1. **Adjorlolo, S., Adjorlolo, P., Andoh-Arthur, J., Ahiable, E. K., Kretchy, I. A., & Osafo, J. (2022). Post-Traumatic Growth and Resilience among Hospitalized COVID-19 Survivors: A Gendered Analysis. *International Journal of Environmental Research and Public Health*, *19(16)*, 10014. https://doi.org/10.3390/ijerph191610014**

Abstract: The literature on behavioral outcomes associated with the COVID-19 pandemic is inundated with mental health burdens such as depression and stress disorders. The current study investigated gender invariance on resilience and post-traumatic growth (PTG) as positive psychological changes associated with the COVID-19 pandemic. A total of 381 survivors of the COVID-19 infection completed measurements of resilience, PTG, violence and stigma experience, and mental health problems like post-traumatic stress disorder (PTSD). The data were analyzed using descriptive statistics, correlation, multivariate regression, and a latent profile analysis. The results revealed that more than half of the participants had high scores on resilience (53.6%) and PTG (60.9%). The positive psychological changes, although independent of each other, were moderated by gender, and influenced by the negative experiences of participants such as stigma, violence, and PTSD. Latent profile analyses revealed three classes of participants, two of which were characterized by high scores on mental health problems and PTG. The clusters were invariant across gender. Surviving COVID-19 contributed to resilience and PTG. These can be targeted for intervention programs to mitigate the mental health burden occasioned by the pandemic.

1. **Arnout, B. A., & Al‐Sufyani, H. H. (2021). Quantifying the impact of COVID ‐19 on the individuals in the Kingdom of Saudi Arabia: A cross‐sectional descriptive study of the posttraumatic growth. *Journal of Public Affairs, 21(4*). https://doi.org/10.1002/pa.2659** (only g and a)

Abstract: This study seeks to explore the effect of the COVID-19 outbreak pandemic on the posttraumatic growth among Saudi individuals and also to assess the effect of demographic variables on the PTG. A descriptive design was applied to detect the level of PTG and to determine the differences in PTG due to demographic variables. A randomized sample consisting of 365 participants was chosen; the participants’ ages ranged between 20 and 60. The study sample was divided into subgroups according to demographic variables. The posttraumatic growth scale (PTG-21) applied online to the study sample. The results indicated that there were high levels of improved personal relationships, increased emotional strength and resilience, greater spiritual connection, and a heightened sense of gratitude toward life among Saudis, while there were low levels of the new opportunities and the total score of posttraumatic growth. The results also found that there are significant statistical differences in the PTG due to demographic variables except academic degree have not no effect in PTG. The findings highlighting the importance of the psychological service centers, to help who suffer from the negative effects of COVID-19 pandemic outbreak symptoms such as anxiety, depression, and obsessive compulsive.

1. **Chasson, Miriam et al. (2022). “Posttraumatic growth in the wake of COVID-19 among Jewish and Arab pregnant women in Israel.” *Psychological trauma : theory, research, practice and policy, 14(8)*, 1324-1332. doi:10.1037/tra0001189**

Abstract: On the assumption that coping with a crisis from a position of vulnerability may elicit not only negative but also positive outcomes, this study examined posttraumatic growth (PTG) among Jewish and Arab pregnant women 6–7 months into the COVID-19 pandemic, exploring the contribution of ethnicity, personal resources (intolerance of uncertainty, optimism, and self-compassion), and COVID-19-related anxieties. In addition, the moderating roles of ethnicity, optimism, and self-compassion were examined. Method: A convenience sample of 916 Israeli women (517 Jewish, 399 Arab) was recruited from July 5 to October 7, 2020. through women's forums on social media. The participants completed an electronic questionnaire through Qualtrics software. Results: Arab women reported significantly higher PTG, COVID-19-related anxieties, optimism, and self-compassion than Jewish women. A 6-step hierarchical regression that was performed to determine the contribution of the independent variables to PTG revealed that younger age, being primiparous, being an Arab, optimism, self-compassion, and COVID-19-related anxieties were associated with greater PTG. Furthermore, a positive association between intolerance of uncertainty and PTG was found among Jewish, but not Arab women. Finally, the positive association between intolerance of uncertainty and PTG was stronger among women reporting higher self-compassion. Conclusions: The study sheds light on the potential for the positive outcome of PTG in the wake of the prolonged COVID-19 crisis and highlights the contribution of vulnerability and personal resources.

1. **Chen, Chuqian, and Suqin Tang. (2021). “Profiles of grief, post-traumatic stress, and post-traumatic growth among people bereaved due to COVID-19.” *European journal of psychotraumatology, 12(1),* 1947563. doi:10.1080/20008198.2021.1947563**

Abstract: COVID-19 deaths elevate the prevalence of prolonged grief and post-traumatic stress symptoms among the bereaved, yet few studies have examined potential positive outcomes. Moreover, how COVID-19 bereavement affects individual-level mental health outcomes is under-researched. This is the first study to use latent profile analysis (LPA) to identify heterogeneous profiles of prolonged grief, post-traumatic stress and post-traumatic growth among people bereaved due to COVID-19 and to identify predictors of latent class membership. Four hundred and twenty-two Chinese participants who were bereaved due to COVID-19 completed an online survey between September and October 2020. The survey included the International (ICD-11) Prolonged Grief Disorder Scale (IPGDS), the Post-traumatic Stress Disorder Checklist for DSM-5 (PCL-5) and the Post-traumatic Growth Inventory (PTGI). LPA was run in Mplus, and the 3-step auxiliary approach was used to test the predicting effects of potential predictors of latent class membership identified with chi-square tests and ANOVAs. Four latent profiles were identified: resilience (10.7%), growth (20.1%), moderate-combined (42.2%) and high-combined (27.0%). The bereaved who shared a close relationship with the deceased and identified COVID-19 as the fundamental cause of death were more likely to be in the high-combined group. A conflictful bereaved-deceased relationship reduces the chance of being in the growth group. Moreover, the death of a younger person and loss of a partner attributed to maladaptive outcomes. Serious attention needs to be paid to the mental health issues of people bereaved due to COVID-19 because nearly 70% of this group would have a moderate-combined or high-combined symptom profile. Special care should be given to those who lost someone younger, lost a partner or shared a close relationship with the deceased. Grief therapies that work on the conflicts between the deceased and the bereaved and unfinished business can be applied to facilitate growth.

1. **Chen, Ruey et al. (2021). “A Large-Scale Survey on Trauma, Burnout, and Posttraumatic Growth among Nurses during the COVID-19 Pandemic.” *International journal of mental health nursing, 30(1)*, 102-116. doi:10.1111/inm.12796 (logistic Reg )**

Abstract: A large-scale survey study was conducted to assess trauma, burnout, posttraumatic growth, and associated factors for nurses in the COVID-19 pandemic. The Trauma Screening Questionnaire, Maslach Burnout Inventory, and Posttraumatic Growth Inventory-Short Form were utilized. Factors associated with trauma, burnout, and posttraumatic growth were analysed using logistic and multiple regressions. In total, 12 596 completed the survey, and 52.3% worked in COVID-19 designated hospitals. At the survey’s conclusion in April, 13.3% reported trauma (Trauma ≥ 6), there were moderate degrees of emotional exhaustion, and 4,949 (39.3%) experienced posttraumatic growth. Traumatic response and emotional exhaustion were greater among (i) women (odds ratio [OR]: 1.48, 95% CI 1.12–1.97 P = 0.006; emotional exhaustion OR: 1.30, 95% CI 1.09–1.54, P = 0.003), (ii) critical care units (OR: 1.20, 95% CI 1.06–1.35, P = 0.004; emotional exhaustion OR: 1.23, 95% CI 1.12–1.33, P < 0.001) (iii) COVID-19 designated hospital (OR: 1.24, 95% CI 1.11–1.38; P < 0.001; emotional exhaustion OR: 1.26, 95% CI 1.17–1.36; P < 0.001) and (iv) COVID-19-related departments (OR: 1.16, 95% CI 1.04–1.29, P = 0.006, emotional exhaustion only). To date, this is the first large-scale study to report the rates of trauma and burnout for nurses during the COVID-19 pandemic. The study indicates that nurses who identified as women, working in ICUs, COVID-19 designated hospitals, and departments involved with treating COVID-19 patients had higher scores in mental health outcomes. Future research can focus on the factors the study has identified that could lead to more effective prevention and treatment strategies for adverse health outcomes and better use of resources to promote positive outcomes.

1. **Dominick, W., & Elam, T. (2023). Coping to What End?: Core Belief Disruption and Posttraumatic Growth During COVID-19. *Medical Research Archives, 11(1).* doi:10.18103/mra.v11i1.3518** (no full paper)

Abstract: The pandemic caused by the 2019 Novel Coronavirus disrupted life globally, leading to a disruption of cor(e beliefs, the need for coping strategies, and the possibility of posttraumatic growth, the positive psychological change that may occur after a stressful or traumatic event. This study followed 201 participants from the United States (Mage: 35.39, SD: 14.60) at four time points over the first year of the pandemic. Core belief disruption, the use of coping strategies, and posttraumatic growth were assessed in March 2020 (T1), April 2020 (T2), September 2020 (T3), and April 2021 (T4). From T1 to T4, core belief disruption significantly increased, and the use of most coping strategies decreased, but overall posttraumatic growth did not change. However, posttraumatic growth at all four time points was predicted by higher levels of core belief disruption, although which coping strategies predicted core belief disruption and posttraumatic growth varied based on the time of assessment and whether analyses were cross-sectional or longitudinal. Overall, the avoidant coping strategy of substance use was most frequently associated with core belief disruption, followed by the emotion-focused strategies of acceptance, self-blame, and religion. Interestingly, each problem-focused coping strategy was predictive of core belief disruption at one time point cross-sectionally, but no problem-focused coping strategy predicted core belief disruption longitudinally. Alternatively, the problem-focused coping strategies of active coping and positive reframing were the most frequent predictors of posttraumatic growth, while 50% of avoidant and emotion-focused coping strategies, such as self-distraction, denial, emotional support, and venting, were not associated with posttraumatic growth at any time point. These results indicate that participants were flexible with the use of coping strategies based on the circumstances at the time. Additionally, the coping strategies that primarily predict core belief disruption differ from the coping strategies that primarily predict posttraumatic growth. These findings highlight the coping strategies that should be avoided since they may contribute primarily to core belief disruption and encourage the use of coping strategies that may promote psychological growth following traumatic events.

1. **Dwiwardani, C., Shelton, A. J., & Oda, A. Y. (2022). Attachment and Mental Health in the COVID-19 Pandemic: Posttraumatic Growth and Religion as Moderators. *Religions, 13(5),* 470. https://doi.org/10.3390/rel13050470** (reg but only as moderator no ES)

Abstract: Consistent with the teachings in various religious traditions of finding meaning amidst suffering, we suspected that Posttraumatic Growth (PTG) would have a buffering effect on attachment insecurity and psychosocial outcomes. We examined the effects of anxious and avoidant attachment, PTG, and religion on psychosocial outcomes (i.e., anxiety, depression, and loneliness). Data from 466 participants recruited from Amazon Mechanical Turk (MTurk) and a college student sample revealed that PTG served as a moderator between anxious attachment and (a) depression and (b) loneliness, and (c) PTG buffered the relationship between anxious attachment and anxiety to a greater extent among Christians, compared to non-Christians. On the other hand, (a) PTG did not moderate the link between attachment avoidance and depression, (b) PTG exacerbated the relationship between attachment avoidance and anxiety, and (c) PTG buffered the association between attachment avoidance and loneliness for non-Christians, but this link was amplified for Christians. We discuss the findings that PTG interacted with religion and offered protective effects for anxious (but not avoidant) attachment. Factors that may have contributed to the difference between the two attachment styles are discussed, along with implications from cultural-religious and adult attachment frameworks. Keywords: anxious attachment; avoidant attachment; posttraumatic growth; anxiety; depression; loneliness.

1. **Feingold, J. H., Hurtado, A., Feder, A., Peccoralo, L., Southwick, S. M., Ripp, J., & Pietrzak, R. H. (2022). Posttraumatic growth among health care workers on the frontlines of the COVID-19 pandemic. *Journal of Affective Disorders*, *296*, 35–40.** [**https://doi.org/10.1016/j.jad.2021.09.032**](https://doi.org/10.1016/j.jad.2021.09.032) (wave-2 ok)

Abstract: The COVID-19 pandemic has led to significant mental health consequences for frontline health care workers (FHCWs). However, no known study has examined the prevalence, determinants, or correlates of posttraumatic growth (PTG) in this populations. Data were analyzed from a prospective cohort of FHCWs at an urban tertiary care [hospital](https://www.sciencedirect.com/topics/medicine-and-dentistry/hospital) in New York City (NYC). Assessments were conducted during the spring 2020 pandemic peak (Wave 1) and seven months later (Wave 2). Multivariable [logistic regression](https://www.sciencedirect.com/topics/medicine-and-dentistry/logistic-regression-analysis) analyses were conducted to identify Wave 1 sociodemographic, occupational, and factors associated with PTG at Wave 2, and the association between aspects of PTG with burnout and pandemic-related PTSD symptoms at Wave 2. A total 76.8% of FHCWs endorsed moderate or greater PTG; the most prevalent domains were increased appreciation of life (67.0%), improved relationships (48.7%), and greater personal strength (44.1%). Non-White race/ethnicity, greater levels of positive emotions, pandemic-related PTSD symptoms, dispositional gratitude, and feelings of inspiration were independently associated with PTG. At Wave 2, endorsement of spiritual growth during the pandemic was associated with 52% and 44% lower odds of screening positive for pandemic-related PTSD symptoms and burnout, respectively; greater improvement in relationships was associated with 36% lower odds of screening positive for burnout. Single institution study and use of self-report instruments. Nearly 4-of-5 FHCWs report pandemic-related PTG, driven largely by salutogenic factors assessed during the pandemic surge. Interventions to bolster these factors may help promote PTG and mitigate risk for burnout and pandemic-related PTSD symptoms in this population.

1. **Finstad, G. L., Giorgi, G., Lulli, L. G., Pandolfi, C., Foti, G., León-Perez, J. M., Cantero-Sánchez, F. J., & Mucci, N. (2021). Resilience, Coping Strategies and Posttraumatic Growth in the Workplace Following COVID-19: A Narrative Review on the Positive Aspects of Trauma. *International Journal of Environmental Research and Public Health*, *18(18*), 9453.** [**https://doi.org/10.3390/ijerph18189453**](https://doi.org/10.3390/ijerph18189453) **(**review**)**

Abstract: The COVID-19 pandemic represents a traumatic event that has profoundly changed working conditions with detrimental consequences for workers' health, in particular for the healthcare population directly involved in addressing the emergency. Nevertheless, previous research has demonstrated that traumatic experiences can also lead to positive reactions, stimulating resilience and feelings of growth. The aim of this narrative review is to investigate the positive aspects associated with the COVID-19 pandemic and the possible health prevention and promotion strategies by analyzing the available scientific evidence. In particular, we focus on the constructs of resilience, coping strategies and posttraumatic growth (PTG). A literature search was performed on the PubMed, EMBASE, Scopus, Web of Science, Google Scholar and Psycinfo databases. Forty-six articles were included in the literature synthesis. Psychological resilience is a fundamental variable for reducing and preventing the negative psychological effects of the pandemic and is associated with lower levels of depression, anxiety and burnout. At the individual and organizational level, resilience plays a crucial role in enhancing wellbeing in healthcare and non-healthcare workers. Connected to resilience, adaptive coping strategies are essential for managing the emergency and work-related stress. Several positive factors influencing resilience have been highlighted in the development of PTG. At the same time, high levels of resilience and positive coping strategies can enhance personal growth. Considering the possible long-term coexistence and consequences of COVID-19, organizational interventions should aim to improve workers' adaptive coping skills, resilience and PTG in order to promote wellbeing.

1. **Garrido-Hernansaiz, H., Rodríguez-Rey, R., Collazo-Castiñeira, P., & Collado, S. (2022). The posttraumatic growth inventory-short form (PTGI-SF): A psychometric study of the spanish population during the COVID-19 pandemic. *Current Psychology.* https://doi.org/10.1007/s12144-021-02645-z** (Scale Assess, no ES)

Abstract: People can experience posttraumatic growth (PTG) when faced with potentially traumatic events. One of the most widely-used instruments to measure PTG is the Posttraumatic Growth Inventory-Short Form (PTGI-SF). However, it has not been validated for the Spanish population. This study explored the psychometric properties of the PTGI-SF in adults living in Spain during the COVID-19 pandemic. Since it is a global disaster, two items were added to assess communal PTG. The participants were adult inhabitants of Spain during the COVID-19 pandemic (N = 855). They completed the PTGI-SF in July 2020, along with the Impact of Event Scale – Revised to measure symptoms of posttraumatic stress disorder (PTSD). They also rated the degree to which they perceived the COVID-19 crisis as being severe. In November 2020, 592 participants once again completed the PTGI-SF. The factorial validity o was tested by Structural Equations Modeling (SEM). McDonald’s ω coefficients were calculated to test internal consistency. The Intra-class Correlation Coefficient (ICC) was obtained to assess test–retest reliability. Sensitivity and criterion-related validity were assessed by exploring the association of the PTGI-SF scores with gender, age, PTSD symptoms, and perceived severity. Results indicated good psychometric properties for an eight-item, four-factor structure of the inventory in terms of structural validity, reliability, sensitivity and criterion-related validity. These factors were: Relating to Others, Personal Strength, Spiritual Change, and Life Value and Opportunities. Communal PTG overlapped with social PTG, and therefore it was not included. Cultural differences need to be addressed when measuring PTG, especially in terms of spiritual growth.

1. **Giusti, E. M., Veronesi, G., Callegari, C., Castelnuovo, G., Iacoviello, L., & Ferrario, M. M. (2022). The North Italian Longitudinal Study Assessing the Mental Health Effects of SARS-CoV-2 Pandemic Health Care Workers—Part II: Structural Validity of Scales Assessing Mental Health. *International Journal of Environmental Research and Public Health, 19(15)*, 9541. https://doi.org/10.3390/ijerph19159541** (Scale Assess, no ES)

Abstract: It is unclear if the factor structure of the questionnaires that were employed by studies addressing the impact of COVID-19 on the mental health of Healthcare Workers (HCW) did not change due to the pandemic. The aim of this study is to assess the factor structure and longitudinal measurement invariance of the Maslach Burnout Inventory (MBI) and the factor structure of the General Health Questionnare-12 (GHQ-12), PTSD Checklist for DSM-5-Short Form (PCL-5-SF), Connor-Davidson Resilience Scale-10 (CD-RISC-10) and Post-Traumatic Growth Inventory-Short Form (PTGI-SF). Out of n = 805 HCWs from a University hospital who responded to a pre-COVID-19 survey, n = 431 were re-assessed after the COVID-19 outbreak. A Confirmatory Factor Analysis (CFA) on the MBI showed adequate fit and good internal consistency only after removal of items 2, 6, 12 and 16. The assumptions of configural and metric longitudinal invariance were met, whereas scalar longitudinal invariance did not hold. CFAs and exploratory bifactor analyses performed using data from the second wave confirmed that the GHQ-12, the PCL-5-SF, the PTGI-SF and the CD-RISC-10 were unidimensional. In conclusion, we found support for a refined version of the MBI. The comparison of mean MBI values in HCWs before and after the pandemic should be interpreted with caution. Keywords: factor structure; health care workers; Maslach Burnout Inventory; General Health Questionnaire; PTSD Checklist for DSM-5; Connor-Davidson Resilience Scale; Post-Traumatic Growth Inventory; mental health; COVID-19; longitudinal study.

1. **Gonzalez-Mendez, R., & Díaz, M. (2021). Volunteers’ compassion fatigue, compassion satisfaction, and post-traumatic growth during the SARS-CoV-2 lockdown in Spain: Self- compassion and self-determination as predictors. *PLOS ONE, 16(9)*, e0256854. https://doi.org/10.1371/journal.pone.0256854** (no PTG scale but thriving)

Abstract: Volunteers have played an important role by supporting essential services that have been overwhelmed during the most critical moments of the SARS-CoV-2 pandemic. Hence, nonprofit organizations may be interested in preventing negative consequences of these volunteers’ exposure to potentially traumatic events. The aim of this cross-sectional study was twofold. First, to examine to what extent self-compassion and self-determination would contribute to differentiating between volunteers with different levels of compassion fatigue, compassion satisfaction, and post-traumatic growth. Second, to identify the best predictors of the most extreme levels of each outcome. Participants were 211 Spanish Red Cross volunteers (60.7% women), who completed a survey. They were separately classified into three groups (low, medium, and high) according to the 33rd and 66th percentile scores on each outcome (compassion fatigue, compassion satisfaction, and post-traumatic growth). Univariate analyses of variance and post-hoc comparisons revealed that self-compassion and self-determination contributed differently to distinguishing between levels of each outcome. Volunteers lowest in compassion fatigue stood out for showing fewer non-compassionate strategies and more mindfulness than the other groups. Moreover, those higher in satisfaction compassion also showed lower use of unhealthy strategies and higher scores in all other predictive variables. Volunteers highest in post-traumatic growth showed higher self-kindness and satisfaction of all psychological needs. Binary logistic regressions allowed for the identification of predictors of belonging to the most extreme groups. The protective factors may be useful to guide volunteers’ self-care and help them thrive in the face of critical service demands.

1. **Gul, H., Ehsan, N., Iqbal, N., & Hassan, B. (2023). Illness Perception, Social Isolation, Psychological Distress, and Posttraumatic Growth in the Aftermath of COVID-19. *Pakistan Journal of Psychological Research*, *38*(*2*), 309–327.** [**https://doi.org/10.33824/pjpr.2023.38.2.19**](https://doi.org/10.33824/pjpr.2023.38.2.19)

Abstract: perception with posttraumatic growth and psychological distress among coronavirus affected individuals along with the moderating role of social support. Cross-sectional research design was employed for the present study. The sample consisted of 300 individuals affected by COVID-19 and later recovered. For data collection, the major areas of Chakwal were selected. Kessler Psychological Distress Scale (K10; Kessler, 2002) Illness Perception Scale (Moss-Morris, 2002), Interpersonal Support Evaluation List (Cohen & Hoberman, 1983), Social Connectedness Scale-Revised (Lee & Robbins, 1995), and Posttraumatic Growth Inventory (Tedeschi & Calhoun, 1996) were used to measure the study variables. The findings of the present study indicated that social isolation has a significant positive correlation with posttraumatic growth; however, it has nonsignificant correlation with psychological distress. Moreover, illness perception has a significant positive correlation with psychological distress whereas a nonsignificant correlation with posttraumatic growth. Similarly, illness perception positively predicted psychological distress while negatively predicted posttraumatic growth. Where social isolation positively predicted posttraumatic growth, social support did not significantly moderate between the study variables. The finding of the study shed light on the positive aspect of COVID-19 as observing social isolation during the disease positively predicts posttraumatic growth among the patients.

1. **Jian, Y., Hu, T., Zong, Y. et al. (2022). Relationship between post-traumatic disorder and posttraumatic growth in COVID-19 home-confined adolescents: The moderating role of self-efficacy. *Curr Psychol.*** [**https://doi.org/10.1007/s12144-021-02515-8**](https://doi.org/10.1007/s12144-021-02515-8)

(no multiv)

Abstract: Although the COVID-19 pandemic has been traumatogenic for some people, posttraumatic growth (PTG) outcomes have also been observed. This study examined the PTG in adolescents and the moderating effect of self-efficacy on post-traumatic stress disorder (PTSD) symptoms and PTG. An online questionnaire was conducted on 2090 adolescent Chinese students to measure COVID-19 related exposure, self-efficacy, PTSD, and PTG. PTG prevalence was found in 20.6% of the sample, with the relationship between PTSD and PTG being found to be a reverse U-shaped curve. Objective exposure factors were found to be closely associated with PTSD symptoms but not with PTG. Similarly, subjective feelings of extreme fear were significantly associated with PTSD symptoms but not with PTG. Self-efficacy was found to be positively correlated with PTG (r = 0.551) and to moderate the relationship between PTSD and PTG. For those with low self-efficacy, the higher the PTSD, the higher the PTG, and for those with high self-efficacy, the higher the PTSD, the lower the PTG. As an improved sense of self-efficacy in adolescents could promote positive psychological transformations, these results could assist in identifying self-efficacy levels and providing guidance for targeted psychological interventions to promote positive growth.

1. **Jin, M., Zhang, X., He, H., Zeng, L., Yuan, Z., Xie, W., Tang, P., & Wang, J. (2022). Psychological Symptoms and Posttraumatic Growth Among the General Population in Wuhan, China During the COVID-19 Pandemic: A Cross-Sectional Study. *Journal of Psychosocial Nursing and Mental Health Services, 60(4)*, 39–46.** [**https://doi.org/10.3928/02793695-20211118-03**](https://doi.org/10.3928/02793695-20211118-03)(no ES)

Abstract: The aim of the current study was to investigate psychological symptoms and post-traumatic growth (PTG) among the general population in Wuhan, China during the coronavirus disease 2019 (COVID-19) pandemic. An online survey was conducted using convenience sampling. Participants were invited to fill out this questionnaire, which included information on sociodemographic characteristics and other survey objectives. The Psychological Questionnaire for Emergent Events of Public Health (PQEEPH) and the Chinese version of the Posttraumatic Growth Inventory (PTGI) were used. The prevalence of depression, neurasthenia, fear, obsessive-anxiety, and hypochondriasis among 311 participants were 61.1%, 69.8%, 97.8%, 57.2%, and 45%, respectively. Results indicated that a substantial proportion of the general population may have experienced psychological symptoms as well as PTG, due to the COVID-19 pandemic. Findings demonstrate the importance of developing targeted psychological interventions for those at risk for mental health symptoms. [Journal of Psychosocial Nursing and Mental Health Services, 60(4), 39–46.]

1. **Kalaitzaki, Argyroula. (2021). “Posttraumatic symptoms, posttraumatic growth, and internal resources among the general population in Greece: A nation-wide survey amid the first COVID-19 lockdown.” International journal of psychology : *Journal international de psychologie, 56(5),* 766-771. doi:10.1002/ijop.12750** (no multiv, no ES)

Abstract: Scarce and inconclusive evidence exists on the mental health consequences of the COVID‐19 lockdown. This study examined the psychological impact of the lockdown in Greece, resilience levels, use of coping strategies, and identified high‐risk groups. A sample of 1661 participants (mean age = 39.5, SD = 12.2; 75.5% females) completed a web‐based survey, which was distributed through social networking sites, webpages, and personal contacts. Posttraumatic symptoms, posttraumatic growth, resilience, and coping strategies were assessed. Different population subgroups suffered the impact of lockdown disproportionately. Healthcare workers, females, younger, less educated, and those living alone reported higher rates of posttraumatic stress symptoms. Females achieved more posttraumatic growth and were using coping strategies more frequently than men. Men, older, healthcare workers, and those with a partner were more resilient. Interventions need to be developed to target personal resources, protect vulnerable populations, facilitate posttraumatic growth, and ameliorate wellbeing and quality of life.\

1. **Kalaitzaki, A., Tsouvelas, G., & Tamiolaki, A. (2022). Perceived posttraumatic growth and its psychosocial predictors during two consecutive COVID-19 lockdowns. *International Journal of Stress Management.*** [**https://doi.org/10.1037/str0000273**](https://doi.org/10.1037/str0000273)

Abstract: This study seeks to expand previous research by examining (a) the prevalence rates of posttraumatic growth (PTG) and its potential predictors (posttraumatic stress symptoms [PTSS], perceived stress, adaptive coping strategies, social support) during the first and second lockdown in the general population of Greece, and (b) the mediating role of the stress indicators (PTSS/perceived stress) in the relationship between positive reframing and PTG. A sample of 1,361 participants (1.009 in the first lockdown and 352 in the second lockdown) completed the Posttraumatic Stress Disorder Checklist for DSM-5 (PCL-5), The Perceived Stress Scale (PSS-10), the Posttraumatic Growth Inventory, the Brief Coping Orientation to Problems Experienced Inventory and the ENRICHD Social Support Instrument (ESSI). Moderate levels of PTG were found during both lockdowns. PTG did not significantly increase during the second lockdown. PTG was associated with PTSS during the first lockdown and with perceived stress during the second one; these two stress indicators partially mediated the positive reframing—PTG relationship in the first and second lockdown, respectively. Both adaptive and maladaptive coping strategies predicted PTG during the first lockdown, whereas only adaptive coping strategies predicted PTG during the second lockdown. Perceived social support, emotional during the first lockdown and instrumental during the second one, predicted PTG during the two lockdowns, respectively. The results of this study may enhance our understanding of PTG and its predictor to inform the design of interventions moving beyond growth cognitions into growth actions.

1. **Koliouli, Flora, and Lissy Canellopoulos. (2021). “Dispositional optimism, stress, post-traumatic stress disorder and post-traumatic growth in Greek general population facing the COVID-19 crisis.” *European Journal of Trauma & Dissociation, 5(2)*,100209. doi:10.1016/j.ejtd.2021.100209** (No multiv, no ES )

Abstract: The aim of this study is to explore psychological and mental health implications of social distancing and lockdown, in Greece in order to gain a better understanding of the COVID-19 crisis. For the purposes of this article, quantitative measures are used: the Greek versions of “Life Orientation Scale-Revised” (LOT-R) (Lyrakos, Damigos, Mavreas, Georgia, & Dimoliatis, 2010) to investigate the presence of dispositional optimism tendencies, “Impact of Event scale” (Mystakidou, Tsilika, Parpa, Galanos, & Vlahos, 2007) to assess the traumatic evaluation of the current events, “Perceived Stress Scale” (Andreou et al., 2011) to measure the stress levels amongst population, and “Posttraumatic Growth Inventory” (Mystakidou, Tsilika, Parpa, Galanos, & Vlahos, 2008) to examine positive aspects of the situation, are used. Questionnaires were distributed online a month after social distancing measures and three weeks following lockdown. The survey is addressed to general adult population and data collection lasted until the end of curfew (May 4th 2020). Hundred and sixty-seven (N = 167) participants completed the survey. Main results show that women obtain higher scores than men on the Impact Event Scale and they identify social distancing and curfew as traumatic events. However, men exhibit higher levels of Posttraumatic growth comparing to women, as to subscales “life appreciation” and “spirituality”. Stress and posttraumatic stress are highly correlated to PTG and enable its development in the context of COVID-19. Implications for research and practice will be recommended.

1. **Lau, B. H. P., Chan, C. L. W., & Ng, S. M. (2021). Post-traumatic growth in the first COVID outbreak in Hong Kong. *Frontiers.* https://www.frontiersin.org/articles/10.3389/fpsyg.2021.675132/full** (Path model)

Abstract: Post-traumatic growth (PTG) emerges from highly stressful situations. The coronavirus (COVID) pandemic may qualify as one. This study investigated the PTG among Hong Kong citizens during the first outbreak in spring 2020, shortly after a large-scale social movement subsided. A longitudinal online survey was launched during the peak (Time 1) and the palliation (Time 2) of the outbreak. Among the 327 participants who completed both waves, 28.4% exhibited probable post-traumatic stress disorder (PTSD) in Time 1, while 18.0% reported significant PTG in at least one domain in Time 2. The interaction between the sense of coherence (SOC) and post-traumatic stress mediated the relationship between Time 1 perceived outbreak severity and Time 2 PTG, such that PTG was more likely among participants with higher post-traumatic stress and SOC. PTG was also associated with a weaker contingency between Time 1 and Time 2 perceived outbreak severity. Echoing the transformational model, our findings show that both experienced stress and coping resources are essential for PTG to emerge. We also demonstrated how PTG might lead to more flexible risk perceptions according to the development of the outbreak.

1. **Lewis, C., Lewis, K., Edwards, B., Evison, C., John, A., Pearce, H., Raisanen, L., Richards, N., Roberts, A., Jones, I., & Bisson, J. I. (2022). Posttraumatic growth related to the COVID-19 pandemic among individuals with lived experience of psychiatric disorder. *Journal of traumatic stress, 35(6)*, 1756–1768. https://doi.org/10.1002/jts.22884**

(Complete case analyses)

Abstract: Although the COVID-19 pandemic has been shown to be detrimental to mental health, it may hold a parallel potential for positive change. Little is known about posttraumatic growth (PTG) as a potential outcome for individuals with lived experience of psychiatric disorders following trauma exposure, especially in the context of the COVID-19 pandemic. Participants were 1,424 adults with lived experience of a psychiatric disorder who took part in a longitudinal study of mental health during the COVID-19 pandemic conducted by the National Centre for Mental Health. PTG was measured using the Posttraumatic Growth Inventory-Short Form (PTGI-SF). Factors hypothesized to be associated with PTG were investigated using linear regression. The mean participant PTGI score was 12.64 (SD = 11.01). On average, participants reported the highest scores on items related to appreciation of life and lowest on those related to spiritual change subscale. We found the strongest evidence of associations between higher levels of PTG and higher scores on assessment items related to perceived social support, B = 2.86; perceptions of the pandemic as traumatic, B = 4.89; and higher psychological well-being, B = 0.40. Taken together, we did not observe evidence of widespread PTG related to the COVID-19 pandemic among individuals with lived experiences of psychiatric disorders.

1. **Lyu, Y., Yu, Y., Chen, S., Lu, S., & Ni, S. (2021). Positive functioning at work during COVID‐19: Posttraumatic growth, resilience, and emotional exhaustion in Chinese frontline healthcare workers. *Applied Psychology: Health and Well-Being.* https://doi.org/10.1111/aphw.12276** (no paper)

Abstract: Research on traumatic events often emphasizes the importance of posttraumatic growth (PTG) and resilience, yet few studies have explored their trends and their relationship throughout the progression of traumatic events. This paper explores the longitudinal relationship between resilience and PTG, as well as the role of job burnout in this relationship, among frontline healthcare workers during the COVID-19 pandemic, who have been exposed to high-risk work environments over extraordinarily long workdays. In Study 1, 134 Chinese frontline healthcare workers completed a three-wave survey (Time 1, Time 2, and Time 3) in February–May 2020. In Study 2, 401 frontline healthcare workers completed a cross-sectional survey. The cross-lagged analysis suggested that resilience at Time 1 positively predicted PTG at Time 2, which in turn positively predicted resilience at Time 3. PTG at Time 1 also positively predicted resilience at Time 2 (Study 1). However, job burnout was negatively related to both resilience and PTG; in particular, emotional exhaustion moderated the link between PTG and resilience (Study 2). Our findings support a cycle of reinforcement between resilience and PTG over time. The positive effect of PTG on resilience, however, is undermined by emotional exhaustion. Implications for future intervention research and workplace support are discussed.

1. **Mo, Y.,Tao, P., Liu, G., Chen, L., Li, G., Lu, S., Zhang, G., Liang, R., & Huang, H. (2022). Post-Traumatic Growth of Nurses Who Faced the COVID-19 Epidemic and Its Correlation With Professional Self-Identity and Social Support. *Frontiers in psychiatry, 12*, 562938. https://doi.org/10.3389/fpsyt.2021.562938**

Abstract: To investigate post-traumatic growth (PTG) and analyze its correlation with professional self-identity and social support in Chinese nurses who faced the coronavirus disease 2019 (COVID-19) epidemic. A cross-sectional descriptive design was used in this study. An online questionnaire was completed by 266 nurses who faced the COVID-19 emergency in Hubei Province, China. The Post-traumatic Growth Inventory (PTGI), Professional Self-identity Scale, and Perceived Social Support Scale were used to assess the level of PTG, professional self-identity, and social support. Descriptive, univariate analysis and multiple regression analyses were used in exploring related influencing factors. Participants' mean scores were 96.26 (SD = 21.57) for PTG, 115.30 (SD = 20.82) for professional self-identification, and 66.27 (SD = 12.90) for social support. Multiple regression analysis showed that nurses from other provinces moving to support Hubei Province, professional self-identity, and social support were the main factors affecting nurse stress (p = 0.014, < 0.001, and 0.017, respectively). Professional self-identity and social support were positively correlated with PTG (r = 0.720 and 0.620, respectively).

1. **Northfield, E.-L., & Johnston, K. L. (2022). “I get by with a little help from my friends”: Posttraumatic growth in the COVID-19 pandemic. *Traumatology, 28(1)*, 195–201.**

Abstract: The aftermath of a trauma may be commonly associated with negative outcomes; however, these experiences can also lead to positive personal changes, including posttraumatic growth (PTG). Little research has explored PTG in relation to chronic or vicarious trauma, nor with regard to the social context. The current study investigated the role of perceived social support in moderating psychological distress and PTG during the COVID-19 pandemic. Cross-sectional data were collected online using CloudResearch from 296 adults residing in the United States of America during August 2020. A strong positive relationship was found between impact of trauma and PTG (r = .54; p < .001). Moderated multiple regression indicated psychological distress, perceived social support, age, gender, ethnicity, and education accounted for 39% of the variance in PTG; however, a significant positive relationship was only found between social support and PTG. The interaction between social support and psychological distress was significant (p = .021), with slope indicating the relationship between distress and PTG is strengthened with increasing social support. Contrary to expectations, this study found a significant relationship existed between PTG and perceived support from friends (β = .23; p = .001) and family (β = .14, p = .044), but not significant others. Age also predicted PTG, suggesting younger people may experience higher growth, and significant mean differences were found between Caucasian and African American participants who reported higher levels of PTG. These findings have potential implications for improving mental health outcomes during this challenging and novel period of our history.

1. **Park, S.-R., & Im, S.-Y. (2021). Is posttraumatic growth helpful in overcoming mental health disorders due to COVID-19?: The moderating effect of posttraumatic growth in the relationship between covid-19 and psychological health. *Frontiers.*  https://www.frontiersin.org/articles/10.3389/fpsyg.2021.773326/full** (no multiv, no ES)

Abstract: The aim of this study was to investigate the effects of restrictions and concerns related to the coronavirus disease 2019 (COVID-19) on depression, anxiety, and committed action, and examine whether posttraumatic growth (PTG) serves as a protective factor for mental health. In particular, this study evaluated the moderating effects of PTG on the changes in levels of anxiety, depression, and committed action according to changes in COVID-19-related restrictions and concerns using a short-term longitudinal design. The Posttraumatic Growth Inventory was administered to 100 adults with significant traumatic experience living in the Republic of Korea, and the participants were asked to complete diary questionnaires on anxiety, depression, committed action, and restrictions and concerns pertaining to COVID-19. The results showed that anxiety and depression decreased, and committed action increased with an increase in PTG. These results highlight a complex relationship between restrictions and concerns related to COVID-19 and psychological health; based on the results, we discussed the positive impact of PTG on psychological health.

1. **Pietrzak, R. H., Tsai, J., & Southwick, S. M. (2021). Association of Symptoms of Posttraumatic Stress Disorder With Posttraumatic Psychological Growth Among US Veterans During the COVID-19 Pandemic. *JAMA Network Open, 4(4)*, e214972.** [**https://doi.org/10.1001/jamanetworkopen.2021.4972**](https://doi.org/10.1001/jamanetworkopen.2021.4972)

Abstract: This survey study uses self-reported data from the 2019-2020 National Health and Resilience in Veterans Study to assess the association of symptoms of posttraumatic stress disorder (PTSD) with posttraumatic psychological growth among US veterans during the COVID-19 pandemic.

1. **Prieto-Ursúa, María, and Rafael Jódar. (2020). “Finding Meaning in Hell. The Role of Meaning, Religiosity and Spirituality in Posttraumatic Growth During the Coronavirus Crisis in Spain.” *Frontiers in psychology (11*) 567836 doi:10.3389/fpsyg.2020.567836** (regression)

Abstract: Coronavirus has blighted our world, hitting some countries harder than others. Morbidity and mortality rates make Madrid one of the worst affected places so far in the wake of the coronavirus. The aim of this study was to analyze the presence of post-traumatic growth during the coronavirus crisis and to understand the contribution of meaning, religiosity, and spirituality to such growth; 1,492 people completed the questionnaire; N = 1,091 residents in Madrid were selected for the study. We assessed the personal experience of COVID-19, the Spirituality, Religiosity, Meaning trough Purpose in Life-10 test, and Posttraumatic Growth (Community Post-Traumatic Growth Scale). Results showed significant differences for all measures of growth, with higher values in women. Sex and direct impact of COVID-19 accounted for 4.4% of the variance of growth. The different dimensions of meaning contribute differently to growth. Only religiosity was associated with total growth when meaning was included in the model. This same pattern of results is obtained in models predicting interpersonal and social growth. However, in predicting personal growth, it is spirituality that predicts this type of growth once meaning has been previously controlled for, while religiosity fails to reach a statistically significant level. Our results reflect the interest in maintaining the distinction between spirituality and religiosity, their different roles in traumatic growth and the different dimensions on which each has an effect. Finally, it confirms the importance of meaning in post-traumatic growth, especially the dimension of life goals and purposes.

1. **Stallard, Paul, et al (2021.)“Post-Traumatic Growth during the COVID-19 Pandemic in Carers of Children in Portugal and the UK: Cross-Sectional Online Survey.” *BJPsych Open, 7(1) 37*., doi:10.1192/bjo.2021.1**. (Single item for change no PTG)

Abstract: Although the negative effects of the COVID-19 pandemic on mental health have attracted interest, little attention has focused on its positive effects and possible post-traumatic growth. To assess anxiety, well-being and post-traumatic growth in carers of children aged 6–16 years in Portugal and the UK. A cross-sectional online survey of volunteers conducted at the peak of the first wave of COVID-19 during lockdown (1 May to 27 June 2020). A total of 385 caregivers (Portuguese, n = 185; UK, n = 200), predominantly mothers (n = 341, 88.6%), completed the survey. The majority were working exclusively from home (n = 271, 70.4%), almost half reported a reduction in income (n = 174, 45.2%), most children were home taught (n = 358, 93%), and 75 (19.5%) identified a family member with suspected or confirmed COVID-19 infection. In total, 341 caregivers (88.6%) identified positives arising from COVID-19, most commonly related to the post-traumatic growth domains of improved relationships, a greater appreciation of life, discovering and embracing new possibilities, and positive spiritual change. A comparison of those who did (n = 341) and did not (n = 34) report any positives found a significant difference in well-being scores (t373 = 2.24, P = 0.025) but not in anxiety scores (t373 = 0.75, P = 0.45). Despite experiencing considerable adversity, examples of post-traumatic growth during the lockdown were common. Although the voluntary online nature of our survey is a limitation, our findings suggest that further research exploring post-traumatic growth following pandemics is warranted.

1. **Ulset, Vidar Sandsaunet, and Tilmann von Soest. (2022). “Posttraumatic growth during the COVID-19 lockdown: A large-scale population-based study among Norwegian adolescents.” *Journal of traumatic stress 35(3),* 941-954. doi:10.1002/jts.22801**

Abstract: The negative consequences of the COVID-19 lockdown during the spring of 2020 have been documented. However, adolescents may also have experienced positive personal and interrelational changes. This was the first study to examine the prevalence of posttraumatic growth (PTG) during the lockdown. We additionally explored how potential risk and protective factors, as well as experiences with the pandemic, were related to PTG and whether these associations were moderated by mental health resources and social support. We used data from a representative survey of 12,686 junior and senior high school students from Oslo, Norway, conducted during the lockdown (37% response rate, 56.4% girls). A short version of the Posttraumatic Growth Inventory was used to assess growth relative to personal strength, relationships with others, and appreciation of life. Several potential predictors in the domains of mental health, social relationships, experiences during the pandemic, and sociodemographic background factors were examined. Results from multiple regression analyses showed that satisfaction with life, parental care, worries about the pandemic, and immigrant status were the most prominent predictors of PTG, βs = .14–.22, p < .001. Moderation analyses indicated a complex interplay between predictors of PTG by showing that good mental health was associated with higher degrees of PTG only in groups typically considered to be at higher risk of adverse outcomes. The findings provide information regarding who would profit from additional help to reinterpret the dramatic events during the lockdown to facilitate growth.

1. **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. https://doi.org/10.1007/s10902-020-00352-3**

Abstract: Given the need to understand both the negative and positive psychological consequences of the current global COVID-19 pandemic (Brewin et al. in Perspectives in Public Health https://doi.org/10.1177/1757913920957365 2020), the aim of this study was to test a cognitive model of post-traumatic symptoms (PTS) and post-traumatic growth (PTG) during confinement caused by the SARS-COV-2 epidemic. In line with cognitive models of trauma elaboration (Park in Psychological Bulletin https://doi.org/10.1037/a0018301), we included in our model some beliefs associated to the world (e.g., primal beliefs about a good world), to the self (e.g., death anxiety or orientation toward the future) and to others (e.g., suspiciousness or identification with humanity). To evaluate the explanatory model, a national representative sample of adults between the ages of 18 and 75 (N = 1951) was surveyed between 7th and 13th April, 2020, in the middle of a strict 7-week national confinement. Structural equation modelling yielded a very similar model to the one initially specified. The results highlight the role of both negative and positive core beliefs, which are pertinent to the current pandemic threat, in the appearance of PTS and PTG, respectively. In short, primal beliefs about a good world, openness to the future and identification with humanity were associated with PTG; while suspiciousness, intolerance of uncertainty, anxiety about death and also identification with humanity were associated with PTS and consequent impairment. This is an innovative study of different pathways to traumatic responses and growth during a pandemic. Future research is needed to replicate its findings.

1. **Willey, Brea, et al. (2022). “Racial and Socioeconomic Status Differences in Stress, Posttraumatic Growth, and Mental Health in an Older Adult Cohort during the COVID-19 Pandemic.” *EClinicalMedicine (45)*, p. 101343, https://doi.org/10.1016/j.eclinm.2022.101343.**

Abstract: The COVID-19 pandemic has disproportionately impacted the most vulnerable and widened the health disparity gap in both physical and mental well-being. Consequentially, it is vital to understand how to best support elderly individuals, particularly Black Americans and people of low socioeconomic status, in navigating stressful situations during the COVID-19 pandemic and beyond. The aim of this study was to investigate perceived levels of stress, posttraumatic growth, coping strategies, socioeconomic status, and mental health between Black and non-Hispanic, White older adults, the majority over the age of 70. Additionally, we investigated which variables, if any, were associated with posttraumatic growth in these populations. One hundred seventy-six community dwelling older adults (mean age = 76.30 ±8.94), part of two observational studies (The Harvard Aging Brain Study and Instrumental Activities of Daily Living Study) in Massachusetts, US, were included in this cross-sectional study. The survey, conducted from March 23, 2021 to May 13, 2021, measured perceived stress, behavioral coping strategies, posttraumatic growth, and mental health during the COVID-19 pandemic. We investigated associations with post-traumatic growth in a multiple linear regression model and examined their differences by race with t-tests, Wilcoxon rank-sum tests, and Fisher's exact tests. A second multiple linear regression model was used to examine which coping strategies were associated with posttraumatic growth. Our results indicated no significant difference between the groups in terms of mental health or stress. However, Black participants showed significantly greater posttraumatic growth compared to non-Hispanic, White participants. Additionally, the coping strategies of religion and positive reframing were found to be significantly associated with posttraumatic growth. Furthermore, even with the effects of stress and coping strategies controlled for, race remained significantly associated with posttraumatic growth. The COVID-19 pandemic has differentially impacted Black and non-Hispanic White older adults. These results may help encourage further analysis on geriatric psychiatry as well as understanding how cultural values and adaptations impact posttraumatic growth and mental health in diverse populations.

1. **Yeung, N. C.-Y., Wong, E. L.-Y., Cheung, A. W.-L., Leung, C. S.-Y., Yeoh, E.-K., & Wong, S. Y.-S. (2022). Finding the positives from the COVID-19 pandemic: factors associated with posttraumatic growth among nurses in Hong Kong. *European Journal of Psychotraumatology, 13(1)*. https://doi.org/10.1080/20008198.2021.2005346**

Abstract: Due to active involvement with patients for COVID-19 treatments, nurses are susceptible to adverse psychological outcomes amid the COVID-19 pandemic. Despite the distress, studies have suggested that nurses are able to experience positive changes (i.e. posttraumatic growth; PTG) during the pandemic. Research on other populations has also indicated that COVID-19-specific worries and work-related coping resources are associated with people’s positive changes during the pandemic.

1. **Yıldız, E. (2021). Posttraumatic growth and positive determinants in nursing students after COVID‐19 alarm status: A descriptive cross‐sectional study. *Perspectives in Psychiatric Care*. https://doi.org/10.1111/ppc.12761**

Abstract: To determine the relationship between posttraumatic growth (PTG), psychological flexibility, and psychological resilience of nursing students after the COVID-19 alarm status. This descriptive cross-sectional study was conducted with nursing students (N = 292) studying at a nursing school of a university. The data collection instruments included a form on descriptive variables, and the PTG, psychological flexibility, and psychological resilience scales. Descriptive statistics, independent-samples t test, ANOVA, correlation, simple, and hierarchical linear regression analyses were used to analyze the data. The mean scores regarding psychological flexibility, psychological resilience, and PTG were 27.56 ± 11.06, 18.10 ± 5.75, and 63.49 ± 20.64, respectively. While psychological flexibility explained 36.7% of the total variance in psychological resilience, the predictive effect of seven descriptive variables, including psychological flexibility and psychological resilience, on PTG was determined as 13.4%. PTG, psychological flexibility, and psychological resilience may help nursing students prepare for their transition to the profession.

1. **Zhai, Hong-Kun et al. (2021). “Emotional Creativity Improves Posttraumatic Growth and Mental Health During the COVID-19 Pandemic.” *Frontiers in psycholog (12)* 600798. doi:10.3389/fpsyg.2021.600798**

Abstract: Emotional creativity refers to a set of cognitive abilities and personality traits related to the originality of emotional experience and expression. Previous studies have found that emotional creativity can positively predict posttraumatic growth and mental health. The outbreak of coronavirus disease 2019 (COVID-19) has posed great challenges to people’s daily lives and their mental health status. Therefore, this study aims to address the following two questions: whether emotional creativity can improve posttraumatic growth and mental health during the COVID-19 pandemic and how it works. To do this, a multiple mediation model has been proposed, which supposes that emotional creativity is associated with posttraumatic growth and mental health through perceived social support and regulatory emotional self-efficacy. The study involved 423 participants from multiple regions with different COVID-19 involvement levels. Participants were asked to complete a questionnaire with six parts, which included Emotional Creativity Inventory (ECI), Regulatory Emotional Self-Efficacy Scale (RES), Stress-Related Growth Scale-Short Form (SRGS-SF), Multidimensional Scale of Perceived Social Support scale (MSPSS), Brief Symptom Inventory-18 scale (BSI-18), and COVID-19-related life events questionnaire. Path analysis used to examine the mediation model indicated that under the control of COVID-19-related life events and age, perceived social support mediated a positive association between emotional creativity and posttraumatic growth as well as a negative association between emotional creativity and all mental health problems, including somatization, depression, and anxiety. Regulatory emotional self-efficacy mediates the association between emotional creativity and posttraumatic growth, emotional creativity and anxiety, and emotional creativity and depression. The results suggest that emotional creativity plays an important role in coping with stressful events related to COVID-19. Furthermore, these results might provide a better understanding of the possible paths through which emotional creativity is related to psychological outcomes, such as mental health and posttraumatic growth.

1. **Zhang, X. T., Shi, S. S., Ren, Y. Q., & Wang, L. (2021). The Traumatic Experience of Clinical Nurses During the COVID-19 Pandemic: Which Factors are Related to Post-Traumatic Growth? *Risk Management and Healthcare Policy*, (*14)*, 2145–2151.** <https://doi.org/10.2147/rmhp.s307294>

Abstract: Post-traumatic growth (PTG) is a positive result of fighting against traumatic events. This study aimed to investigate the current status of PTG of clinical nurses and analyze its influencing factors. A total of 1790 nurses participated in the study and completed the questionnaire. Demographic data and related scales of PTG, post-traumatic stress disorder, coping style, social support, and self-efficacy were collected online. Through univariate analysis and multiple linear regression analysis, the related influencing factors were studied. The total score of PTG of 1790 nurses was 67.17 ± 14.79. The analysis revealed that good social support and self-efficacy were important factors to improve the level of PTG of clinical nurses, while bad psychological state and working for many years were the negative factors of PTG. Good social support and self-efficacy can help clinical nurses cope with the novel coronavirus disease 2019 pandemic and accept the disease’s challenges. If these factors can be considered in clinical practice, this will help promote clinical nurses’ mental health.

1. **Zhou, Y., MacGeorge, E. L., & Myrick, J. G. (2020). Mental Health and Its Predictors during the Early Months of the COVID-19 Pandemic Experience in the United States. *International Journal of Environmental Research and Public Health, 17(17),* 6315. https://doi.org/10.3390/ijerph17176315**

Abstract: To date, there has been relatively little published research on the mental health impacts of COVID-19 for the general public at the beginning of the U.S.’ experience of the pandemic, or the factors associated with stress, anxiety, depression, and post-traumatic growth during this time. The current study provides a longitudinal examination of the predictors of self-reported stress, anxiety, depression, and post-traumatic growth for U.S. residents between April and May, 2020, including the influence of demographic, psychosocial, and behavioral factors on these outcomes. The findings indicate that, generally, the early months of the U.S. COVID-19 experience were characterized by a modest negative impact on mental health. Younger adults, people with pre-existing health conditions, and those experiencing greater perceived risk, higher levels of rumination, higher levels of co-rumination, greater social strain, or less social support reported worse mental health. Positive mental health was associated with the adoption of coping strategies, especially those that were forward-looking, and with greater adherence to national health-protection guidelines. The findings are discussed with regard to the current status of health-protective measures and mental health in the U.S., especially as ghese impact future management of the on-going pandemic. Keywords: COVID-19; mental health; Depression, Anxiety and Stress Scale (DASS-21); posttraumatic growth; longitudinal design.