for par-

Figure 2
Interaction between Measurement Time with Group

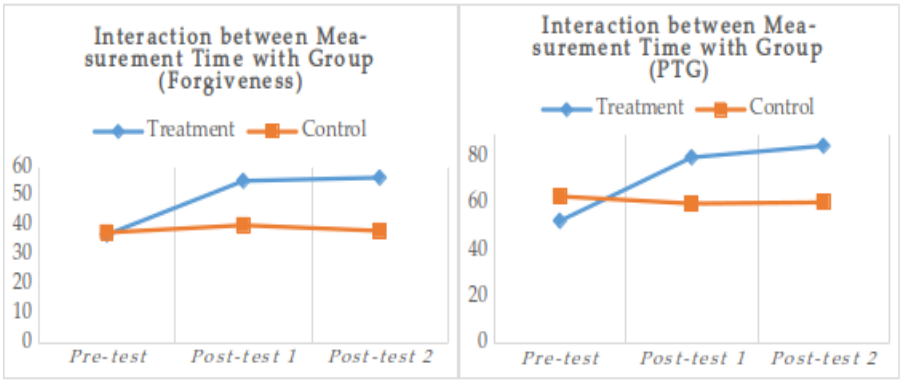


Table 4
Results of Independent Sample T-test Between Groups

	Mean Difference		*t*		*p*		Cohen's *d*	
Posttest	1	2	1	2	1	2	1	2
Variable								
Forgiveness	15.3	18.3	2.67	3.33	.018*	.005*	1.33	1.66
PTG	20.0	24.5	2.38	2.67	.032*	.018*	1.19	1.33

*$p < 0.05$

Table 5
Pretest and Posttest Score Comparisons for Each Category in the Forgiveness Scale and PTGI-X

Variable	Mean Difference *	*t**	*p*	Cohen's *d**
Treatment group				
Forgiveness Object				
Self	-8.88	-5.81	<.001	-2.053
Others	-3.25	-3.15	.008	-1.115
Situation	-6.25	-2.51	.020	-.887
PTG Dimensions				
Life appreciation	-3.38	-2.66	.016	-.942
Personal strength	-3.38	-2.14	.035	-.755
New opportunities	-6.13	-5.03	<.001	-1.780
Interpersonal relationship	-8.50	-3.77	.003	-1.334
Spirituality	-6.13	-4.24	.002	-1.499

* Posttest scores were higher than the first measurement

Table 6
Results of Repeated Measures ANOVA on the Effect of Forgiveness Object

Variable	Mean Square	*F*	*p*
Between Subject Test			
Forgiveness	70.4	0.205	0.821
PTG	935	1.49	0.311

ticipants. They learned to regulate emotional responses, which indirectly reduced intrusive rumination (Tedeschi & Blevins, 2015).

The primary emotion regulation method used in this therapy was the relaxation technique. Relaxation techniques in Forgiveness Therapy helped participants feel relaxed and calm (Rismarini & Hasanat, 2022). Improving awareness of presence, with the help of relaxation techniques, allows individuals to observe situations objectively and reduce the habit of avoiding triggers (Garland et al., 2011). Additionally, relaxation techniques with the intention of forgiveness could increase positive emotions (Primasari & Yuniarti, 2021).

The process of forgiving and developing PTG was also facilitated through self-disclosure (Tedeschi et al., 2017; Worthington & Wade, 2020). The self-disclosure techniques help uncover hidden feelings and thoughts, encouraging individuals to gain new insights about themselves or their problems (Erford, 2020). Furthermore, self-disclosure allows individuals to alleviate emotional burdens related to traumatic experiences, promote cognitive processing, and facilitate meaning-making (Tedeschi et al., 2017). In this therapy, self-disclosure was carried out through various mediums, including sharing, writing, or artistic expression (Erford, 2020).

Writing exercises in Forgiveness Therapy employ a cognitive or constructivist approach to help participants gain new insights and broaden their perspective through reframing (Kerner & Fitzpatrick, 2007). The reframing technique is used to facilitate the reflection process in phase three of the forgiveness model (Enright, 2001; Worthington & Wade, 2020). This technique helped expand participants' perspectives, thereby reducing negative thoughts about "why" the traumatic experience occurred and its negative impacts (Orvell et al., 2017). Moreover, reframing technique is a key factor in facilitating PTG (Park et al., 2012).

After reframing, participants engaged in the art therapy to create meaning from their experiences. This meaning-making process is facilitated through art therapy, a modification of Forgiveness Therapy introduced in previous research (Maharani, 2021; Praptomojati, 2016). Art therapy helps participants assign meaning to traumatic experiences that were often difficult to express in words (Schouten et al., 2018). Hidden thoughts and emotions are represented through colors and symbols (Rubin, 2010). This form of therapy facilitates positive meaning-making and reinterpretation, thereby promoting PTG (N. J. Wade et al., 2017; Zoellner & Maercker, 2006). In this Forgiveness Therapy, seven out of eight participants successfully found positive meanings in their trauma, and some even derived similar meanings. Participants viewed themselves more positively, as indicated by increased self-confidence and optimism through art therapy.

The therapeutic effects observed in the treatment group included universality and cohesiveness (Yalom & Leszcz, 2015). Awareness that others have experienced similar traumatic experiences helps participants feel less isolated and less preoccupied with trying to reason their traumatic experiences (Miller et al., 2015). Participants also develop a sense of togetherness and trust, which supports the catharsis process and helps them release emotional burdens within the group (Yalom & Leszcz, 2015). Additionally, the group process enables participants to learn from others' perspectives, enhancing self-understanding for example, by discovering aspects of themselves they have never previously realized (Yalom & Leszcz, 2015).

Traditional values also influenced the forgiveness mechanisms of the participants in this study. Although the participants were no longer exposed to ACEs, they still maintained relationships with individuals involved in those experiences, particularly their parents. Forgiving one's parents often involves dilemmas due to the inherent power imbalance in parent-child relationships, even in young adulthood (Worthington & Wade, 2020). In this study, participants felt guilty when they perceived parents as "bad people" responsible for their trauma. The strong hierarchy in Indonesian parent-child relationships means that children are expected to be filial, always obeying their parents (Riany et al., 2016). Additionally, religious teachings emphasize obedience to parents, while disobedience is considered a sin (Riany et al., 2016)). As a result, participants in this study assumed that their parents' acts of violence or neglect occurred because they had done something wrong in their childhood. These self-blaming tendencies are common in individuals with trauma (Tanzer et al., 2020).

Self-forgiveness plays a crucial role in helping individuals let go of anger toward themselves for feeling at fault or responsible for their trauma (Tangney et al., 2005). It is also associated with a reduced risk of self-destructive behavior and an increase in self-compassion (Tangney et al., 2005). For individuals with interpersonal trauma, self-forgiveness is more beneficial than interpersonal forgiveness (Worthington & Wade, 2020). This was reflected in higher increases in self-forgiveness scores compared to other categories, despite participants focusing on a single forgiveness target. Additionally, significant improvements were observed across all three forgiveness targets (self, others, and situations), suggesting that these constructs are interconnected (Thompson et al., 2005).

Participants in this study also attempted interpersonal forgiveness by establishing appropriate boundaries with their parents to protect themselves from potential transgressions (N. G. Wade et al., 2007). For example, in Session 6, participants were guided to set life goals while practicing communication strategies with their parents. Additionally, participants worked on forgiving ACE-related situations as a way to develop empowerment, reduce self-blame, and facilitate PTG (Maschi et al., 2021).

Some participants who did not wish to reconcile with their parents focused on strengthening their social support systems and building deeper connections with others N. J. Wade et al. (2017). Efforts to develop quality

interpersonal relationships align with the interpersonal relationship dimension of PTG (Tedeschi et al., 2017). Moreover, participants expressed a desire to learn proper parenting skills as preparation for their future families. This aligns with the new possibilities dimension of PTG, which involves optimism about the future and recognizing new opportunities (Schaefer et al., 2018; Tedeschi et al., 2017).

3.1 Evaluation of Forgiveness Therapy

Forgiveness Therapy was evaluated by eight participants and analyzed using the intraclass correlation coefficient (ICC). The statistical analysis indicated that Forgiveness Therapy was successfully implemented in the treatment group, with a high reliability score ($rix = 0.93$) (Koo & Li, 2016). The success of the therapy was partly attributed to the strong rapport between participants and group cohesiveness. Observations showed that participants were comfortable and practiced open communication with peers. In Session 4, most participants felt emotionally overwhelmed due to the expressive writing activity, but they still provided support and feedback to one another. Conversely, Sessions 5 and 6 had a warmer, more relaxed atmosphere, with participants expressing more positive thoughts and emotions. Participants also developed new perspectives on themselves and their traumatic experiences through self-reflection and group sharing. By the end of therapy, participants intended to keep in contact with one another, expanding relationships beyond the therapy sessions.

Throughout the process, participants progressed at different rates. Some successfully met session goals, while others faced challenges for instance, one participant struggled to assign positive meaning to traumatic experiences in Session 5. Nevertheless, all participants interpreted their progress positively. They reported feeling more capable of facing trauma-related triggers and responding constructively. This was evident in their consistent practice of relaxation techniques (three to four times per week), which helped them regulate emotions and maintain calmness.

The therapist also provided feedback regarding session duration. Therapy sessions regularly started 15–30 minutes late due to participants commuting home from work and most of them lived far from the therapy location. Furthermore, each session consistently exceeded the planned duration. Several factors contributed to this, including the heavy emotional burden associated with recounting childhood-to-adulthood trauma and the expressive and communicative nature of young adults, which led to extended discussions (Santrock, 2020).

4. Conclusion

This research demonstrated that Forgiveness Therapy is effective in increasing forgiveness and posttraumatic growth (PTG) among young adults with adverse childhood experiences (ACEs). Forgiveness Therapy also found to enhance forgiveness across all three forgiveness objects, with the greatest impact on self-forgiveness. PTG improved across all dimensions, particularly in interpersonal relationships and the ability to see new possibilities in life. The group format provided therapeutic effects that individual therapy could not offer, e.g., a sense of togetherness and a deeper understanding of oneself. This format was considered well-suited to young adults, who have a strong need for social belonging.

4.1 Recommendation

Future research should analyze the effectiveness of Forgiveness Therapy based on demographic factors, such as age and gender, as well as different categories of ACEs. Additionally, incorporating physiological aspects of forgiveness could provide further insights into the correlation between forgiveness and physical responses.

5. Declaration

5.1 Acknowledgement

The researchers would like to thank all parties who were involved in this research.

5.2 Funding

This research was funded by Lembaga Pengelola Dana Pendidikan (LPDP) as part of the master's degree scholarship with number 0003406/SOS/M/3/lpdp2019

5.3 Author's Contribution

The first author was responsible for conducting the research, as well as writing the article. The second author provided guidance throughout the research process and offered input in article's writing.

5.4 Conflict of interest

Authors declare that there is no conflict of interest in the research and article writing.

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References

Amaranggani, A. P., & Dewi, K. (2022). The role of forgiveness in post-traumatic growth: A cross-sectional study of emerging adults with adverse childhood experiences. *Proceedings of 3 rd International Conference on Psychological Studies (ICPsyche) 2022*, *1*(6), 1–12. https://proceeding.internationaljournallabs.com/index.php/picis/index

Bernard, K., Frost, A., Bennett, C. B., & Lindhiem, O. (2017). Maltreatment and diurnal cortisol regulation: A meta-analysis. *Psychoneuroendocrinology*, *78*, 57–67. https://doi.org/10.1016/j.psyneuen.2017.01.005

Blaustein, M. E., & Kinniburgh, K. M. (2010). *Treating traumatic stress in children and adolescents: How to foster resilience through attachment, self-regulation, and competency*. The Guilford Press.

Blevins, C. L., & Tedeschi, R. G. (2022). Posttraumatic growth & wisdom: Processes and clinical applications. In *Post-traumatic growth to psychological well-being* (pp. 11–26). Springer International Publishing. https://doi.org/10.1007/978-3-031-15290-0_2

Brewer-Smyth, K. (2022). *Adverse childhood experiences: The neuroscience of trauma, resilience and healing throughout the life course*. Springer International Publishing. https://doi.org/10.1007/978-3-031-08801-8

Brooks, M., Graham-Kevan, N., Lowe, M., & Robinson, S. (2017). Rumination, event centrality, and perceived control as predictors of post-traumatic growth and distress: The Cognitive Growth and Stress model. *British Journal of Clinical Psychology*, *56*(3), 286–302. https://doi.org/10.1111/bjc.12138

Brunzell, T., Stokes, H., & Waters, L. (2015). Trauma-informed positive education: Using positive psychology to strengthen vulnerable students. *Contemporary School Psychology*, *20*(1), 63–83. https://doi.org/10.1007/s40688-015-0070-x

Calhoun, L. G., & Tedeschi, R. G. (2013). *Posttraumatic growth in clinical practice*. Routledge, Taylor & Francis Group.

Campbell, J. A., Walker, R. J., & Egede, L. E. (2016). Associations between adverse childhood experiences, high-risk behaviors, and morbidity in adulthood. *American Journal of Preventive Medicine*, *50*(3), 344–352. https://doi.org/10.1016/j.amepre.2015.07.022

Cerci, D., & Colucci, E. (2018). Forgiveness in PTSD after man-made traumatic events: A systematic review. *Traumatology*, *24*(1), 47–54. https://doi.org/10.1037/trm0000130

Corey, G. (2012). *Theory and practice of group counseling*. Cengage Learning, Inc. http://www.nber.org/papers/w16019

Corey, G., Marianne, S. C., Callanan, P., & Russell, J. M. (2014). *Group techniques*. Cengage Learning.

Daningratri, D. (2016). *Terapi pemaafan untuk meningkatkan optimisme warga binaan pemasyarakatan [forgiveness therapy to increase optimism in correctional inmates]* (Magister thesis). Fakultas Psikologi, Universitas Gadjah Mada.

Dowd, M. D. (2017). Early adversity, toxic stress, and resilience: Pediatrics for today. *Pediatric Annals*, *46*(7). https://doi.org/10.3928/19382359-20170615-01

Enright, R. D. (2001). *Forgiveness is a choice: A step-by-step process for resolving anger and restoring hope*. American Psychological Association.

Erford, B. T. (2020). *45 Techniques every counselor should know (3Th Ed.)* Pearson.

Freedman, S., & Enright, R. D. (2017). The use of forgiveness therapy with female survivors of abuse. *Journal of Womens Health Care*, *06*(03). https://doi.org/10.4172/2167-0420.1000369

Friedman, M. J. (2018). Posttraumatic and acute stress disorders. https://doi.org/10.4135/9781483392271.n398

García, F. E., Cova, F., Rincón, P., & Vázquez, C. (2015). Trauma or growth after a natural disaster? the mediating role of rumination processes. *European Journal of Psychotraumatology*, *6*(1). https://doi.org/10.3402/ejpt.v6.26557

Garland, E. L., Gaylord, S. A., & Fredrickson, B. L. (2011). Positive reappraisal mediates the stress-reductive effects of mmindfulness: An upward sspiral process. *Mindfulness*, *2*(1), 59–67. https://doi.org/10.1007/s12671-011-0043-8

Graham, K. L., Morse, J. L., O'Donnell, M. B., & Steger, M. F. (2017). Repairing meaning, resolving rumination, and moving toward self-forgiveness. In *Handbook of the psychology of self-forgiveness* (pp. 59–72). Springer International Publishing. https://doi.org/10.1007/978-3-319-60573-9_5

Gregory, J. L., & Prana, H. (2013). Posttraumatic growth in Côte d'Ivoire refugees using the Companion Recovery model. *Traumatology*, *19*(3), 223–232. https://doi.org/10.1177/1534765612471146

Ha, N., Bae, S.-M., & Hyun, M.-H. (2017). The effect of forgiveness writing therapy on post-traumatic growth in survivors of sexual abuse. *Sexual and Relationship Therapy*, *34*(1), 10–22. https://doi.org/10.1080/14681994.2017.1327712

Heintzelman, A., Murdock, N. L., Krycak, R. C., & Seay, L. (2014). Recovery from infidelity: Differentiation of self, trauma, forgiveness, and posttraumatic growth among couples in continuing relationships. *Couple and Family Psychology: Research and Practice*, *3*(1), 13–29. https://doi.org/10.1037/cfp0000016

Ho, G. W. K., Bressington, D., Karatzias, T., Chien, W. T., Inoue, S., Yang, P. J., Chan, A. C. Y., & Hyland, P. (2019). Patterns of exposure to adverse childhood experiences and their associations with mental health: a survey of 1346 university students in East Asia. *Social Psychiatry and Psychiatric Epidemiology*, *55*(3), 339–349. https://doi.org/10.1007/s00127-019-01768-w

Janusek, L. W., Tell, D., Gaylord-Harden, N., & Mathews, H. L. (2017). Relationship of childhood adversity and neighborhood violence to a proinflammatory phenotype in emerging adult African American men: An epigenetic link. *Brain, Behavior, and Immunity*, *60*, 126–135. https://doi.org/10.1016/j.bbi.2016.10.006

Kerner, E. A., & Fitzpatrick, M. R. (2007). Integrating writing into psychotherapy practice: A matrix of change processes and structural dimensions. *Psychotherapy: Theory, Research, Practice, Training*, *44*(3), 333–346. https://doi.org/10.1037/0033-3204.44.3.333

Koo, T. K., & Li, M. Y. (2016). A guideline of selecting and reporting intraclass ccorrelation coefficients for reliability research. *Journal of Chiropractic Medicine*, *15*(2), 155–163. https://doi.org/10.1016/j.jcm.2016.02.012

Lakens, D. (2013). Calculating and reporting effect sizes to facilitate cumulative science: a practical primer for t-tests and ANOVAs. *Frontiers in Psychology*, *4*. https://doi.org/10.3389/fpsyg.2013.00863

Lee, Y.-R., & Enright, R. D. (2014). A forgiveness intervention for women with fibromyalgia who were abused in childhood: A pilot study. *Spirituality in Clinical Practice*, *1*(3), 203–217. https://doi.org/10.1037/scp0000025

Leşco, G., Baban, A., Sethi, D., Boderscova, L., Chihai, J., & Luchian, A. (2018). Adverse childhood experiences and health-risk behaviours in university students from the Republic of Moldova. https://iris.who.int/handle/10665/346093

Lin, W.-F., Mack, D., Enright, R. D., Krahn, D., & Baskin, T. W. (2004). Effects of forgiveness therapy on anger, mood, and vulnerability to substance use among inpatient substance-dependent clients. *Journal of Consulting and Clinical Psychology*, *72*(6), 1114–1121. https://doi.org/10.1037/0022-006x.72.6.1114

Louden-Gerber, G. M. (2009). A group forgiveness intervention for adult male homeless individuals: Effects on forgiveness, rumination, and social connectedness. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *69*(12-A), 4640. https://psycnet.apa.org/record/2009-99110-278

Maharani, M. (2021). *Menurunkan kemarahan pada remaja korban perundungan: Validasi modul terapi pemaafan daring berbasis CBT [Reducing anger in adolescent victims of bullying: Validation of a CBT-based online forgiveness therapy module]* (Magister thesis). Fakultas Psikologi, Universitas Gadjah Mada. https://etd.repository.ugm.ac.id/penelitian/detail/206732

Mangelsdorf, J., & Eid, M. (2015). What makes a thriver? Unifying the concepts of posttraumatic and postecstatic growth. *Frontiers in Psychology*, *6*. https://doi.org/10.3389/fpsyg.2015.00813

Maschi, T., Turner, S., & Kaye, A. (2021). Empowerment theory. In *Theoretical perspectives for direct social work practice*. Springer Publishing Company. https://doi.org/10.1891/9780826165565.0016

McLaughlin, K. A., & Sheridan, M. A. (2016). Beyond cumulative risk: A dimensional approach to childhood adversity. *Current Directions in Psychological Science*, *25*(4), 239–245. https://doi.org/10.1177/0963721416655883

Miller, J. V., Rude, S. S., & Haner, M. (2015). Experimental modification of appraisal style: Benefits of seeing the big picture. *Journal of Experimental Psychopathology*, *6*(1), 100–111. https://doi.org/10.5127/jep.041914

Murphy, A., Steele, M., Dube, S. R., Bate, J., Bonuck, K., Meissner, P., Goldman, H., & Steele, H. (2014). Adverse Childhood Experiences (ACEs) questionnaire and Adult Attachment Interview (AAI): Implications for parent child relationships. *Child Abuse & Neglect*, *38*(2), 224–233. https://doi.org/10.1016/j.chiabu.2013.09.004

Nanda, M. M., Reichert, E., Jones, U. J., & Flannery-Schroeder, E. (2015). Childhood maltreatment and symptoms of social anxiety: Exploring the role of emotional abuse, neglect, and cumulative trauma. *Journal of Child & Adolescent Trauma*, *9*(3), 201–207. https://doi.org/10.1007/s40653-015-0070-z

Nurius, P. S., Green, S., Logan-Greene, P., & Borja, S. (2015). Life course pathways of adverse childhood experiences toward adult psychological well-being: A stress process analysis. *Child Abuse & Neglect*, *45*, 143–153. https://doi.org/10.1016/j.chiabu.2015.03.008

Oktaviana, S. K. (2022). Terapi pemaafan untuk menurunkan tingkat kecemasan remaja korban kekerasan. *Jurnal Psikologi Islam dan Budaya*, *5*(1), 59–70. https://doi.org/10.15575/jpib.v5i1.15523

Orvell, A., Kross, E., & Gelman, S. A. (2017). How "you" makes meaning. *Science*, *355*(6331), 1299–1302. https://doi.org/10.1126/science.aaj2014

Park, C. L., Mills, M. A., & Edmondson, D. (2012). PTSD as meaning violation: Testing a cognitive worldview perspective. *Psychological Trauma: Theory, Research, Practice, and Policy*, *4*(1), 66–73. https://doi.org/10.1037/a0018792

Pignatelli, A. M., Wampers, M., Loriedo, C., Biondi, M., & Vanderlinden, J. (2016). Childhood neglect in eating disorders: A systematic review and meta-analysis. *Journal of Trauma & Dissociation*, *18*(1), 100–115. https://doi.org/10.1080/15299732.2016.1198951

Pournaghash-Tehrani, S. S., Zamanian, H., & Amini-Tehrani, M. (2019). The impact of relational adverse childhood experiences on suicide outcomes during early and young adulthood. *Journal of Interpersonal Violence*, *36*(17–18), 8627–8651. https://doi.org/10.1177/0886260519852160

Praptomojati, A. (2016). *Pengaruh terapi pemaafan terhadap penerimaan diri warga binaan permasyarakatan [the effect of forgiveness therapy on self-acceptance of correctional inmates]* (Magister thesis). Fakultas Psikologi, Universitas Gadjah Mada.

Primasari, A., & Yuniarti, K. W. (2021). Enjoying every moment: Improving adolescent's subjective well-being through adolescent mindfulness program. *Gadjah Mada Journal of Professional Psychology (GamaJPP)*, *7*(2), 115. https://doi.org/10.22146/gamajpp.65594

Rahapsari, S., Puri, V. G. S., & Putri, A. K. (2021). An Indonesian adaptation of the World Health Organization Adverse Childhood Experiences International Questionnaire (WHO ACE-IQ) as a screening instrument for adults. *Gadjah Mada Journal of Psychology (GamaJoP)*, *7*, 115–130. https://doi.org/10.22146/gamajop.64996

Rahman, A., Iftikhar, R., Kim, J. J., & Enright, R. D. (2018). Pilot study: Evaluating the effectiveness of forgiveness therapy with abused early adolescent females in Pakistan. *Spirituality in Clinical Practice*, *5*(2), 75–87. https://doi.org/10.1037/scp0000160

Rahmandani, A., Kahija, Y. F. L., & Salma. (2016). *Forgiveness meditation untuk meningkatkan self-forgiveness, forgiveness of others, dan forgiveness of situations pada mahasiswa [Forgiveness meditation to increase self-forgiveness, forgiveness of others, and forgiveness of situations in students]*, Lembaga Penelitian dan Pengabdian Masyarakat Universitas Diponegoro.

Rahmaningsih, N. D. (2019). *Meningkatkan posttraumatic growth pada korban Kekerasan dalam rumah tangga melalui brief emphatic love therapy [Improving posttraumatic growth in victims of domestic violence through brief empathic love therapy]* (Magister thesis). Fakultas Psikologi, Universitas Gadjah Mada.

Reed, G. L., & Enright, R. D. (2006). The effects of forgiveness therapy on depression, anxiety, and posttraumatic stress for women after spousal emotional abuse. *Journal of Consulting and Clinical Psychology*, *74*(5), 920–929. https://doi.org/10.1037/0022-006x.74.5.920

Riany, Y. E., Meredith, P., & Cuskelly, M. (2016). Understanding the influence of traditional cultural values on Indonesian parenting. *Marriage & Family Review*, *53*(3), 207–226. https://doi.org/10.1080/01494929.2016.1157561

Richardson, J. T. (2011). Eta squared and partial eta squared as measures of effect size in educational research. *Educational Research Review*, *6*(2), 135–147. https://doi.org/10.1016/j.edurev.2010.12.001

Rismarini, N. A., & Hasanat, N. U. (2022). Forgiveness therapy to increase psychological well-being of family caregivers of patients with schizophrenia. *Psychological Research and Intervention*, *5*(2), 63–79. https://doi.org/10.21831/pri.v5i2.60550

Roepke, A. M. (2015). Psychosocial interventions and posttraumatic growth: A meta-analysis. *Journal of Consulting and Clinical Psychology*, *83*(1), 129–142. https://doi.org/10.1037/a0036872

Rubin, J. A. (2010). *Introduction to art therapy*. Routledge, Taylor & Francis Group.

Santrock, J. W. (2020). *A topical approach to life-span developement* (10th ed.). McGraw-Hill Education.

Schaefer, L. M., Howell, K. H., Schwartz, L. E., Bottomley, J. S., & Crossnine, C. B. (2018). A concurrent examination of protective factors associated with resilience and posttraumatic growth following childhood victimization. *Child Abuse & Neglect*, *85*, 17–27. https://doi.org/10.1016/j.chiabu.2018.08.019

Schouten, K. A., van Hooren, S., Knipscheer, J. W., Kleber, R. J., & Hutschemaekers, G. J. (2018). Trauma-focused art therapy in the treatment of posttraumatic stress disorder: A pilot study. *Journal of Trauma & Dissociation*, *20*(1), 114–130. https://doi.org/10.1080/15299732.2018.1502712

Schultz, J. M., Tallman, B. A., & Altmaier, E. M. (2010). Pathways to posttraumatic growth: The contributions of forgiveness and importance of religion and spirituality. *Psychology of Religion and Spirituality*, *2*(2), 104–114. https://doi.org/10.1037/a0018454

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). In *Experimental and quasi-experimental design for causual inference*. Cengage Learning.

Shin, S. H., McDonald, S. E., & Conley, D. (2018). Patterns of adverse childhood experiences and substance use among young adults: A latent class analysis. *Addictive Behaviors*, *78*, 187–192. https://doi.org/10.1016/j.addbeh.2017.11.020

Sonu, S., Post, S., & Feinglass, J. (2019). Adverse childhood experiences and the onset of chronic disease in young adulthood. *Preventive Medicine*, *123*, 163–170. https://doi.org/10.1016/j.ypmed.2019.03.032

Subandi, Praptomojati, A., Zuanny, I. P., & Daningratri, D. (2022). Peningkatan kesejahteraan psikologis narapidana wanita melalui terapi pemaafan [Improving the psychological well-being of female prisoners through forgiveness therapy]. *Gadjah Mada Journal of Professional Psychology (GamaJPP)*, *8*(1), 46–65. https://doi.org/10.22146/gamajpp.74069

Taherdoost, H. (2016). Sampling methods in research methodology; How to choose a sampling technique for research. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3205035

Tangney, J. P., Boone, A. L., & Dearing, R. (2005). Forgiving the self: Conceptual issues and empirical findings. In *Handbook of forgiveness*. Routledge.

Tanzer, M., Salaminios, G., Morosan, L., Campbell, C., & Debbané, M. (2020). Self-blame mediates the link between childhood neglect experiences and internalizing symptoms in low-risk adolescents. *Journal of Child & Adolescent Trauma*, *14*(1), 73–83. https://doi.org/10.1007/s40653-020-00307-z

Tedeschi, R. G., & Blevins, C. L. (2015). From mindfulness to meaning: Implications for the theory of posttraumatic growth. *Psychological Inquiry*, *26*(4), 373–376. https://doi.org/10.1080/1047840x.2015.1075354

Tedeschi, R. G., Cann, A., Taku, K., Senol-Durak, E., & Calhoun, L. G. (2017). The posttraumatic growth inventory: A revision integrating existential and spiritual change. *Journal of Traumatic Stress*, *30*(1), 11–18. https://doi.org/10.1002/jts.22155

Thompson, L. Y., Snyder, C. R., Hoffman, L., Michael, S. T., Rasmussen, H. N., Billings, L. S., Heinze, L., Neufeld, J. E., Shorey, H. S., Roberts, J. C., & Roberts, D. E. (2005). Dispositional forgiveness of self, others, and situations. *Journal of Personality*, *73*(2), 313–360. https://doi.org/10.1111/j.1467-6494.2005.00311.x

Wade, N. J., Hoyt, W. T., Kidwell, J. E. M., & Worthington, E. L. (2014). Efficacy of psychotherapeutic interventions to promote forgiveness: A meta-analysis. *Journal of Consulting and Clinical Psychology*, *82*(1), 154–170. https://doi.org/10.1037/a0035268

Wade, N. J., Schultz, J., & Schenkenfelder, M. (2017). Forgiveness therapy in the reconstruction of meaning following interpersonal trauma. In *Reconstructing meaning after trauma* (pp. 69–81). Elsevier. https://doi.org/10.1016/b978-0-12-803015-8.00005-x

Wade, N. G., Worthington, E. L., & Meyer, J. E. (2007). But do they work? A meta-analysis of group interventions to promote forgiveness. In *Handbook of forgiveness*. Routledge.

Waltman, M. A., Russell, D. C., Coyle, C. T., Enright, R. D., Holter, A. C., & M. Swoboda, C. (2009). The effects of a forgiveness intervention on patients with coronary artery disease. *Psychology & Health*, *24*(1), 11–27. https://doi.org/10.1080/08870440801975127

Watson, S., Gallagher, P., Dougall, D., Porter, R., Moncrieff, J., Ferrier, I. N., & Young, A. H. (2013). Childhood trauma in bipolar disorder. *Australian & New Zealand Journal of Psychiatry*, *48*(6), 564–570. https://doi.org/10.1177/0004867413516681

Worthington, E. L., Griffin, B. J., Lavelock, C. R., Hughes, C. M., Greer, C. L., Sandage, S. J., & Rye, M. S. (2016). Interventions to promote forgiveness are exemplars of positive clinical psychology. https://doi.org/10.1002/9781118468197.ch24

Worthington, E. L., & Wade, N. J. (2020). *Handbook of forgiveness* (2nd ed.). Routledge, Taylor & Francis Group.

Yalom, I. D., & Leszcz, M. (2015). *The theory and practice of group psychotherapy* (5th ed.). Basic Books.

Zhou, X., Wu, X., Fu, F., & An, Y. (2015). Core belief challenge and rumination as predictors of PTSD and PTG among adolescent survivors of the Wenchuan earthquake. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(4), 391–397. https://doi.org/10.1037/tra0000031

Zoellner, T., & Maercker, A. (2006). Posttraumatic growth in clinical psychology — A critical review and introduction of a two component model. *Clinical Psychology Review*, *26*(5), 626–653. https://doi.org/10.1016/j.cpr.2006.01.008

Zuanny, I. P. (2016). *Terapi pemaafan untuk meningkatkan kebermaknaan hidup warga binaan pemasyarakatan di lembaga pemasyarakatan [forgiveness therapy to increase the meaningfulness of life for inmates in correctional institutions]* (Magister thesis). Fakultas Psikologi, Universitas Gadjah Mada.