

Psychological Interventions to Achieve Post-Traumatic Growth (PTG) after the Covid-19 Pandemic: a Systematic Literature Study

Rabiatul Adawia. M

Faculty of Psychology, Ahmad Dahlan University
dawiarabiatul@gmail.com

Elli Nur Hayati

Faculty of Psychology, Ahmad Dahlan University
Elli.hayati@psy.uad.ac.id

Siti Urbayatun

Faculty of Psychology, Ahmad Dahlan University
siti.urbayatun@psy.uad.ac.id
(corresponding author)

Abstract

This article examines effective psychological interventions to enhance post traumatic growth (PTG) during the COVID-19 pandemic. Pandemic situation, causing extensive impacts, affects various aspects, including mental health. If not addressed properly, it can result in prolonged consequences such as heightened stress, increased anxiety, depression, and Post Traumatic Stress Disorder (PTSD). Article screening criteria were formulated using the Populations, Interventions, Comparison, Outcomes, and Time (PICOT) framework. Search strategy executed through several database as well as grey literature platform. For the data extraction and analysis, Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) guidelines was employed. In total, 254 articles were collected from various databases, and after the screening process, eight articles that met the analysis criteria remained. The analysis reveals that most studies were conducted in high income countries. The identified effective interventions for enhancing Post traumatic growth in the context of the Covid-19 pandemic include mindfulness-based cognitive therapy (MBCT), photography intervention, expressive writing, character strength-based intervention, group counseling, psychological intervention (professionals in emotional crisis: covid-19), online self-distancing intervention: to promote emotional regulation and post traumatic growth, compassion & growth workshop, and psychological consultations. Limitations and implication of the study were discussed.

Keywords: Covid-19, interventions, post-traumatic growth, PRISMA.

Introduction

Corona Virus Disease, or what we know as COVID-19, was first discovered in Wuhan, China, in 2019 and quickly spread to almost all countries in the world. The rapid spread of COVID-19 in almost all parts of the world made the *World Health Organization* (WHO) declare COVID-19 a global pandemic on March 11, 2020, Sabayang R (2020). In Indonesia itself, the high mortality rate and the vast impact of Covid-19 prompted the government to declare COVID-19, which is a non-natural disaster, as a national disaster based on Presidential Decree (Keppres) of the Republic of Indonesia Number 12 of 2020 concerning the Determination of the Non- Natural Disaster of the Spread of *Corona Virus Disease* 2019 (Covid19) as a National Disaster which took effect on April 12, 2020 (BNPB, 2020).

According to the website of the Ministry of Health of the Republic of Indonesia (2023), as of July 5, 2023, there have been 6.8 million confirmed cases with a mortality rate of 2.4% and a cure rate of 97.5%. Although the wave of the COVID-19 pandemic has passed and the status of COVID-19 as a *public health emergency of international concern* has been revoked by the World Health Organization (WHO), it is not impossible that the impact of the COVID-19 pandemic, especially those related to the psychological condition and mental health of individuals, is still being felt today. Ilpaj & Nurwati (2020) mentioned that in addition to the symptoms of physical illness, the high mortality rate due to COVID-19 also has a major effect on the mental health of the Indonesian people. Pratiwi & Sukarta (2020) mentioned that negative news related to COVID-19 causes panic and anxiety for individuals who witness it.

The massive impact caused by the COVID-19 pandemic makes this event categorized as a traumatic event. Horesh & Brown (2020) suggest that the COVID-19 pandemic is an example of a traumatic event that is collective in nature and causes extensive psychological impacts for many people. Emotional disturbance and irritability, insomnia, depression and post-traumatic stress were suffered massively due to lock down policy (Brooks, Webster, Smith, Woodland, Wessely, Greenberg, Rubin, 2020),

Vazquez et al. (2021) mentioned that one of the mental health problems that is relevant to the COVID-19 pandemic is *post-traumatic stress disorder* (PTSD). PTSD indicates to a mental state of a person after “*experiencing repeated or extreme exposure to aversive details of the traumatic event(s)*” (Carmassi, Foghi, Dell'Oste, Cordone, Bertelloni, Bui., & Dell'Oso, 2020). According to Tedeschi & Moore (2016), each individual has different way of dealing with traumatic events in his life, including those who are able to reach a higher state of mentality after experiencing PTSD. Nihayah et al. (2023) mentioned that the COVID-19 pandemic can be a catalyst for individuals to see the full experience of suffering during the COVID-19 pandemic as an opportunity to get closer, be patient, and surrender more to God. This mental condition is also *known as post-traumatic growth* (PTG), which Tedeschi & Moore (2016) mentioned *post-traumatic growth* occurs after individual efforts to adapt and overcome the psychological *distress* presented by traumatic events. In addition, Tedeschi et al. (2018) mentioned that PTG describes the positive changes experienced by individuals after experiencing a traumatic event.

According to Tedeschi & Moore (2016), there are 5 components of positive changes experienced by individuals who achieve PTG, including: *First*, personal strength. In the face of stressful events, an individual may realize the ability to overcome complex problems. The daily battle with post-traumatic adversity makes some people more independent; they realize they can face extreme situations successfully. *Second*, improved relationships with others. A vital part of the post-traumatic experience is finding and receiving support from others. By receiving support, relationships become stronger and more intimate with family, friends, and extended family. *Third*, appreciation of life. After going through a traumatic experience, a person may become more appreciative of what they have. Loss or the threat of loss makes many people realize how precious their life is. *Fourth*, new paths and possibilities. One outcome that may be seen in individuals after a traumatic event is to become more steadfast in holding certain beliefs to guide their actions. These beliefs may reflect a new appreciation of life and priorities that may change as one appreciates life more. *Fifth*, Spiritual changes and new understanding In the face of a traumatic event, a person may try to find meaning in what happened and roll with the event. As a result, one may experience an increased awareness of spiritual matters or understand how to live life well.

Ramos & Leal (2013) stated that ten factors influence *post-traumatic growth*: distress, personality characteristics, emotional disclosure, coping strategies, social support, environmental characteristics, assumptions, *ruminaton style*, spirituality and optimism. In addition, Jin et al. (2014) and Cohen (2022) mentioned that based on demographic factors, gender differences significantly influence the increase in PTG, where women tend to show a higher increase in PTG than men. Yan et al. (2021) mentioned that number of factors that encourage an increase in PTG in individual COVID-19 survivors are the period of COVID-19 diagnosis, social support, coping strategies, self-esteem, and emotional control. By identifying the factors that influence the development of PTG, the field of Health and Clinical Psychology developed different psychological interventions to assist people to achieve the state of PTG after Covid-19 pandemic. It is important to identify what have been the interventions conducted in different settings, and how were the result of each intervention. Since Indonesia has its own cultures and traditions, it is important to learn what and how have been different psychological interventions from different part of the world have assisted people to achieve the state of PTG due to Covid-19. Because Covid-19 Pandemic is a traumatic event that just happened recently, there are few, still, studies that examined the effect of certain psychological intervention to assist people to achieve the state of PTG. As Health and Clinical Psychologist, the authors are interested in conducting a literature review study with the objective of identifying what psychological interventions that were effective in increasing PTG among people or group of people after the COVID-19 pandemic. Findings on this study will be learned and made as reference to develop psychological interventions among Indonesians with mental health problem after the exposure of intense Covid-19 pandemic to achieve PTG.

Method

Screening process.

To screen the articles were used PICOT framework, which stands for *Problem or Population, Interventions, Comparisons (this criteria was labeled as “non comparison” since the study did not aimed to compare anything), Outcomes and Time* (Wulandari & Wihardja, 2022). Based on this framework, the

research question of this study is “*what psychological intervention given to people or group who exposed from Covid-19, to achieve PTG?*”. PICOT criteria can be seen in Table 1.

Table 1. PICOT framework criteria

Criteria	Descriptions
<i>Populations</i>	Traumatized (people or groups) by Covid-19 pandemic
<i>Interventions</i>	Psychological Interventions
<i>Comparison</i>	Non-comparison
<i>Outcomes</i>	Post Traumatic Growth (PTG)
<i>Time</i>	Studies were published between 2020-2023

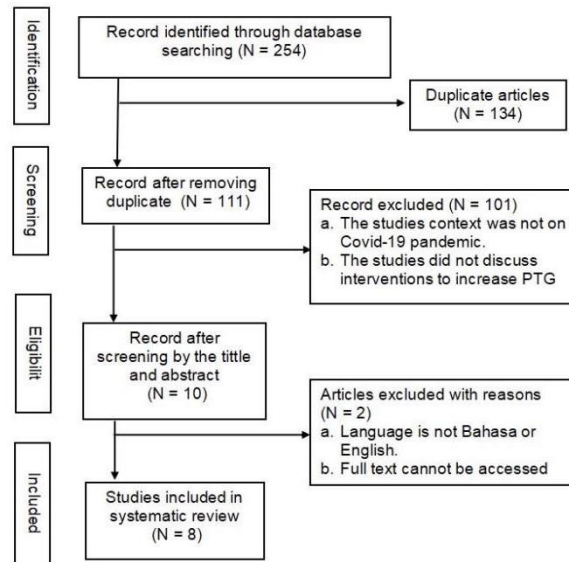
Search strategy

The article search was conducted through a *database of journal providers* accessed through *Taylor & Francis, Springer, and ScienceDirect websites*, as well as *grey literature*. The article was collected from June 19 to July 15, 2023. The keywords used in searching for articles were “*psychotherapy*,” “*intervention*,” “*post-traumatic growth*,” “*posttraumatic growth*,” and “*Covid-19*”. The inclusion criteria applied were *full-text articles* written in English or Indonesian, published between January 2020 to May 2023, and the population used was individuals or groups affected by the COVID-19 pandemic. Articles that did not contain the above criteria were excluded.

Data extraction and analysis

The extraction and systematic literature review approach conducted using the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA framework), which can be used to reduce articles when searching and improve the quality of reporting for publication (Yiniartika et al., 2022). To ensure the eligibility of each article for further process to be included into the selected one, two people were involved to performed critical appraisal. Those two were Clinical psychologist and one senior student from the Master Program of Clinical Psychology. The criteria that ensuring the quality of the articles included in this study was not written in English or Bahasa, and the intervention was effective to improve PTG in the context of the COVID-19 pandemic.

Figure 1 Database searching diagram (PRISMA)



Result

Based on the literature search that has been conducted, researchers found 254 articles from various *databases*; after reviewing the titles of the various articles, there were 134 duplicate articles and 103 articles that were irrelevant to the inclusion criteria. After ensuring the eligibility of the articles, there were 8 articles met the criteria for analysis (see table 2).

Table 2
Results of article analysis

No	Journal Identity	Research Design	Intervention	Result
1	Nurhasanah et al. (2023). The effect of Mindfulness Based Cognitive Therapy (MBCT) to increase PTG. (Indonesia)	<i>Quasi Experiment</i>	<i>Mindfulness Based Cognitive Therapy (MBCT)</i>	Subject 1 experienced an increase in total PTG score of 11 points or 10.5%, while subject 2 experienced an increase in total PTG score of 12 points or 11.4%. From these results, it appears that MBCT positively impacts PTG in individuals who have experienced the loss of a nuclear family member due to COVID-19.
2	Read et al. (2022). A randomized controlled trial (RCT) exploring the impact of a photography intervention on wellbeing and <i>post traumatic growth</i> during the covid-19 pandemic. (UK)	<i>Randomized Controlled Trial (RCT)</i>	Photography Intervention	There were significant positive correlations between photography engagement and <i>well-being</i> , as well as photography engagement and PTG for the intervention group ($r(56) = .33, p = .01$ and $r(56) = .32, p = .02$ respectively), but not in the control group ($r(53) = .05, p = .73$, and $r(53) = -.14, p = .33$ respectively).
3	Bechard et al. (2021). Feasibility, acceptability, and potential effectiveness of a online expressive writing intervention for covid-19 resilience. (USA)	<i>Single-group non-randomized & non-blinded pre and posttest clinical trial design</i>	Expressive writing (online)	The study's primary outcome showed an increase in <i>resilience</i> after the 6-week online expressive writing intervention, which was maintained at the one-month follow-up. Secondary outcomes included a significant decrease in stress scores after the intervention and sustained after one-month follow-up. In addition, there was an increase in PTG scores, which also persisted after one-month follow-up.
4	Yu et al. (2022) Effects of character strength-based intervention vs group counseling on post-traumatic	<i>Randomized non-inferiority trial</i>	<i>Character strength-based intervention & group counseling</i>	The CSI and GC groups had similar socio- demographic characteristics, with the CSI and GC groups experiencing improvements in PTG and <i>well-being</i> . The mean score for PTG was significantly higher for the

No	Journal Identity	Research Design	Intervention	Result
	growth, well-being, and depression among university students during the covid-19 pandemic in Guandong, China: a non-inferiority trial. (China)			CSI group compared to the GC group. Meanwhile, <i>well-being</i> scores were similar between the CSI and GC groups. Furthermore, neither the CSI group nor the GC group experienced a decrease in depression scores.
5	Fernandez et al. (2021). Posttraumatic growth in professional caring for people with intellectual disabilities during covid-19: a psychological intervention. (Spain)	Quasi-experimental randomized	Mindfulness-based emotion regulation	Results showed statistically significant differences in PTG variables with significant differences in the Time X Group interaction ($F(1,30) = 5.998; p = 0.021$). These results reflect a significant increase (20.1-27.2, approximately 0.5 s.d) pre- and post- treatment in the intervention group. For the other variables (mental health, <i>burnout</i> , coping strategies, resilience, <i>vital satisfaction</i> , optimism, and empathy), no significant differences were found between groups
6	Pfeiffer et al. (2023). Changes in <i>post traumatic growth</i> after a virtual contemplative intervention during the covid-19 pandemic. (USA)		Compassion & Growth Workshop	PTG increased with the Virtual Contemplative Intervention " <i>Compassion & Growth Workshop</i> ." Overall, PTG increased among participants, with the most significant increases in connecting with others, new possibilities, and personal power.
7	Deleuil et al. (2023). Evaluating an online self-distancing intervention to promote emotional regulation and <i>post traumatic growth</i> during the covid-19 pandemic. (Australia)	Cross sectional & Randomized Controlled Trial (RCT)	Online Self-Distancing Intervention: to promote emotional regulation and PTG	Emotion regulation strategies have relevance to PTG related to the COVID-19 pandemic. Manova's analysis showed that <i>self-distancing</i> was effective in regulating negative affect, but Anova showed that this was not due to increased use of emotion regulation strategies and did not improve PTG or psychosocial functioning. These

No	Journal Identity	Research Design	Intervention	Result
8	Bonazza et al. (2022). Recovering from covid-19: psychological sequelae and post traumatic growth six month after discharge. (Italy)	Cross-sectional study	Psychology Consultation	findings support further research on the relevance of emotion regulation to PTG and provide a foundation for understanding PTG and developing interventions that promote PTG within a broader stress management framework. The study sample consisted of mostly males (72%) with a mean age of $\bar{x} \pm SD$ 58.7 \pm 11.8 years. Participants reported that 34% experienced anxiety symptoms, 24% experienced depressive symptoms, and 20% met the criteria for PTSD. Meanwhile, patients who received psychological consultations were carried out according to the participants' requests during monitoring and <i>follow-up</i> after being discharged from the hospital after treatment due to COVID- 19 reported PTG growth; this PTG was also associated with young age

Discussion

Overall, this SLR provides an overview of the forms of psychological intervention that have succeeded in improving the state of PTG experienced by people after exposed by traumatic experiences during Covid-19 pandemic. Not all interventions were in the form of psychotherapy, but also interventions in the form of guidance for expressive writing, carrying out hobby activities in the form of photographing, or counseling. Only one study came from Indonesia, while the rest of seven studies came from high income country.

Mindfulness-Based Cognitive Therapy (MBCT) is one form of psychological intervention that is considered to be able to encourage the growth of PTG in individuals affected by the COVID-19 pandemic. Williams et al. (2021) mentioned that *mindfulness* is one of the most powerful variables in predicting PTG in

individuals who experience traumatic grief, including losing a loved one. Based on research conducted by Nurhasanah et al. (2023), which provides MBCT as a form of intervention for individuals who have lost nuclear family members due to COVID-19. After going through MBCT intervention, the subject's view of relationships with family and friends has changed; both participants realize their relationship with others will be different when facing difficulties. After the traumatic event experienced, in this case, the loss of a nuclear family member due to COVID-19, participants understood that they experienced an increase in closer relationships with others. Both participants who previously experienced negative rumination, through *mindfulness*, felt helped in focusing on present events; cognition exercises facilitated both subjects in finding different perspectives in addressing their daily problems. *Mindfulness* is closely related to positive psychology and focuses on feelings and things experienced in the present and then accepts them without judgment on the event. In this stage, rumination is considered very important in improving the *belief system* after losing a loved one. Rumination can be good when individuals can find meaning from the events experienced. This discovery of meaning is one of the positive changes after a traumatic event so that the individual can be said to have achieved *post-traumatic growth*.

MBCT is well known as a process of “purposefully directing one's attention to the present moment in a non-judgmental way”, and that principle seems to diminish physiological arousal, increase people's control over their attention, and amplify acceptance of unwanted experiences in the past, and that is how MBCT address processes that hold PTSD in people's mind (Lang, 2017). In the case of Indonesian study, Nurhasanah et al. (2023) explained that observing, describing, and acting with awareness and accepting without judging in MBCT can help participants improve PTG.

Photography is another intervention that has been shown to be effective in improving PTG. Based on research conducted by Read et al. (2022), Well-being and *post-traumatic growth* in the group treated with photography intervention increased significantly compared to the control group. The same results were also obtained during a follow-up conducted one month later. The intervention group treated with the photography intervention for two weeks was asked to take photos related to things that made them feel positive emotions and hope. No restrictions were placed on the photos' quantity, quality, or content. The photos taken during the intervention could be abstract or literal according to

the participants' wishes. After taking the photos, participants were asked to write a caption on each photo taken. The caption can contain descriptions, reflections, and thoughts about the photo. At the end of each week, participants were asked to choose five photos to send to the researcher where the five photos sent represented experiences and were considered very meaningful or just limited to the participant's favorite photos.

Overall, the photography intervention in this study is assumed to have a therapeutic effect. By captioning the photos or images taken, participants were able to engage in *disclosure* that facilitated their catharsis of thoughts and feelings related to the experience. Writing gratitude and imagining the best possibilities after the pandemic can bring about positive feelings, social connectedness, and decreased stress related to the COVID-19 pandemic. It is possible that captioning photos or images taken during the intervention provides a therapeutic effect and an opportunity for participants to reflect and express their experiences during the COVID-19 pandemic. Buchan (2020) assert that photography as the psychological intervention is very empowering for people with mental health problem. This means that this method is promising to be used for enhancing PTG after Covid-19 pandemic.

Bechard et al. (2021) conducted a study where the participants in the study had experienced major impacts of the COVID-19 pandemic, such as infected families, loss of income and employment, and significant changes in work arrangements. There were 46 participants involved in the intervention who completed the entire study. The intervention was conducted for 6 weeks using the expressive writing method, implemented virtually through the Zoom application. The Pannebaker paradigm guide was used in the first week to explore the emotional experience of trauma and encouraged participants to explore their views on the experience. According to Pannebaker (2004), expressive writing affects people on multiple levels—cognitive, emotional, social, and biological. In the following weeks, the expressive writing intervention continued with themes related to expressing difficult emotions about the COVID-19 pandemic. Some of these themes included compassion towards oneself and others, forgiveness, gratitude, personal strength, the positive side of adversity, lessons learned, and positive things that can happen in the future.

The study's primary outcome showed an increase in *resilience* after the 6-week intervention, which was maintained at the one-month follow-up. Secondary outcomes included a significant decrease in stress scores after the intervention that persisted after one month of follow-up. In addition, there was an increase in PTG scores that also persisted after one month of follow-up. Thus, this study suggests that an expressive writing intervention can help participants cope with the emotional impact of the COVID-19 pandemic and improve resilience and PTG. In line with the research above, Zheng et al. (2023) found that expressive writing based on healing effects can encourage catharsis and *reframing*, as well as facilitate problem-solving and improve reflection in dealing with traumatic events, especially those related to COVID-19.

Zimmermann et al. (2021) mentioned that university students have a high risk of experiencing mental health problems during the COVID-19 pandemic. Yu et al. (2022) conducted a study to obtain a picture of the mental health of students in the 2019-2020 academic year (before and during the Covid-19 pandemic), showing that there was a high prevalence and increase in depression and anxiety during the Covid-19 pandemic in students. Yu et al. (2022) conducted with 142 first- and second-year university students as research subjects and involved *Character Strength-Based Intervention (CSI)* as a form of character strength-based intervention in participants. The CSI intervention involved identifying *the top five-character strengths*, such as a passion for life, hope, love of learning, leadership, perspective, and *strengths growth* in participants. Participants were helped to realize these strengths and explore positive capacities through questions, reflections, and tasks during the 7.5-hour intervention. The conventional group counseling (GC) intervention was based on the university student group counseling guide with COVID-19 situational adjustments. The GC intervention also lasted 7.5 hours. The results showed that the group receiving CSI experienced an increase in PTG and *well-being*, equivalent to the group receiving conventional group counseling (GC). However, both CSI and GC groups did not experience a significant decrease in depression scores.

Character strengths-based intervention is based on the core knowledge of positive psychology that was developed by Martin Seligman (Schutte & Malouff, 2019). These strengths that were identified as somewhat universal across time and cultures, such as courage, humanity, wisdom, justice, temperance and transcendence (Schutte & Malouff, 2019). The level of PTG in the Yu et al study (2022) among the

CSI group was significantly greater, which show character strengths, especially human virtues, and transcendence, play an essential role in PTG and mental health during crises, including the COVID-19 pandemic.

Chen et al. (2021) mentioned that health workers, especially nurses involved in handling COVID-19, are very vulnerable to negative psychological impacts and can cause difficulties in the future if not handled properly. Thus, developing interventions to anticipate the negative impact of the COVID-19 pandemic and encourage PTG in this group is very important. Fernández et al. (2021) proved that psychological interventions focusing on *mindfulness-based* emotion regulation can help health workers build a more resilient personality to deal with difficult situations, including the COVID-19 pandemic. This intervention proved a significant increase in scores on the *post-traumatic growth* variable, but there were no significant changes in other variables. However, participants showed stable tenacity, life satisfaction, and optimism in both evaluations. These factors play a role in reducing stress and improving mental well-being.

Furthermore, Pfeiffer et al. (2023) conducted a study by providing a contemplative intervention entitled "*Compassion & Growth Workshop*," which aims to improve mental health and encourage PTG when dealing with traumatic events such as COVID-19 for nurses. Contemplative interventions refer to a series of practices or activities designed to help participants increase self-awareness, practice *mindfulness*, and deepen their understanding of themselves. Overall, PTG increased among participants, with the most significant increases in connecting with others, new possibilities, and personal power. Thus, it can be said that the intervention entitled *Compassion & Growth Workshop* effectively encourages PTG in the context of COVID-19 in health workers, especially nurses.

The next intervention that proved relevant to PTG during the COVID-19 pandemic was an online-based intervention called "*self-distancing*." Deleuil & Mussap (2023) conducted a study to test a *self-distancing* intervention in which there were three types of reflection to encourage emotion regulation and PTG. According to Kross & Ayduk (2017), people try to understand their feelings when they face bad things are upset, but does it actually lead them to feel better? No, because people's attempts to "work-through" their negative feelings should be guided through an integrative program that

addressed this issue by focusing on the role that *self-distancing*, to facilitating people to have adaptive self-reflection (Kross & Ayduk, 2017). In Deleuil & Mussap study, the three types of reflection in the intervention are *self-immersed*, which refers to a more in-depth and emotional way of looking at experiences or events that cause negative emotions. The second type of reflection is *spatially self-distanced*, where participants try to view their experiences from a more objective perspective, meaning that they try to imagine themselves as outsiders observing the situation without being directly emotionally involved. The third type of reflection is *temporally self-distanced*, in which participants are asked to imagine how they would view or assess the experience in the future, helping them to gain a calmer and more objective insight into the event.

Bonazza et al. (2022) conducted a study aimed at assessing the extent of the prevalence of symptoms of anxiety, depression, PTSD, and PTG experienced by patients hospitalized due to COVID-19 during the first wave of COVID-19 and after the participants were discharged home. The study was conducted using a *cross-sectional* method, and the study sample consisted of 100 patients. Regarding psychological symptoms, participants reported that 34% experienced anxiety symptoms, 24% experienced depression symptoms, and 20% met the criteria for PTSD. Meanwhile, patients who received psychological consultations were conducted according to the participants' requests during monitoring and *follow-up* after being discharged from the hospital after treatment due to COVID-19. They reported an increase in PTG, where this increase in PTG was also associated with young age. In line with that, (Boyle et al., 2017; Sharp et al., 2018) mentioned that individuals with easy age tend to report higher PTG scores than individuals with older age. The psychological consultation participants receive after COVID-19 treatment is tailored to their individual conditions to help them overcome psychological suffering and encourage an increase in PTG undergoing hospitalization due to COVID-19.

Based on the research of Bonazza et al. (2022), it can be concluded that psychological counseling is an appropriate referral for patients with significant psychological symptoms. At the same time, receiving psychological counseling after a traumatic event related to COVID-19 may promote PTG improvement. The findings in this study show that after being hospitalized and receiving psychological consultation, some patients managed to give new meaning to their lives, find value in relationships with others, and find new resources. Based on PTG theory, a number of changes experienced by these

patients can be categorized as PTG. Thus, psychological interventions have the potential to help COVID-19 survivors cope with the emotional impact of COVID-19 and improve PTG.

Limitations of this study is that it only included articles in English and Bahasa, so there were quite small articles captured. It is very likely that there are many non-English language articles contain research on interventions to increase PTG among people with mental problems after exposure to COVID-19. At the other side, findings from this SLR contain a challenge within the field of Health and Clinical Psychology, to develop psychological interventions that doesn't have to be a pure psychotherapy, but also possible in the form of vocational interventions, the use of hobbies as a mediator to increase PTG, or other innovative approaches. From this SLR it is showed that psychological interventions in Indonesia is still very few, means that the possibility to develop psychological intervention to increase PTG after the Covid-19 pandemic among the Indonesians is widely open, either using various psychological approach.

Conclusion

The COVID-19 pandemic has had a far-reaching impact on various aspects of human life, so it can be categorized as a traumatic event because of massive events and human helplessness in dealing with the coronavirus, which is dangerous and even lethal. The exposure to COVID-19 that was not only the contagious nature of the virus, but the socio-economic consequences of lock down and prolonged quarantine had triggered various mental health problems of depression and post-traumatic disorders. On the other hand, traumatic events such as this COVID-19 pandemic can also be a momentum for someone to experience changes in various aspects, including psychological aspects, in a more positive direction and lead to a state of PTG.

This literature review reflects that psychological interventions to assist people in improving PTG were quite limited and most studies were developed in high income countries. Further practices and researches in the field of Health and Clinical Psychology are very wide open to conduct any psychological interventions to assist the neediest people. Learning from this SLR, psychological intervention in the context of Indonesia may be designed with cultural touch, in a wide array of variation.

Acknowledgment

The Authors would like to thank to the Directorate of Research and Community Service, Ministry of Research, Technology and Higher Education of The Republic of Indonesia (Letter of Agreement on Implementation of Post Graduate research grant number 042/PPS-PTM/LPPM UAD/VI/2023).

References

- Badan Nasional Penanggulangan Bencana Nasional (April, 2020). *Presiden Tetapkan Covid-19 Sebagai Bencana Nasional*. <https://bnpb.go.id/>
- Bonazza, F., Luridiana Battistini, C., Fior, G., Bergamelli, E., Wiedenmann, F., D'Agostino, A., & Lamiani, G. (2022). Recovering from covid-19: psychological sequelae and post-traumatic growth six months after discharge. *European Journal of Psychotraumatology*, 13(1), 1-8. <https://doi.org/10.1080/20008198.2022.2095133>
- Bechard, E., Evans, J., Cho, E., Lin, Y., Kozhumam, A., Jones, J., & Glass, O (2021). Feasibility, acceptability, and potential effectiveness of an online expressive writing intervention for covid-19 resilience. *Complementary therapies in clinical practice*, 45, 1-8. <https://doi.org/10.1016/j.ctcp.2021.101460>
- Boyle, C. C., Stanton, A. L., Ganz, P. A., & Bower, J. E. (2017). Posttraumatic growth in breast cancer survivors: does age matter?. *Psycho-oncology*, 26(6), 800-807. <https://doi.org/10.1002/pon.4091>
- Brooks S.K., Webster R.K., Smith L.E., Woodland L., Wessely S., Greenberg N., Rubin G.J. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020; 395: 912–920. [https://doi.org/10.1016/S0140-6736\(20\)30460-8](https://doi.org/10.1016/S0140-6736(20)30460-8)
- Buchan, C. A. (2020). Therapeutic benefits and limitations of participatory photography for adults with mental health problems: A systematic search and literature review. *Journal of Psychiatric and Mental Health Nursing*, 27(5), 657-668. <https://doi.org/10.1111/jpm.12606>
- Carmassi, C., Foghi, C., Dell'Oste, V., Cordone, A., Bertelloni, C. A., Bui, E., & Dell'Osso, L. (2020). PTSD symptoms in healthcare workers facing the three coronavirus outbreaks: What can we expect after the COVID-19 pandemic. *Psychiatry research*, 292, 113312.
- Chen, R., Sun, C., Chen, J. J., Jen, H. J., Kang, X. L., Kao, C. C., & Chou, K. R. (2021). A large-scale survey on trauma, burnout, and post traumatic growth among nurses during the covid-19 pandemic. *International journal of mental health nursing*, 30(1), 102-116. <https://doi.org/10.1111/inm.12796>
- Cohen-Louck, K. (2022). Differences in post-traumatic growth: Individual quarantine, covid-19

- duration and gender. *Frontiers in Psychology*, 13, 01-09. doi: 10.3389/fpsyg.2022.920386
- Deleuil, S., & Mussap, A. J. (2023). Evaluating an online self-distancing intervention to promote emotional regulation and *post traumatic growth* during the covid-19 pandemic. *Anxiety, Stress, & Coping*, 36(1), 18-37. <https://doi.org/10.1080/10615806.2022.2150177>
- Fernández-Ávalos, M. I., Pérez-Marfil, M. N., Fernández-Alcántara, M., Ferrer-Cascales, R., Cruz-Quintana, F., & Turnbull, O. H. (2021). Post-traumatic growth in professionals caring for people with intellectual disabilities during covid-19: a psychological intervention. *In Healthcare*. 10 (1). 1-13. <https://doi.org/10.3390/healthcare10010048>
- Horesh, D., & Brown, A. D. (2020). Traumatic stress in the age of covid-19: A call to close critical gaps and adapt to new realities. *Psychological Trauma: Theory, Research, Practice, and Policy*, 12(4), 331-335. <https://doi.org/10.1037/tra0000592>
- Ilpaj, S. M., & Nurwati, N. (2020). Analisis pengaruh tingkat kematian akibat COVID-19 terhadap kesehatan mental masyarakat di Indonesia. *Focus: Jurnal Pekerjaan Sosial*, 3(1), 16-28. <https://doi.org/10.24198/focus.v3i1.28123>
- Jin, Y., Xu, J., & Liu, D. (2014). The relationship between post traumatic stress disorder and post traumatic growth: gender differences in PTG and PTSD subgroups. *Social psychiatry and psychiatric epidemiology*, 49, 1903-1910. doi 10.1007/s00127-014-0865-5
- Kementrian Kesehatan Republik Indonesia, (2023). *Infeksi Emerging* Kementerian Kesehatan RI. <https://infeksiemerging.kemkes.go.id/dashboard/covid-19/>. (Diakses pada 08 Juli, 2023)
- Kross, E., & Ayduk, O. (2017). Self-distancing: Theory, research, and current directions. In *Advances in experimental social psychology* (Vol. 55, pp. 81-136). Academic Press. <https://doi.org/10.1016/bs.aesp.2016.10.002>
- Lang, A. J. (2017). Mindfulness in PTSD treatment. *Current Opinion in Psychology*, 14, 40-43. DOI: 10.1503/jpn.170021
- Nihayah, Z., Layyindah, L., Lubis, N. N. A., Mulyati, S., Puri, V. G. S., & Rahmani, I. S. (2023). Patience In Reducing Working Mother's Stress During Pandemic Of Covid-19. *Psikis: Jurnal Psikologi Islami*, 9(1), 137-144. <https://doi.org/10.19109/psikis.v9i1.13915>
- Nurhasanah, H., Sartika, D., & Sumaryanti, I. U. (2023). Pengaruh mindfulness based cognitive therapy (MBCT) dalam meningkatkan post-traumatic growth (PTG). *Journal of Islamic and Contemporary Psychology (JICOP)*, 3(1), 182-194. <https://doi.org/10.25299/jicop.v3i1s.12358>
- Pennebaker, J. W. (2004). Theories, therapies, and taxpayers: On the complexities of the expressive writing paradigm. *Clinical Psychology: Science and Practice*, 11(2), 138-142.
- Pfeiffer, K., Cunningham, T., Cranmer, J. N., Harrison, T., Crosby, H., Schroeder, K., & Coburn, C. (2023). Changes in *Post traumatic growth* After a Virtual Contemplative Intervention During the COVID-19 Pandemic. *JONA: The Journal of Nursing Administration*, 53(1), 40-46. doi: 10.1097/NNA.0000000000001240
- Pratiwi, W. R., & Sukarta, A. (2020). Hubungan pemberitaan media sosial terhadap tingkat kecemasan

- perempuan pada masa pandemi covid-19. In *Prosiding Seminar Nasional Kesehatan Masyarakat 2022*. 1 (1), 111-120. <https://conference.upnvj.ac.id/index.php/semnashmkm2020/article/view/1055>
- Presidenri.go.id. (2023). *Pemerintah Putuskan Indonesia Masuk Masa Endemi*. <https://www.presidentri.go.id/siaran-pers/pemerintah-putuskan-indonesia-masuki-masa-endemi/>. (Diakses pada 10 Juli, 2023)
- Ramos, C., & Leal, I. P. (2013). *Post traumatic growth* in the aftermath of trauma: A literature review about related factors and application contexts. *Psychology, Community & Health*, 2, 43-54.
- Read, R. K., Mason, O. J., & Jones, C. J. (2022). A randomised controlled trial (RCT) exploring the impact of a photography intervention on wellbeing and *post traumatic growth* during the COVID-19 pandemic. *Arts & Health*, 1-17. <https://doi.org/10.1080/17533015.2022.2107033>
- Sebayang, R (Maret, 2020). Alert! WHO resmi tetapkan corona pandemic. Diakses dari: <https://www.cnbcindonesia.com/news/20200312064200-4-144245/alert-who-resmi-tetapkan-corona-pandemi/> 08 Juli, 2023
- Sharp, L., Redfearn, D., Timmons, A., Balfe, M., & Patterson, J. (2018). *Post traumatic growth* in head and neck cancer survivors: Is it possible and what are the correlates?. *Psycho-Oncology*, 27(6), 1517-1523. <https://doi.org/10.1002/pon.4682>
- Schutte, N. S., & Malouff, J. M. (2019). The impact of signature character strengths interventions: A meta-analysis. *Journal of Happiness Studies*, 20, 1179-1196.
- Tedeschi, R. G., & Moore, B. A. (2016). *The post traumatic growth workbook: Coming through trauma wiser, stronger, and more resilient*. New Harbinger Publications.
- Tedeschi, R. G., Shakespeare-Finch, J., Taku, K., & Calhoun, L. G. (2018). *Post traumatic growth: Theory, research, and applications*. Routledge.
- Vazquez, C., Valiente, C., García, F. E., Contreras, A., Peinado, V., Trucharte, A., & Bentall, R. P. (2021). Post-traumatic growth and stress-related responses during the covid-19 pandemic in a national representative sample: The role of positive core beliefs about the world and others. *Journal of happiness studies*, 2915-2935. <https://doi.org/10.1007/s10902-020-00352-3>
- Williams, H., Skalisky, J., Erickson, T. M., & Thoburn, J. (2021). *Post traumatic growth* in the context of grief: Testing the mindfulness-to-meaning theory. *Journal of Loss and Trauma*, 26(7), 611-623. <https://doi.org/10.1080/15325024.2020.1855048>
- Wulandari, C. I., & Wihardja, H. (2022). Penguatan Implementasi Manajemen Konflik dan Teknik Asertif dalam Keperawatan di RSUD Antonius Pontianak. *Literasi: Jurnal Pengabdian Masyarakat dan Inovasi*, 2(2), 1194-1204.
- Yan, S., Yang, J., Ye, M., Chen, S., Xie, C., Huang, J., & Liu, H. (2021). Post-traumatic growth and related influencing factors in discharged COVID-19 patients: a cross-sectional study. *Frontiers in psychology*, 12, 1-9. <https://doi.org/10.3389/fpsyg.2021.658307>
- Yu, Y., Chotipanvithayakul, R., Wichaidit, W., & Cai, W. (2022). Effects of character strength-based intervention vs group counseling on post-traumatic growth, well-being, and depression among

university students during the COVID-19 pandemic in guangdong, China: a non-inferiority trial. *Psychology Research and Behavior Management*, 1517-1529.

<https://doi.org/10.2147/PRBM.S359073>

Yuniartika, W., Karunia, F. F., & Nurjanah, F. (2022). Literature Review: Pengaruh Terapi Murottal Terhadap Kecemasan Pada Pasien Hemodialisa. *Jurnal Kesehatan*, 11(2), 106-112. Doi 10.37048/kesehatan.v11i2.429

Zheng, X., Qu, J., Xie, J., Yue, W., Liang, X., Shi, Z., & Liu, C. (2023). Effectiveness of online expressive writing in reducing psychological distress among the asymptomatic COVID-19 patients in Fangcang Hospitals: A quasi-experiment study. *Frontiers in Psychology*, 13, 1-10. <https://doi.org/10.3389/fpsyg.2022.1042274>

Zimmermann, M., Bledsoe, C., & Papa, A. (2021). Initial impact of the COVID-19 pandemic on college student mental health: A longitudinal examination of risk and protective factors. *Psychiatry research*, 305, 1-9. <https://doi.org/10.1016/j.psychres.2021.114254>