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. **Aggar, C., Samios, C., Penman, O., Whiteing, N., Massey, D., Rafferty, R., Bowen, K., & Stephens, A. (2022). The impact of COVID-19 pandemic-related stress experienced by Australian nurses. *International journal of mental health nursing*, 31(1), 91–103.** [**https://doi.org/10.1111/inm.12938**](https://doi.org/10.1111/inm.12938)

Abstract: Globally, the impact of COVID-19 on healthcare workers' mental health has been a major focus of recent research. However, Australian research involving nurses, particularly across the acute care sector, is limited. This cross-sectional research aimed to explore the impact of pandemic-related stress on psychological adjustment outcomes and potential protective factors for nurses (n = 767) working in the Australian acute care sector during the COVID-19 pandemic. Nurses completed an online questionnaire with psychometrically validated measures of pandemic-related stress, psychological adjustment outcomes (depression, anxiety, and subjective well-being), and protective factors (posttraumatic growth and self-compassion). Descriptive analyses revealed that pandemic-related stress was reported by 17.7% of the participants. Psychological adjustment outcome scores above normal for depression (27.5%) and anxiety (22.0%) were found, and 36.4% of the participants reported poor subjective well-being. Regression analyses suggest that pandemic-related stress predicted greater depression (B = 0.32, SE = 0.02, 95% confidence interval [0.28, 0.35]) and anxiety (B = 0.26, SE = 0.01, 95% confidence interval [0.24, 0.29]) and less subjective well-being (B = -0.14, SE = 0.01, 95% confidence interval [-0.16, -0.12]). Self-compassion weakened the relationship between pandemic-related stress and greater depression, however, exacerbated the relationship between pandemic-related stress and less subjective well-being. Posttraumatic growth reduced the negative relationship between pandemic-related stress and psychological adjustment outcomes. These findings will inform strategies to facilitate psychological resources that support nurses' psychological adjustment, enabling better pandemic preparedness at both an individual and organizational level.

1. **Akdağ, S., Korkmaz, B., Tiftik, T., & Uzer, T. (2023). Ruminative reminiscence predicts COVID-related stress symptoms while reflective reminiscence and social reminiscence predict post-COVID growth. *Current psychology* (New Brunswick, N.J.), 1–15. Advance online publication.** [**https://doi.org/10.1007/s12144-023-04750-7**](https://doi.org/10.1007/s12144-023-04750-7)

Abstract:Reminiscence refers to the process or act of thinking or telling about past experiences. Few studies address the relationship between reminiscence functions and trauma-related cognitions and emotions. This study aimed to expand the previous literature by investigating the frequency of different types of reminiscence during the COVID-19 pandemic and their relations to the likelihood of developing post-traumatic growth (PTG) and post-traumatic stress disorder (PTSD), using an adult sample. Altogether, 184 participants (Mage = 30.38; SD = 10.95) completed the Reminiscence Functions Scale to report the purposes for which they shared their experiences during the first two waves of COVID-19. They also responded to the COVID-Transitional Impact Scale, Post-Traumatic Stress Disorder Checklist for DSM-5, Post Traumatic Growth Inventory, Revised Form of The Multidimensional Scale of Perceived Social Support, and Connor-Davidson Resilience Scale, when considering the first two waves of COVID-19. The results demonstrated that pro-social reminiscence and self-positive reminiscence were significantly more common than self-negative reminiscence. Yet, these differences disappeared when the presence of COVID virus was controlled. Pro-social and self-positive reminiscence significantly predicted PTG beyond demographic characteristics, COVID-19 impact, social support, and resilience. In contrast, only self-negative reminiscence predicted PTSD beyond COVID-19 impact and demographic characteristics. Furthermore, serial mediation analysis indicated that pro-social reminiscence predicted PTG via its association with perceived social support and resilience. Our findings suggest the benefit of using reminiscence therapy-type interventions to facilitate PTG and reduce PTSD after large-scale disasters like pandemics.

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**

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. **Atay, N., Sahin-Bayindir, G., Buzlu, S., Koç, K., & Kuyuldar, Y. (2023). The relationship between posttraumatic growth and psychological resilience of nurses working at the pandemic clinics. *International journal of nursing knowledge*, 34(3), 226–235.** [**https://doi.org/10.1111/2047-3095.12397**](https://doi.org/10.1111/2047-3095.12397)

Abstract: This study aimed to determine posttraumatic growth and psychological resilience and understand the relationship between posttraumatic growth and psychological resilience in frontline nurses. Methods: This study was conducted on 263 nurses working at the pandemic clinics of a hospital of a healthcare group in Istanbul and a public hospital in Bursa between June 20 and September 01, 2020. Data were collected online to avoid the risk of infection using the personal information form, the Connor-Davidson resilience scale and the posttraumatic growth inventory. Findings: There is a significant relationship between posttraumatic growth and psychological resilience in frontline nurses. Nurses with a master's degree have higher psychological resilience than those with a bachelor's degree. Also, those who are reported that they receive organizational support from the nursing services management have higher psychological resilience and posttraumatic growth scores. Participants who worked for the hospital in Istanbul, those who stayed at hotels, and those who had no communication problems with the healthcare team had statistically significant higher posttraumatic scores and subscale scores than others. Also, those who do not think that they can protect themselves from the virus enough have lower posttraumatic growth than those who think so. Conclusions: Psychological resilience was positively correlated with posttraumatic growth and its subscales.

1. **Azman, N., Nik Jaafar, N. R., Leong Bin Abdullah, M. F. I., Abdul Taib, N. I., Mohamad Kamal, N. A., Abdullah, M. N., Dollah, S. N., & Mohamed Said, M. S. (2023). Stigma and posttraumatic growth among COVID-19 survivors during the first wave of the COVID-19 pandemic in Malaysia: a multicenter cross-sectional study. *Frontiers in psychiatry*, 14, 1152105.** [**https://doi.org/10.3389/fpsyt.2023.1152105**](https://doi.org/10.3389/fpsyt.2023.1152105)

Abstract: Contracting COVID-19 can cause negative and distressing psychological sequelae, but traumatic stressors may also facilitate the development of positive psychological change beyond an individual's previous level of adaptation, known as posttraumatic growth (PTG). As a result, studies have investigated the negative effects of COVID-19 on mental health, but data on PTG among patients who have recovered from COVID-19 remains limited. This study aims to evaluate the level of PTG and its associations with stigma, psychological complications, and sociodemographic factors among COVID-19 patients 6 months post-hospitalization. Method: A cross-sectional online survey of 152 COVID-19 patients was conducted after 6 months of being discharged from Hospital Canselor Tuanku Muhriz, MAEPS Quarantine Center, or Hospital Sungai Buloh, Malaysia. Patients completed a set of questionnaires on sociodemographic and clinical data. The Posttraumatic Growth Inventory (PTGI-SF) was used to assess the level of PTG, the Kessler Psychological Distress (K6) was used to measure the degree of psychological distress, the General Anxiety Disorder-7 (GAD-7) was used to evaluate the severity of anxiety symptoms, the Patient Health Questionnaire (PHQ-9) was used to assess the severity of depression symptoms, and the Explanatory Model Interview Catalog Stigma Scale (EMIC-SS) was used to record the degree of perceived stigma toward COVID-19. Results: The median PTGI SF score of the respondents was 40.0 (Interquartile range 16.0). Multivariable general linear model with bootstrapping (2,000 replications) revealed factors that significantly predicted PTG, which were at the higher level of the perceived stigma score, at 37 (B = 0.367, 95% CI = 0.041 to 0.691, p = 0.026), among the Malay ethnicity (B = 12.767, 95% CI 38 = 7.541 to 17.993, p < 0.001), retirees (B = -12.060, 95% CI = -21.310 to -2.811, p = 0.011), and those with a history of medical illness (B = 4.971, 95% CI = 0.096 to 9.845, p = 0.046). Conclusion: Experiencing stigma contributed to patients' PTG in addition to psychosocial factors such as ethnicity, history of medical illness, and retirement.

1. **Bai, C., Ma, J., Bai, B., & Zhu, S. (2023). How does strength use relate to posttraumatic growth in health care workers during the COVID-19 pandemic? The mediating role of self-efficacy and optimism. *Psychological trauma: theory, research, practice and policy,* 10.1037/tra0001626.** [**https://doi.org/10.1037/tra0001626**](https://doi.org/10.1037/tra0001626)

Abstract: Research on the use of strengths has suggested that it can promote individuals’ psychological health and well-being. This study aimed to examine the relationship between strength use and posttraumatic growth (PTG) in the context of COVID-19 pandemic among health care workers, as well as the mediating role of psychological capital in this relationship. Method: A total of 740 health care workers completed the Strengths Use Scale, the Positive Psychological Capital Scale, and the Posttraumatic Growth Inventory. Descriptive, correlational, and multiple mediation analyses were performed to analyze the data. Results: Participants of 55.9% reported experiencing significant PTG during the COVID-19 pandemic. The study found a significant and positive correlation between strength use, psychological capital, and PTG. In addition, the study found that self-efficacy and optimism, but not hope and resilience, mediated the linkage between strength use and PTG linked to the COVID-19 pandemic. The results also indicated that self-efficacy and optimism had equal importance in the strength use—PTG link. Conclusions: The study concludes that strength use is positively related to PTG in the context of the COVID-19 pandemic through the mediating roles of self-efficacy and optimism.

1. **Bai, C., & Bai, B. (2024). Control beliefs about stress and post-traumatic growth in nurses during the COVID-19 pandemic: The mediating roles of basic psychological needs satisfaction and optimism. *International journal of mental health nursing,* 10.1111/inm.13293. Advance online publication.** [**https://doi.org/10.1111/inm.13293**](https://doi.org/10.1111/inm.13293)

Abstract: The purpose of this study was to examine the relationship between control beliefs about stress and post-traumatic growth among Chinese nurses during the COVID-19 pandemic and to examine the mediating role of basic psychological needs satisfaction and optimism in this relationship. A total of 692 Chinese nurses participated in this online study, who completed the Beliefs about Stress Scale, Post-Traumatic Growth Inventory, Positive Psychological Capital Questionnaire, Basic Psychological Needs Satisfaction Scale and demographic variables between September and October 2020. Results indicate that 48.8% (N = 388) of nurses reported significant post-traumatic growth related to the COVID-19 pandemic. Moreover, control beliefs about stress were positively related to post-traumatic growth (r = 0.38, p < 0.001), basic psychological needs satisfaction (r = 0.44, p < 0.001) and optimism (r = 0.47, p < 0.001). In addition, basic psychological needs satisfaction and optimism were both independent and serial mediators of the relationship between control beliefs about stress and post-traumatic growth. Nurses and hospital administrators should focus on increasing nurses' control beliefs about stress and thereby enhancing their post-traumatic growth after experiencing events such as the COVID-19 pandemic. To support this process, programs should be designed to meet nurses' basic psychological needs and increase their optimism.

1. **Barnicot, K., McCabe, R., Bogosian, A., Papadopoulos, R., Crawford, M., Aitken, P., Christensen, T., Wilson, J., Teague, B., Rana, R., Willis, D., Barclay, R., Chung, A., & Rohricht, F. (2023). Predictors of post-traumatic growth in a sample of United Kingdom mental and community healthcare workers during the COVID-19 pandemic. *International journal of environmental research and public health, 20(4),* 3539. https://doi.org/10.3390/ijerph20043539**

Abstract: Experiences of adversity can generate positive psychological effects alongside negative impacts. Little research to date has evaluated predictors of post-traumatic growth in mental or community healthcare workers during the COVID-19 pandemic. Following a survey of 854 community and mental healthcare staff in the United Kingdom in July to September 2020, multiple linear regression was used to determine the association between hypothesised risk and protective factors (personal, organisational and environmental variables) and total scores on the Post-traumatic Growth Inventory-Short Version. Positive self-reflection activities, black and minority ethnic status, developing new healthcare knowledge and skills, connecting with friends and family, feeling supported by senior management, feeling supported by the UK people, and anxiety about the personal and work-related consequences of COVID-19 each significantly independently predicted greater post-traumatic growth. Working in a clinical role and in mental healthcare or community physical healthcare predicted lower post-traumatic growth. Our research supports the value of taking an organisational growth-focused approach to occupational health during times of adversity, by supporting staff to embrace opportunities for personal growth. Valuing staff's cultural and religious identity and encouraging self-reflective activities, such as mindfulness and meditation, may help to promote post-traumatic growth.

1. **Cardinali, P., Olcese, M., Antichi, L., & Migliorini, L. (2024). Cumulative trauma and perceived community resilience: A serial mediation model. *Journal of community psychology*, 52(1), 276–288.** [**https://doi.org/10.1002/jcop.23097**](https://doi.org/10.1002/jcop.23097)

Abstract: Communities affected by cumulative trauma can experience negative psychological reactions but also posttraumatic growth and community resilience, which promote adaptation and preparation for future traumatic events. This study aims to investigate the mechanisms that mediate the relationship between traumatic events and perceived community resilience. Participants were 118 Italian adults who experienced cumulative trauma and were recruited to complete an online survey. A serial multiple mediation model was estimated to assess whether the impact of the Morandi bridge collapse and posttraumatic growth mediated the relationship between the psychological impact of the Covid-19 pandemic and perceived community resilience. The impact of the collapsed bridge and posttraumatic growth in serial partially mediated the relationship between the impact of the Covid-19 pandemic and perceived community resilience. The impact of cumulative trauma can be considered through an ecological perspective that considers the consequences of these events in relation to community resilience.

1. **Carola, V., Vincenzo, C., Morale, C., Cecchi, V., Rocco, M., & Nicolais, G. (2022). Psychological Health in Intensive Care Unit Health Care Workers after the COVID-19 Pandemic. *Healthcare* (Basel, Switzerland), 10(11), 2201.** [**https://doi.org/10.3390/healthcare10112201**](https://doi.org/10.3390/healthcare10112201)

Abstract: Although the COVID-19 pandemic had an impact on the general population, health care workers (HCWs) constituted one of the groups that were most adversely affected by the associated risks, owing to the significant consequences on their mental health. This study examined these psychological effects on HCWs who cared for COVID-19 patients who were admitted to the intensive care unit in an Italian hospital. Methods: Subjects were administered several self-reported questionnaires: Kessler 10 Psychological Distress Scale (K10), Perceived Stress Scale-10 (PSS), Impact of Event Scale Revised (IES-R), and Post-traumatic Growth Inventory (PTGI), as well as two open-ended questions oriented toward understanding their positive and negative emotional experience and differentiating between two phases of the emergency. Results: Overall, 45% of HCWs showed medium-to-high anxiety/depressive symptoms, whereas 60% presented with medium-to-high levels of perceived stress. In addition, 37% of subjects developed symptoms of PTSD and 50% showed post-traumatic growth in the “appreciation of life” and “new possibilities” dimensions. With regard to the open-ended questions, three themes were identified: quality of workplace relationships, sense of emotional-relational competence, and sense of clinical-technical competence. In addition, two macrocategories of responses were identified in the answers: growth and block. Conclusions: The mental health of HCWs who are involved in the front line of COVID-19 was significantly impacted by this experience, showing high levels of post-traumatic stress and anxiety and depressive symptoms more than 1 year after the emergency began. A qualitative analysis of staff experiences can be a useful guide for structuring interventions and prevention.

1. **Castiglioni, M., Caldiroli, C. L., Procaccia, R., Conte, F., Neimeyer, R. A., Zamin, C., Paladino, A., & Negri, A. (2023). The up-side of the COVID-19 pandemic: Are core belief violation and meaning making associated with post-traumatic growth?. *International journal of environmental research and public health, 20(11),* 5991.** [**https://doi.org/10.3390/ijerph20115991**](https://doi.org/10.3390/ijerph20115991)

Abstract: The negative impact of the COVID-19 pandemic on mental health has been extensively documented, while its possible positive impact on the individual, defined as Post-Traumatic Growth (PTG), has been much less investigated. The present study examines the association between PTG and socio-demographic aspects, pre-pandemic psychological adjustment, stressors directly linked to COVID-19 and four psychological factors theoretically implicated in the change processes (core belief violation, meaning-making, vulnerability and mortality perception). During the second wave of the pandemic 680 medical patients completed an online survey on direct and indirect COVID-19 stressors, health and demographic information, post-traumatic growth, core belief violation, meaning-making capacity, feelings of vulnerability and perceptions of personal mortality. Violation of core beliefs, feelings of vulnerability and mortality, and pre-pandemic mental illness positively correlated with post-traumatic growth. Moreover, the diagnosis of COVID-19, stronger violation of core beliefs, greater meaning-making ability, and lower pre-existing mental illness predicted greater PTG. Finally, a moderating effect of meaning-making ability was found. The clinical implications were discussed.

1. **Chasson, M., Orit, T., Ben, A., & Salam, A.S. (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, C., & Tang, S. (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, 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 posttraumatic growth among nurses during the COVID-19 pandemic. *International journal of mental health nursing, 30(1)*, 102-116. doi:10.1111/inm.12796**

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. **Cui, P. P., Wang, P. P., Wang, K., Ping, Z., Wang, P., & Chen, C. (2021). Post-traumatic growth and influencing factors among frontline nurses fighting against COVID-19. *Occupational and environmental medicine,* 78(2), 129–135.** [**https://doi.org/10.1136/oemed-2020-106540**](https://doi.org/10.1136/oemed-2020-106540)

Abstract: To explore the level and influencing factors of frontline nurses' post-traumatic growth (PTG) during COVID-19 epidemic. Methods: A cross-sectional survey was conducted in February 2020 in three hospitals in China. The Post-traumatic Growth Inventory (PTGI) was used to investigate the PTG of frontline nurses. Data on related factors, including demographic characteristics and subjective variables, were collected. The Event-Related Rumination Inventory was used to assess rumination. Pearson's or Spearman's correlation was calculated for bivariate analysis. Independent sample t-tests or one-way analysis of variance and multiple linear regression analysis were used to examine the related factors. Results: A total of 179 frontline nurses were recruited, and 167 were included in the analyses. The mean PTG score was 70.53±17.26. The bivariate analyses showed that deliberate rumination was modestly positively correlated with PTG (r=0.557, p<0.01), while intrusive rumination had a modest negative correlation with PTG (r=-0.413, p<0.01). Multiple linear regression demonstrated that working years, self-confidence in frontline work, awareness of risk, psychological intervention or training during the epidemic and deliberate rumination were the main influencing factors of PTG among frontline nurses and accounted for 42.5% of the variance (F=31.626, p<0.001). Conclusions: The PTG of frontline nurses was at a medium to high level and was influenced by working years, self-confidence in frontline work, awareness of risk, psychological intervention or training and deliberate rumination. It is necessary to strengthen psychological guidance and training for frontline nurses and promote their deliberate rumination on epidemic events to improve their PTG.

1. **Dahan, S., Levi, G., & Segev, R. (2022). Shared trauma during the COVID-19 pandemic: Psychological effects on Israeli mental health nurses. *International journal of mental health nursing*, 31(3), 722–730.** [**https://doi.org/10.1111/inm.12996**](https://doi.org/10.1111/inm.12996)

Abstract: Mental health nurses, tasked with the constant care of clients undergoing mental health treatment, have faced unique challenges arising from the uncertain outcomes of the COVID-19 pandemic. The shared exposure of both nurses and their patients to a traumatic event such this pandemic leads to additional challenges and ways of coping. The psychological effects of this shared trauma on mental health nurses arising from the pandemic are the subject of this study. An online survey was used to examine personal levels of anxiety and concern, personal and national resilience (NR), and posttraumatic growth (PTG) among 183 mental health nurses working in mental health services in Israel. Overall, the study revealed moderate levels of concern and relatively low levels of anxiety, with significant negative correlations between personal and NR and levels of concern and anxiety. Higher levels of personal and NR were related to lower levels of concern and anxiety, and there was a significant positive correlation between assessments of personal resilience and NR. A significant positive correlation was found between personal and NR and PTG. Higher religiosity was associated with higher resilience, and higher professional seniority was related to higher PTG. Finally, results for particular demographic subgroups indicate that in Israel, special attention should be given to those mental health nurses who have immigrated to Israel, are non-Jews or have less professional experience.

1. **Das, K., Qureshi, S., Haider, A., Tarique, M., & Bhatija, R. R. (2023). Post-traumatic growth among frontline doctors fighting against COVID-19 at a tertiary care public hospital in Karachi, Pakistan. *The Journal of the Pakistan Medical Association, 73(8),* 1653–1657.** [**https://doi.org/10.47391/JPMA.7813**](https://doi.org/10.47391/JPMA.7813)

Abstract: To evaluate post-traumatic growth experienced by medical doctors who served coronavirus disease-2019 patients. Method: The cross-sectional study was conducted from December 1, 2021, to February 28, 2022, at the Civil Hospital, Karachi, and comprised medical doctors of either gender aged >22 years who directly provided care for at least one month to coronavirus disease-2019 patients. Other than demographic and professional profile of the subjects, data was collected using the Post-Traumatic Growth Inventory, with total score ≥60 indicating a positive post-traumatic growth. Data was analysed using SPSS 22. Results: Of the 166 subjects approached, 150(90.3%) finished the study. There were 90(60%) females, 88(58.7%) were aged 25-35 years, 55(36.7%) were married, 107(71.3%) were postgraduate trainees, 79(52.7%) had 1-3 family members in the vulnerable groups, and 43(28.7%) had received any sort of psychological training. The mean post-traumatic growth score was 64.81±20.27 and 87(58%) doctors scored ≥60. The odds of experiencing post-traumatic growth for doctors with the number of vulnerable family members were significant (p<0.05). Doctors who had received psychological training before providing care to coronavirus disease-2019 patients showed higher odds of experiencing post-traumatic growth (p<0.05). Conclusion: Coronavirus disease-2019 resulted in substantial positive psychological growth for frontline doctors. Psychological training showed a significant role in post-traumatic growth.

1. **Deitz, A. H. H. (2024). Self-compassion, childhood emotional neglect, and posttraumatic growth: Parental well-being during COVID-19. *Journal of Affective Disorders*, 350, 504–512. https://doi.org/10.1016/j.jad.2024.01.130**

Abstract: The CoronaVirus Disease 2019 (COVID-19) pandemic can be conceptualized as a trauma that created additional unique stressors for parents. Self-compassion might promote posttraumatic growth (PTG); however, parents with histories of childhood emotional neglect may struggle to practice self-compassion when their own affectional needs were unmet earlier in life, carrying implications for both parental and child well-being. The objective is to examine the relationship between childhood emotional neglect and pandemic-related PTG, and the moderating role of self-compassion. Methods: An online cross-sectional survey collected information from 436 parents (M = 37.62 years, SD = 9.31) across the U.S. on pandemic- and parenting-related stresses, childhood emotional neglect, self-compassionate behavior, psychological distress, and pandemic-related PTG. Multiple regression analyses were conducted to analyze relationships among childhood emotional neglect, self-compassionate behavior, and pandemic-related PTG. Results: Parents who reported greater frequency of self-compassionate behavior tended to report higher pandemic-related PTG. Childhood emotional neglect alone did not predict pandemic-related PTG; however, for parents who reported less frequent self-compassionate behavior, greater childhood emotional neglect predicted lower pandemic-related PTG. Limitations: The cross-sectional design and sample homogeneity limit both causal inference and generalizability. Limitations in operationalization of PTG and self-compassion constructs are discussed. Conclusions: Findings emphasize the utility of self-compassionate behavior in promoting pandemic-related PTG, especially for adults with histories of childhood emotional neglect. Self-compassion is a freely accessible practice that individuals can implement successfully with minimal instruction. In terms of clinical relevance, therapists may be able to identify points of intervention wherein self-compassion may stimulate pandemic-related PTG.

1. **El Khoury-Malhame, M., Sfeir, M., Hallit, S., & Sawma, T. (2023). Factors associated with posttraumatic growth: Gratitude, PTSD and distress; one year into the COVID-19 pandemic in Lebanon. *Current psychology* (New Brunswick, N.J.), 1–10.** [**https://doi.org/10.1007/s12144-022-04159-8**](https://doi.org/10.1007/s12144-022-04159-8)

Abstract: Almost one year since the COVID-19 was declared a global pandemic, mental distress remains elevated with high prevalence of post-traumatic stress disorder (PTSD). Yet studies suggest these challenging circumstances might be conducive of post-traumatic growth (PTG). This study aims to investigate the factors associated with growth after the original trauma. A sample of 252 Lebanese adults filled an online survey to determine levels of PTG, PTSD and gratitude using validated self-rating scales. Participants also subjectively evaluated the sources of their distress such as the COVID-19 pandemic, the Beirut port explosion and/or their deteriorating financials. The PTGi-SF evaluated dimensions of growth while the IES-R\_22 measured the degree of distress post-trauma. The GQ-6 was used to measure the proneness to experience gratitude daily. Results indicated 41% of participants scored above the cutoff for PTSD symptomatology. Yet, PTSD was positively correlated, alongside gratitude and accumulated subjective distress, with higher levels of PTG. A forward linear regression taking PTG scores as the dependent variable further showed that more gratitude (Beta = 0.57), a higher impact of events (Beta = 0.16), and knowing anyone who died from COVID-19 (Beta = 3.93) were significantly associated with more growth. The study highlights elevated levels of PTSD symptoms in a context of a global pandemic worsened by financial and socio-political instabilities. It mostly identifies personal factors, including high initial symptomatology post-trauma and gratitude, related to the capacity for growth in spite of these accumulating hardships. As such, it advocates the need to investigate and bolster silver linings amidst unprecedented traumas.

1. **Fino, E., Bonfrate, I., Fino, V., Bocus, P., Russo, P. M., & Mazzetti, M. (2023). Harnessing distress to boost growth in frontline healthcare workers during COVID-19 pandemic: the protective role of resilience, emotion regulation and social support. *Psychological medicine*, 53(2), 600–602.** [**https://doi.org/10.1017/S0033291721000519**](https://doi.org/10.1017/S0033291721000519)
2. **Foster, K., Shakespeare-Finch, J., Shochet, I., Maybery, D., Bui, M. V., Steele, M., & Roche, M. (2024). Psychological distress, well-being, resilience, posttraumatic growth, and turnover intention of mental health nurses during COVID-19: A cross-sectional study. *International journal of mental health nursing*, 10.1111/inm.13354. Advance online publication.** [**https://doi.org/10.1111/inm.13354**](https://doi.org/10.1111/inm.13354)

Abstract: Mental health nurses (MHNs) experience a range of stressors as part of their work, which can impact their well-being and turnover intention. There is no prior evidence, however, on MHNs' mental health, well-being, resilience, and turnover intention during the COVID-19 pandemic. The aims of this online survey-based cross-sectional study, conducted during the pandemic, were to explore the psychological distress, well-being, emotional intelligence, coping self-efficacy, resilience, posttraumatic growth, sense of workplace belonging, and turnover intention of n = 144 Australian mental health registered and enrolled nurses; and explore relationships between these variables, in particular, psychological distress, well-being, and turnover intention. There was a higher percentage of MHNs with high (27.78%) and very high psychological distress (9.72%) compared to population norms as measured by the K10. Emotional intelligence behaviours were significantly lower than the population mean (GENOS-EI Short). Coping self-efficacy was mid-range (CSES-Short). Resilience was moderate overall (Brief Resilience Scale), and posttraumatic growth was mid-range (Posttraumatic Growth Inventory; PTGI). Sense of workplace belonging was moderate, and turnover intention was low. Higher levels of psychological distress were associated with higher turnover intention, and lower workplace belonging, coping self-efficacy, well-being, resilience, and emotional intelligence behaviours. Despite the levels of psychological distress, nearly half the sample (n = 71) was 'flourishing' in terms of well-being (Mental Health Continuum Short-Form). To help prevent staff distress in the post-pandemic period, organisations need to proactively offer support and professional development to strengthen staff's psychological well-being, emotional intelligence, and resilience skills. These strategies and group clinical supervision may also support lower turnover.

1. **Gaboardi, M., Naddeo, D., Meneghini, A. M., Lenzi, M., Canale, N., Stanzani, S., & Santinello, M. (2024). Yes, I will do it! Factors promoting the intention to volunteer after COVID-19 pandemic in Italy. *International journal of psychology: Journal international de psychologie*, 59(3), 471–475.** [**https://doi.org/10.1002/ijop.13110**](https://doi.org/10.1002/ijop.13110)

Abstract: This cross-sectional study assessed the extent to which the intention to volunteer after the COVID-19 pandemic is associated with resilience, post-traumatic growth, and community service self-efficacy in a representative Italian sample (N = 295; Mage = 44.77; SD = 14.79; range = 18-83 years; 53.22% men). The model tested through a path analysis revealed a positive association between community service self-efficacy and intention to continue volunteering. Multi-group comparisons revealed that this relationship was maintained in participants who were active volunteers, while in the group of former volunteers, only a positive association between post-traumatic growth and intention to volunteer was found. This study contributed to highlight the importance of community service self-efficacy and post-traumatic growth in the volunteering experience and the intention to continue volunteering in the future.

1. **Gesi, C., Cafaro, R., Achilli, F., Boscacci, M., Cerioli, M., Cirnigliaro, G., Loupakis, F., Di Maio, M., & Dell'Osso, B. (2024). The relationship among posttraumatic stress disorder, posttraumatic growth, and suicidal ideation among Italian healthcare workers during the first wave of COVID-19 pandemic. *CNS spectrums*, 29(1), 60–64.** [**https://doi.org/10.1017/S1092852923002493**](https://doi.org/10.1017/S1092852923002493)

Abstract: The COVID-19 pandemic impacted mental health across different groups, including healthcare workers (HWs). To date, few studies focused on potential positive aspects that may follow the exposure to the pandemic. We investigated the prevalence of posttraumatic stress disorder (PTSD) in Italian HWs and whether posttraumatic growth (PTG) dimensions affected the risk of suicidal ideation (SI) during the first COVID-19 wave. Methods: An online self-report survey was conducted between April and May 2020. Sociodemographic data, information about COVID-19-related stressful events, Impact of the Event Scale-revised, and Post-Traumatic Growth Inventory-Short Form (PTGI-SF) scores were collected and compared between participants. Patient Health Questionnaire-9 scores were also collected to assess SI through item 9. Multivariate logistic regression was used to assess the relationship between PTGI and SI. Results: Among 948 HWs, 257 (27.0%) reported a provisional PTSD diagnosis. The median PTGI-SF score was 24. Participants reporting PTSD symptoms had higher scores in the Spiritual change, Appreciation of life, and New possibilities domains, and in the total PTG scale. A total of 100 HWs (10.8%) screened positive for SI. Improvements in Relating to others domain of PTGI-SF (odds ratioOR: .46; 95% confidence interval: .25-.85) were associated with lower odds of SI. Conclusions: COVID-19 pandemic has been indicated as a risk factor for SI, also among HWs. PTG may have a protective role on suicide risk. Improvements in Relating to others domain reduced odds of SI, consistently with the role of loneliness and lack of connectedness with others in enhancing suicidal risk. Included – no descriptive statistics reported] {still exclude; table 2 is the correlations, and table 3 is the regression table – not enough to recover the mean and sd of the ptg scores}

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. **Jiang, H., Huang, N., Tian, W., Shi, S., Yang, G., & Pu, H. (2022). Factors Associated With Post-traumatic Stress Disorder Among Nurses During COVID-19. *Frontiers in psychology,* 13, 745158.** [**https://doi.org/10.3389/fpsyg.2022.745158**](https://doi.org/10.3389/fpsyg.2022.745158)

Abstract: To investigate post-traumatic stress disorder (PTSD), perceived professional benefits and post-traumatic growth (PTG) status among Chinese nurses in the context of the COVID-19 pandemic and to compare the differences between nurses working inside and outside Hubei. Methods: From February 18 to February 25, 2020, the authors constructed the questionnaire using the Questionnaire Star platform, and convenience sampling was used to distribute the questionnaire via WeChat. Nurses who worked at the hospital during the COVID-19 pandemic were the research subjects. Results: A total of 3,419 questionnaires were received, of which 2,860 nurses were working outside Hubei Province and 559 nurses were working inside Hubei Province. Both groups were exposed to COVID-19. The results indicated that gender, job title, department, average monthly income, the number of night shifts per month, hospital classification, specialization, and previous experience with assisting during disasters were statistically significant. The t-test results showed that the difference in perceived professional benefits scores between the two groups was not statistically significant, and the differences in PTG scores and PTSD scores between the two groups were statistically significant. The chi-square test indicated that the difference in PTSD prevalence between nurses working outside and inside Hubei Province was statistically significant and that the PTSD prevalence of nurses working outside Hubei Province was higher than that of nurses working inside Hubei Province. One-way ANOVA and independent sample t-test results showed that age, job title, job assignment, length of service, average monthly income, number of night shifts per month, number of children, and the Nurses’ Perceived Professional Benefits Scale (NPPBS) and post-traumatic growth inventory (PTGI) scores influenced the prevalence of PTSD. Logistic regression showed that the occurrence of PTSD was associated with average monthly income, length of service, number of children, and the PTGI and NPPBS scores. Conclusion: During the COVID-19 pandemic, nurses working outside Hubei Province reported greater. PTSD than those working inside Hubei Province. The occurrence of PTSD was related to average monthly income, length of service, number of children, and the PTGI and NPPBS scores.

1. **Kalaitzaki, A., & Rovithis, M. (2021). Secondary traumatic stress and vicarious posttraumatic growth in healthcare workers during the first COVID-19 lockdown in Greece: The role of resilience and coping strategies. *Psychiatrike = Psychiatriki,* 32(1), 19–25.** [**https://doi.org/10.22365/jpsych.2021.001**](https://doi.org/10.22365/jpsych.2021.001)

Abstract: Despite the indisputable negative psychosocial consequences of the COVID-19 pandemic, positive consequences are also pos- sible. Resilience and coping strategies have been assumed to contribute to these outcomes. However, findings are still scarce and inconclusive. The study aimed to examine the role of resilience and coping strategies in the secondary stress for the Greek healthcare workers (HCWs) and in the posttraumatic growth following the COVID-19 lockdown in Greece. A sample of 673 HCWs coming from Greece were recruited. A convenience and snowball mixed sampling procedure were used. A question- naire was distributed through social networking sites, webpages, and personal contacts of the author. Participants were asked to distribute it to their own contacts. Recruitment occurred during April 5–30, 2000, amid the lockdown (March 23–May 03), when people were asked to follow the stringent lockdown constraint enforced by the Greek government. Sociodemographic data were collected. The Secondary Traumatic Stress Scale measured secondary traumatic stress (STS) for the HCWs. The Post- Traumatic Growth Inventory, the Brief Resilience Scale, and the Coping Orientation to Problems Experienced Inventory mea- sured posttraumatic growth, resilience, and coping strategies, respectively. Regression analyses demonstrated that resilience and coping strategies were differentially associated with positive and negative (stress/growth) lockdown outcomes. Resilience and mostly maladaptive coping strategies predicted STS. A mixture of adaptive and maladaptive coping strategies predicted PTG. The so-called “second wave” of the outbreak that started in August 2020 indicates that the study of the psychosocial im- pact of the COVID-19 pandemic and lockdown and of the internal resources (resilience and coping) to deal with, is necessary. The findings contribute to a more comprehensive understanding of the coping strategies used by population subgroups (e.g., HCWs) in dealing with the COVID-19 lockdown in Greece. Enhancing internal resources through supportive services will amelio- rate HCWs ability to withstand, recover, and thrive with benefits in their psychological health and well-being.

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. **Kalaitzaki, A. E., Tamiolaki, A., Tsouvelas, G., Theodoratou, M., & Konstantakopoulos, G. (2023). Gain from pain: Exploring vicarious posttraumatic growth and its facilitators among health care workers across two consecutive lockdowns during the COVID-19 pandemic. *International Journal of Stress Management.*** [**https://doi.org/10.1037/str0000314**](https://doi.org/10.1037/str0000314)

Abstract: This study examined the potential facilitators of vicarious posttraumatic growth (VPTG; i.e., secondary traumatic stress symptoms—STS, resilience, coping strategies), the interspecialty differences in VPTG among medical (i.e., physicians and nurses) and nonmedical health care workers (HCWs; i.e., psychologists and social workers) across two consecutive lockdowns (T1 and T2), and the mediating role of the coping strategies in the STS–VPTG relationship. A sample of 1,076 HCWs (752 medical and 324 nonmedical) completed a web-based survey during two lockdowns. The Posttraumatic Growth Inventory was used to measure VPTG, whereas the Secondary Traumatic Stress Scale, the Brief Resilience Scale, and the Brief Coping Orientation to Problems Experienced Inventory were used to assess potential VPTG indicators. At T2, after controlling for gender and age, all participants reported significantly lower STS scores. Regarding PTGI scores, after controlling for gender and age, an interaction effect was observed between time point and specialty: At T1, the nonmedical HCWs reported higher PTGI scores compared to the medical HCWs, whereas at T2 the medical HCWs reported higher PTGI scores compared to the nonmedical HCWs. VPTG was positively predicted by time point (higher scores in T2), Secondary Traumatic Stress Scale intrusive symptoms, and the coping strategies of active coping, instrumental support, positive reframing, religion, and denial, and negatively predicted by gender, education, and substance use. These coping strategies fully mediated the relationship between intrusion and VPTG. Policies should enhance resources for HCWs at risk of STS and promote VPTG as an important contribution to their ability to deliver high-quality care.

1. **Kalaitzaki, A., Theodoratou, M., Tsouvelas, G., Tamiolaki, A., & Konstantakopoulos, G. (2024). Coping profiles and their association with vicarious post-traumatic growth among nurses during the three waves of the COVID-19 pandemic. *Journal of clinical nursing,* 10.1111/jocn.16988. Advance online publication.** [**https://doi.org/10.1111/jocn.16988**](https://doi.org/10.1111/jocn.16988)

Abstract: This study aimed to examine (a) changes in coping strategies and vicarious post-traumatic growth (VPTG) across three timepoints of the COVID-19 pandemic among nurses; (b) discrete groups of nurses with unique coping profiles and (c) the association of these coping profiles with VPTG across the timepoints.

Background: Although literature abounds with the negative mental health consequences of the pandemic among healthcare professionals, much less is known about the positive consequences on nurses, the coping strategies that they use, and how these change over time.Design: This was a cross-sectional web-based survey at three timepoints during the pandemic. Methods: A sample of 429 nurses completed online the Post-Traumatic Growth Inventory (PTGI) and the Brief Coping Orientation to Problems Experienced Inventory (COPE) to measure vicarious post-traumatic growth (VPTG) and coping strategies, respectively. The STROBE checklist was used to report the present study. Results: Significantly higher VPTG scores were observed during the third timepoint. Different coping strategies were employed across the three timepoints. Nurses responded to the pandemic either with an active, an avoidant or a passive coping profile. Significantly higher VPTG levels were reported by the nurses of the active profile compared to those of the passive profile, whereas the difference between active and avoidant profiles was not significant. Conclusions: Notwithstanding the preponderance of the nurses with the active coping profile in achieving high VPTG, the avoidant copers had more gains (VPTG) than the passive copers, suggesting that doing something to cope with the stressor-let it be trying to avoid it-was better than doing nothing.

1. **Kowalski, R. M., Carroll, H., & Britt, J. (2022). Finding the silver lining in the COVID-19 crisis. *Journal of health psychology*, 27(6), 1507–1514.** [**https://doi.org/10.1177/1359105321999088**](https://doi.org/10.1177/1359105321999088)

Abstract: Research has confirmed there is a silver lining to many aversive experiences and that negative occurrences can be an opportunity for post-traumatic growth (PTG). To investigate benefit-finding in the COVID-19 crisis, 179 MTurk workers were surveyed. Participants reported dips in satisfaction with work, leisure, fitness, mental health, and finances in the midst of the pandemic, relative to 6months prior and in the future. Benefit-finding in COVID-19 was significantly related to PTG, coping, gratitude, and mental health. The most common benefits of the crisis included more time with family and friends, slower pace of life, and improvements in physical health.

1. **Lafuenti, L., Dinapoli, L., Mastrilli, L., Savoia, V., Linardos, M., Masetti, R., Tortora, G., Valentini, V., Scambia, G., & Chieffo, D. P. R. (2023). Post-traumatic growth in oncological patients during the COVID-19 pandemic. *Health psychology report*, 12(2), 142–153.** [**https://doi.org/10.5114/hpr/169165**](https://doi.org/10.5114/hpr/169165)

Abstract: Post-traumatic growth (PTG) is defined as “positive psychological change experienced as a result of the struggle with highly challenging life circumstances”. Diagnosis of cancer leads to many psychological challenges. The recent pandemic forced oncological patients to face other multiple stressors. Resilience is a target of interest for PTG. The aim of this study is to analyze relationships between cancer trauma, COVID-19 pandemic stress, PTG and resilience over time.PARTICIPANTS AND PROCEDURE: One hundred forty-six patients (124 females, 22 males) in active oncological treatment were enrolled from September 2020: 45.2% (n = 66) diagnosed with gynecological cancer, 23.3% (n = 34) with breast cancer, 15.1% (n = 22) with lung cancer, 16.5% (n = 24) with other cancers. We conducted a prospective longitudinal study on oncological patients evaluated at: diagnosis (T0), 6 (T1) and 12 months (T2) by means of the following self-administered tests: Distress Thermometer (DT), Hospital Anxiety and Depression Scale (HADS), Impact of Event Scale Revised (IES-R), Post-traumatic Growth Inventory (PTGI), Perceived Stress Scale (PSS), Connor-Davidson Resilience Scale (CD-RISC). RESULTS: DT decreased over time (T0 vs. T2, p < .001). HADS decreased from T0 to T2 (p < .001). The PTG subscales regarding new possibilities and appreciating life improved comparing T0 vs. T2 (p = .029; p = .013), as well as the total index of PTG (p = .027). The IES avoidance subscale score decreased over time (T0 vs. T1, p = .035). CONCLUSIONS: For some patients, the cancer experience is characterized not only by psychological distress but also by the presence and growth of positive aspects, such as the tendency to positively reconsider the value and importance of life, health and social relationships.

1. **Lan, H., Suo, X., Zuo, C., Pan, N., Zhang, X., Kemp, G. J., Gong, Q., & Wang, S. (2023). Distinct pre-COVID brain structural signatures in COVID-19-related post-traumatic stress symptoms and post-traumatic growth. *Cerebral cortex (New York, N.Y. : 1991), 33(23)*, 11373–11383. https://doi.org/10.1093/cercor/bhad372**

Abstract: Post-traumatic stress symptoms and post-traumatic growth are common co-occurring psychological responses following exposure to traumatic events (such as COVID-19 pandemic), their mutual relationship remains unclear. To explore this relationship, structural magnetic resonance imaging data were acquired from 115 general college students before the COVID-19 pandemic, and follow-up post-traumatic stress symptoms and post-traumatic growth measurements were collected during the pandemic. Voxel-based morphometry was conducted and individual structural covariance networks based on gray matter volume were further analyzed using graph theory and partial least squares correlation. Behavioral correlation found no significant relationship between post-traumatic stress symptoms and post-traumatic growth. Voxel-based morphometry analyses showed that post-traumatic stress symptoms were positively correlated with gray matter volume in medial prefrontal cortex/dorsal anterior cingulate cortex, and post-traumatic growth was negatively correlated with gray matter volume in left dorsolateral prefrontal cortex. Structural covariance network analyses found that post-traumatic stress symptoms were negatively correlated with the local efficiency and clustering coefficient of the network. Moreover, partial least squares correlation showed that post-traumatic stress symptoms were correlated with pronounced nodal properties patterns in default mode, sensory and motor regions, and a marginal correlation of post-traumatic growth with a nodal property pattern in emotion regulation-related regions. This study advances our understanding of the neurobiological substrates of post-traumatic stress symptoms and post-traumatic growth, and suggests that they may have different neuroanatomical features.

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 in psychology, 12,* 675132.** [**https://doi.org/10.3389/fpsyg.2021.675132**](https://doi.org/10.3389/fpsyg.2021.675132)

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. **Levinsky, M., Schiff, M., Pat-Horenczyk, R., & Benbenishty, R. (2024). Emotional distress and posttraumatic growth during the COVID-19 pandemic: The case of the ultra-Orthodox Jewish society in Israel. *Psychological trauma : theory, research, practice and policy*, 16(1), 57–67.** [**https://doi.org/10.1037/tra0001406**](https://doi.org/10.1037/tra0001406)

Abstract: The COVID-19 pandemic has been associated with a range of negative responses, including emotional distress, as well as with positive changes, such as posttraumatic growth (PTG). Among the vulnerability factors the literature lists SES and being part of a minority group. The aim of this study is to identify patterns of responses among the ultra-Orthodox Jewish society in Israel, in terms of both emotional distress (anxiety and depression) and multiple dimensions of PTG. Method: The data were collected during the second wave of COVID-19 in Israel, between May and November 2020. The sample included 369 participants, all belonging to the ultra-Orthodox society. Latent class analysis was used to establish heterogeneous classes of participants displaying similar response patterns, using the Patient Health Questionnaire-9 (PHQ-9) for depression, the Generalized Anxiety Disorder-7 index (JAD-7), and the 10-item version of the Posttraumatic Growth Inventory (PTGI-10). Multinomial regression examined which of the predictors best distinguished between the classes. Results: Three classes were identified, termed here Resilience, Growth, and Distress. As differential predictors of class membership, the study identified age; gender; self-rated health; and COVID-19-related potential negative experiences: economic decline, concerns, and microaggression. The Resilience and Growth patterns were the most prominent. A small number of participants formed a class characterized by high levels of distress. Conclusions: The findings contribute to understanding the psychological response patterns of a minority group to COVID-19. The characteristics of the three classes highlight the important role of potentially negative experiences related to COVID-19 in the response patterns.

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**

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. **Li, L., Mao, M., Wang, S., Yin, R., Yan, H., Jin, Y., & Cheng, Y. (2022). Posttraumatic growth in Chinese nurses and general public during the COVID-19 outbreak. *Psychology, health & medicine,* 27(2), 301–311.** [**https://doi.org/10.1080/13548506.2021.1897148**](https://doi.org/10.1080/13548506.2021.1897148)

Abstract: COVID-19 as a pandemic disease, till 18 May 2020, has infected more than 84,494 people in China and 4721,051 abroad. While countries around the world concentrate on controlling the pan- demic to minimize damage to this country, the positive psychol- ogy brought to nurses and general public (GP) by COVID-19 should not be ignored. This study aims to assess post-traumatic growth (PTG) of Chinese nurses and GP during the COVID-19 pandemic. The study employed PTG in Chinese nurses and GP with Posttraumatic growth inventory questionnaire (PTGI) via a mobile app-based questionnaire, anxiety and ways to copy with stress in nurses were also employed. A total of 455 nurses and 424 GP were included in the statistical analysis. Results indi- cated that score of total PTGI and three dimensions, new possibi- lities, personal strength and spiritual change, were different between nurses and GP. Furthermore, score of total PTGI and all domains were significantly different between 178 front-line nurses (FLNs) and 277 non-front-line nurses (nFLNs). Importantly, sex, marriage status, professional titles, fertility, anxiety and ways to copy with stress were associated with PTG in nurses. Moreover, marriage status and ways to copy with stress were the predictors of PTG in nurses. Interestingly, this study found that WeChat net- work psychological counseling and phone app of application self- relaxation were good and effective coping strategies for nurses to relieve stress. Thus, the development of valid intervention pro- grams for nurses to diminish job burnout and increase care quality was also important.

1. **Liu, G., Zeng, L., Wang, F., Feng, F., Jin, M., Xie, W., Tang, P., Qiu, Y., & Wang, J. (2024). Prevalence and factors of posttraumatic growth among Hubei residents during the COVID-19 pandemic: A cross-sectional study. *Psychology, health & medicine,* 29(1), 100–107.** [**https://doi.org/10.1080/13548506.2022.2132409**](https://doi.org/10.1080/13548506.2022.2132409)

Abstract: The adverse impact of the COVID-19 pandemic on mental health has been widely concerned, but the research on positive psychological factors is insufficient, this study aims to investigate the prevalence and factors of posttraumatic growth (PTG) among residents in the worst-hit areas of China (Hubei Province). We were conducted in three disaster areas with different severity in Hubei Province three months after the outbreak, and the data were from 575 respondents. Instruments included the simplified Chinese version of the Posttraumatic Growth Inventory (C-PTGI) and the public health emergency psychological questionnaire. Nonparametric tests, Spearman correlation analyses, and multiple linear regression equations were used to analyze the data. The results showed that three months after the outbreak of COVID-19, the PTG of Hubei residents was at a low level, and their sense of fear was the most prominent, with a positive detection rate of 82.09%. According to the results of this study, high PTG levels were associated with high levels of fear, married and healthcare providers, while low levels of PTG were associated with serious chronic diseases, males, good economic status, and poor prevention and control measures. Government departments should strengthen social support for residents, carry out necessary stress management training to help them correctly deal with negative emotions and promote their personal growth.

1. **Liu, S., Curenton, S. M., Sims, J., & Fisher, P. A. (2024). The promotive and protective effects of parents' perceived changes during the COVID-19 pandemic on emotional well-being among U.S. households with young children: an investigation of family resilience processes. *Frontiers in psychology*, 14, 1270514.** [**https://doi.org/10.3389/fpsyg.2023.1270514**](https://doi.org/10.3389/fpsyg.2023.1270514)

Abstract: The COVID-19 pandemic may constitute a traumatic event for families with young children due to its acute onset, the unpredictable and ubiquitous nature, and the highly distressing disruptions it caused in family lives. Despite the prevalent challenges such as material hardships, child care disruptions, and social isolation, some families evinced remarkable resilience in the face of this potentially traumatic event. This study examined domains of changes perceived by parents of young children that were consistent with the post-traumatic growth (PTG) model as factors that facilitate family resilience processes. Methods: This study drew data from the RAPID project, a large ongoing national study that used frequent online surveys to examine the pandemic impact on U.S. households with young children. A subsample of 669 families was leveraged for the current investigation, including 8.07% Black, 9.57% Latino(a), 74.44% non-Latino(a) White families, and 7.92% households of other racial/ethnic backgrounds. In this subsample, 26.36% were below 200% federal poverty level. Results: Approximately half of the parents reported moderate-to-large degrees of changes during the pandemic, and the most prevalent domain of change was appreciation of life, followed by personal strengths, new possibilities, improved relationships, and spiritual growth. Black and Latino(a) parents reported more changes in all five domains than White parents and more spiritual growth than parents of the other racial/ethnic groups. Moreover, parent-reported improved relationships were found to indirectly reduce young children's overall fussiness/defiance and fear/anxiety symptoms through reducing parents' emotional distress. Perceived changes in the new possibilities, personal strengths, and appreciation of life domains were found to serve as protective factors that buffered the indirect impacts of material hardship mean levels on child behavioral symptoms via mitigating parents' emotional distress. Discussion: These findings shed light on resilience processes of a family system in a large-scale, disruptive, and stressful socio-historical event such as the COVID-19 pandemic. The five PTG domains could inform therapeutic and intervention practices in the face of future similar events. Importantly, these findings and the evinced family resilience should not negate the urgent needs of policy and program efforts to address material hardships, financial instabilities, and race/ethnicity-based structural inequalities for families of young children.

1. **Liu, X.; Ju, X.; Liu, X. The Relationship between Resilience and Intent to Stay among Chinese Nurses to Support Wuhan in Managing COVID-19: The Serial Mediation Effect of Post-traumatic Growth and Perceived Professional Benefits. *Nurs. Open*. 2021, 8, 2866–2876.**

Abstract: To explore the mediating role of post-traumatic growth and perceived profes- sional benefits between resilience and intent to stay among Chinese nurses to sup- port Wuhan in managing COVID-19. Design: A cross-sectional questionnaire survey. Methods: In May 2020, the study recruited a convenience sample of 200 Chinese nurses to support Wuhan in managing COVID-19. A set of self-rating questionnaires was used to measure resilience, post-traumatic growth, perceived professional ben- efits and intent to stay. Structural equation modelling was performed with 5,000 bootstrap samples using AMOS 23.0. Results: The final model provided a good fit for the data. Resilience had the strongest direct effect on intent to stay. Perceived professional benefits partially mediated the association between resilience and intent to stay. Overall, the serial multiple media- tions of post-traumatic growth and perceived professional benefits in the relation- ship between resilience and intent to stay was statistically significant.

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**](https://doi.org/10.1111/aphw.12276)

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. **Morales, D. X., Grineski, S. E., & Collins, T. W. (2023). The silver lining of the COVID-19 pandemic: Undergraduate research experiences, mentorship, and posttraumatic growth. *Research in Higher Education.*** [**https://doi.org/10.1007/s11162-023-09763-6**](https://doi.org/10.1007/s11162-023-09763-6)

Abstract: Although previous research has documented benefits of undergraduate research experiences (UREs), posttraumatic growth from COVID-19 has never been examined. Based on data collected from 891 students from 114 US universities in July 2020, this study shows that among undergraduates who conducted research during COVID-19, underrepresented minorities (URMs) reported greater posttraumatic growth than non-URMs. URMs who had more competent mentors or more URM/women mentors experienced more growth than URMs who had less competent mentors or less URM/women mentors. Women reported greater posttraumatic growth than men, but same-gender mentor-mentee relationships did not foster more growth in them. LGBQ + students experienced less posttraumatic growth than non-LGBQ + students. UREs have the potential to provide a safety net for many students during a major crisis.

1. **Moreno-Jiménez, J. E., Blanco-Donoso, L. M., Demerouti, E., Belda Hofheinz, S., Chico-Fernández, M., Moreno-Jiménez, B., & Garrosa, E. (2021). The Role of Healthcare Professionals' Passion in Predicting Secondary Traumatic Stress and Posttraumatic Growth in the Face of COVID-19: A Longitudinal Approach. *International journal of environmental research and public health,* 18(9), 4453.** [**https://doi.org/10.3390/ijerph18094453**](https://doi.org/10.3390/ijerph18094453)

Abstract: COVID-19 has increased the likelihood of healthcare professionals suffering from Secondary Traumatic Stress (STS). However, the difficulty of this crisis may lead these professionals to display personal resources, such as harmonious passion, that could be involved in posttraumatic growth. The goal of this study is to examine the STS and posttraumatic growth among healthcare professionals and the demands and resources related to COVID-19. A longitudinal study was carried out in April 2020 (T1) and December 2020 (T2). The participants were 172 health professionals from different health institutions and they reported their workload, fear of contagion, lack of staff and personal protection equipment (PPE), harmonious passion, STS and posttraumatic growth. The results revealed that workload and fear of contagion in T2 were positive predictors for STS, whereas harmonious passion was a negative predictor. Fear of contagion of both times seemed to positively predict posttraumatic growth, as well as harmonious passion. One moderation effect was found concerning the lack of staff/PPE, as posttraumatic growth was higher when the workload was high, especially in those with a high lack of staff/PPE. All in all, these findings pointed out the need for preventative measures to protect these professionals from long-term negative consequences.

1. **Nie, T., Tian, M., & Liang, H. (2021). Relational Capital and Post-Traumatic Growth: The Role of Work Meaning. *International journal of environmental research and public health*, 18(14), 7362.** [**https://doi.org/10.3390/ijerph18147362**](https://doi.org/10.3390/ijerph18147362)

Abstract: Through a statistical survey of 760 front-line medical staff during the COVID-19 epidemic, this study attempts to explore the relationships between relational capital, psychological security, post-traumatic growth and the meaning of work. Data analysis verifies that trust, reciprocity, and identification can promote post-traumatic growth by enhancing the individual's psychological security. A high level of work meaning can enhance the role of trust, reciprocity and identification in promoting psychological security. Work meaning has a moderated mediating effect when trust and reciprocity affect post-traumatic growth through psychological security, but no moderated mediating effect is found when identification affects post-traumatic growth through psychological security.

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. **Nowicki, G. J., Schneider-Matyka, D., Godlewska, I., Tytuła, A., Kotus, M., Walec, M., Grochans, E., & Ślusarska, B. (2024). The relationship between the strength of religious faith and spirituality in relation to post-traumatic growth among nurses caring for COVID-19 patients in eastern Poland: a cross-sectional study. *Frontiers in psychiatry,* 14, 1331033.** [**https://doi.org/10.3389/fpsyt.2023.1331033**](https://doi.org/10.3389/fpsyt.2023.1331033)

Abstract: The COVID-19 pandemic had forced intensive care unit (ICU) nurses to adapt to extreme conditions in a short period of time. This resulted in them experiencing extremely stressful situations. The aim of this study was to assess the relationship between post-traumatic growth (PTG) and religiosity and spirituality (R/S) among nurses caring for COVID-19 patients in intensive care during the pandemic.

Materials and methods: 120 nurses working in Lublin, eastern Poland, participated in the cross-sectional study. The questionnaire was made up of three standardised tools: The Post-Traumatic Growth Inventory, The Santa Clara Strength of Religious Faith Questionnaire, The Spiritual Attitude and Involvement List. Results: In terms of spirituality, the study group of nurses achieved the highest score in the Connectedness with Nature subscale (4.37 ± 1.07), while the strength of religious beliefs had a positive correlation with post-traumatic growth only in the Spiritual changes subscale (r = 0.422, p< 0.001). The following dimensions of spirituality were significantly correlated with post-traumatic growth in the multi-factor model that included religiosity and spirituality: Transcendent experiences, Spiritual activities, Meaningfulness, Acceptance, and Trust. We saw that increase in the assessment of the Transcendent experiences, Meaningfulness and Trust subscales significantly mirrors increase in post-traumatic growth, while increase in the assessment of the Spiritual activities and Acceptance subscales significantly mirrors decrease in post-traumatic growth. The above variables explained up to 44% of the dependent variable. Conclusion: Both religiosity and spirituality were significantly associated with post-traumatic growth in the group of ICU nurses, but spirituality appears to have played a larger role. Our findings support the value and significance of the development of spiritual and religious identity as a means of enhancing positive psychological changes in the face of traumatic events.

1. **Ottaviani, G., Canfora, F., Leuci, S., Coppola, N., Pecoraro, G., Rupel, K., Bogdan Preda, M. T., Vello, V., Umberto, A., Gasparro, R., Gobbo, M., Guarda-Nardini, L., Giudice, A., Calabria, E., Aria, M., D'Aniello, L., Fortuna, G., Biasotto, M., Di Lenarda, R., Mignogna, M. D., … Adamo, D. (2024). COVID-19 impact on post-traumatic stress symptoms in burning mouth syndrome: A multicentric study. *Oral diseases,* 10.1111/odi.14915. Advance online publication.** [**https://doi.org/10.1111/odi.14915**](https://doi.org/10.1111/odi.14915)

Abstract: This study investigates the psychological impact of COVID-19 on burning mouth syndrome (BMS) patients. It focuses on comparing post-traumatic stress symptoms (PTSS), post-traumatic growth (PTG), and resilience between BMS patients and Controls. Methods: A total of 100 BMS patients and 100 Controls from five Italian centers participated in this observational cross-sectional study. They completed several assessments, including the General Health Questionnaire, Depression Anxiety and Stress Scale, Insomnia Severity Index, National Stressful Events Survey Short Scale, Impact of Event Scale-Revised, Post Traumatic Growth Inventory Short Form, and Connor-Davidson Resilience Scale. Results: BMS patients had significantly higher stress, anxiety, and depression (DASS-21 score) and post-traumatic stress symptoms (IES-R-6 score), particularly in terms of intrusive thoughts. They showed lower post-traumatic growth (PTGI-SF score) compared to Controls. The resilience scale (CDRS-10) was a key predictor of PTG in both groups, explaining a significant variance in PTGI-SF scores. Conclusions: BMS patients experienced heightened post-traumatic stress, stress, anxiety, and depression during the COVID-19 pandemic, with reduced post-traumatic growth. This highlights the need to prioritize their psychological well-being, focusing on stress management and fostering post-traumatic growth in challenging times.

1. **Özönder Ünal, I., Ünal, C., Duymaz, T., & Ordu, C. (2023). The relationship between psychological flexibility, self-compassion, and posttraumatic growth in cancer patients in the COVID-19 pandemic. *Supportive care in cancer : official journal of the Multinational Association of Supportive Care in Cancer*, 31(7), 428.** [**https://doi.org/10.1007/s00520-023-07891-4**](https://doi.org/10.1007/s00520-023-07891-4)

Abstract: The COVID-19 pandemic may have an important long-term emotional impact on patients with cancer diagnosis, as they are in the high-risk group. We aimed to evaluate the relationship between self-compassion, psychological flexibility, and posttraumatic growth, and to examine whether psychological flexibility may serve as a mediator between self-compassion and posttraumatic growth. Methods: Two hundred fifty-three patients with cancer were included in the study. Sociodemographic and Clinical Features Data Form, Self-Compassion Scale (SCS), Freiburg Mindfulness Inventory (FMI), Acceptance and Action Questionnaire-II (AAQ-II), Cognitive Fusion Questionnaire (CFQ), and Posttraumatic Growth Inventory (PTGI) were applied to all patients. Results: The multivariate analysis with independent variable SCS, FMI, AAQ-II, and CFQ scores explains 49% of the variance in PTGI (F(4,248) = 60,585, p < 0.001). SC and FMI scores were found to have a positive and AAQ-II and CFQ scores a negative predictive effect on PTGI scores. The partial mediational effect of psychological flexibility on the relationship between self-compassion and posttraumatic growth was found to be statistically significant.Conclusion: In traumatic life events such as pandemics, the importance of self-compassion for posttraumatic growth and the mediator role of psychological flexibility in this relationship should be considered in order to manage the treatment process in cancer patients. These patients are more affected by the pandemic due to the nature of their malignancy and the strict protective measures they must follow as members of a high-risk group. The significance of therapies focused on psychological flexibility should be emphasized in comprehensive biopsychosocial approaches for the management of cancer patients.

1. **Paeizi, Z., Akbari, M., Mohammadkhani, S., Faiz, S.H.R. and Griffiths, M.D. , 2024. A cross-sectional survey on the relationship between spirituality and posttraumatic growth during the COVID-19 pandemic: the mediating role of emotion regulation and self-compassion. *International Journal of Cognitive Therapy*. ISSN 1937-1209**

Abstract: Post-traumatic growth (PTG) refers to potential positive outcomes following exposure to trauma and may have been experienced during the COVID-19 pandemic. The present study investigated the mediating role of emotion regulation (cognitive reappraisal) and self-compassion in the relationship between spirituality and PTG. The sample comprised 700 patients with COVID-19 who were hospitalized during their illness at Hazrat-Rasoul Hospital in Tehran, Iran (395 males, mean age = 52 years, SD = 14, age range = 14–95 years). Data were collected using a questionnaire packet that included the Post-Traumatic Growth Inventory (PTGI), the Daily Spiritual Experience Scale (DSES), the Emotion Regulation Questionnaire (ERQ), and the Self-Compassion Scale (SCS). Structural equation modeling analysis supported the proposed model which indicated that spirituality is both directly and indirectly associated with PTG through emotion regulation (cognitive reappraisal) and self-compassion. To test the indirect effects, bootstrap analysis was conducted with a 95% confidence interval and 5000 sample replacements. The results showed that spirituality influenced PTG through emotion regulation and self-compassion. The findings suggest that attention to these factors is crucial in facilitating the path to PTG.

1. **Peng, X., Zhao, H. Z., Yang, Y., Rao, Z. L., Hu, D. Y., & He, Q. (2021). Post-traumatic Growth Level and Its Influencing Factors Among Frontline Nurses During the COVID-19 Pandemic. *Frontiers in psychiatry*, 12, 632360.** [**https://doi.org/10.3389/fpsyt.2021.632360**](https://doi.org/10.3389/fpsyt.2021.632360)

Abstract: To assess post-traumatic growth (PTG) level and explore its influence factors among frontline nurses during the COVID-19 pandemic. Methods: From April 11th to 12th, 2020, a cross sectional study was conducted on 116 frontline nurses who had participated in fight against the COVID-19 in Wuhan city, China. General information and psychological discomfort were collected. Chinese version post-traumatic growth inventory with 20 items was applied to assess PTG level. Univariable analyses and multiple linear regression were performed to explore potential influencing factors of PTGI score. Results: The average score of PTGI in frontline nurses was 65.65 ± 11.50. In univariable analyses, gender, age, education level, marital status, living with parents, professional title, working years and professional psychological support was not statistically associated with the PTGI score. In both univariable and multivariable analyses, having support from family members and friends, being psychological comfort and having children and increased the PTGI score significantly. The three factors only explained 3.8% variance. Conclusion: Moderate PGT was observed in the frontline nurses who had battled against COVID-19. Social support and professional psychological intervention should be applied to further improve PTG level. Further studies with large sample size are required to explore more potential influencing factors.

1. **Petrocchi, S., Pellegrino, S. A., Manoni, G., Petrovic, G., & Schulz, P. J. (2023). "What does not kill you… mutates and tries again." A study on personality determinants of post-traumatic growth during the COVID-19 pandemic. *Current psychology* (New Brunswick, N.J.), 1–15. Advance online publication.** [**https://doi.org/10.1007/s12144-023-04415-5**](https://doi.org/10.1007/s12144-023-04415-5)

Abstract: The COVID-19 pandemic was recognized as a collective trauma and as a major threat to mental health. Recent literature focused on the stress symptomatology or post-traumatic stress disorder associated to the COVID-19 exposure. The concept that people have a natural inclination toward growth, even under stressful and threatening events, gathered less attention. Previous research has analyzed antecedents of post-traumatic growth (PTG) with non-conclusive results. Methods. The present research aimed at including findings on PTG from personality traits, i.e., sense of control and self-mastery, and distal condition of nurturance and support received by others, i.e., cognitive and affective well-being. Analyses were based on 4934 interviews with adults (Mage = 57.81 years, 55.5% women) from the Swiss Household Panel study. Results. Relationships over time emerged between sense of control and self-mastery on PTG and worries, measured after two years, via the mediation of cognitive and affective well-being. Conclusion. Results come from a large study in a design seldom employed in this type of research and can inform both research and interventions.

1. **Pfeiffer, K., Cunningham, T., Cranmer, J. N., Harrison, T., Crosby, H., Schroeder, K., Jordan, D., & Coburn, C. (2023). Changes in Posttraumatic Growth After a Virtual Contemplative Intervention During the COVID-19 Pandemic. *The Journal of nursing administration*, 53(1), 40–46.** [**https://doi.org/10.1097/NNA.0000000000001240**](https://doi.org/10.1097/NNA.0000000000001240)

Abstract: The aim of this study was to describe the effects of an intervention called "Compassion & Growth Workshops" on reported posttraumatic growth (PTG) using the Posttraumatic Growth Inventory-Expanded (PTGI-X). Background: Few studies measure the impact of interventions, such as contemplative practices, on nurse PTG. Methods: We delivered a series of three 2-hour microretreats to nurses and advanced practice nurses and measured their impact on PTG scores. Using multivariate logistic regression, we identified cofactors predictive of 25% overall improvement on the PTGI-X. Results: Overall PTG increased among participants, with the greatest improvement in relating to others, new possibilities, and personal strength. Posttraumatic growth improved as workshop attendance increased; nurses providing direct patient care also benefitted the most. Conclusions: Contemplative interventions can substantively improve PTG. This may be particularly relevant for coping with COVID pandemic stress among nurses on the frontlines and for healthcare leaders seeking to strengthen psychological support within their teams and reform the workplace environment.

1. **Read, R. K., Mason, O. J., & Jones, C. J. (2023). A randomised controlled trial (RCT) exploring the impact of a photography intervention on wellbeing and posttraumatic growth during the COVID-19 pandemic. *Arts & health*, 15(3), 275–291.** [**https://doi.org/10.1080/17533015.2022.2107033**](https://doi.org/10.1080/17533015.2022.2107033)

Abstract: Emerging evidence points to rising levels of psychological distress resulting from the COVID-19 pandemic. There is a need for self-administered, low-cost, and accessible interventions that facilitate wellbeing and growth. Methods: This study used a randomised controlled trial (RCT) design to investigate the effects of a two-week positivity-oriented photography intervention on wellbeing and posttraumatic growth in comparison to a control group. Participants were adults between the ages of 21 and 80 living in the UK recruited between May and August 2020 (n = 109). Results: After adjusting for baseline wellbeing, both wellbeing and PTG were significantly higher in the intervention group compared to the control group following intervention completion, with this effect remaining similar at one-month follow-up. Conclusions: The study offers preliminary evidence that a brief self-administered photography intervention could hold therapeutic value.

1. **Sarıalioğlu, A., Çiftçi, B., & Yıldırım, N. (2022). The transformative power of pain and posttraumatic growth in nurses with Covid-19 PCR positive. *Perspectives in psychiatric care*, 58(4), 2622–2630.** [**https://doi.org/10.1111/ppc.13102**](https://doi.org/10.1111/ppc.13102)

Abstract: This study aims to examine the relationship between the transformative power of pain and posttraumatic growth in nurses with positive Covid-19 polymerase chain reaction (PCR) test. Design and method: "Sociodemographics Form," "Transformative Power of Pain Scale," and "Post-Traumatic Growth Scale" were used to collect the data of the study. Findings: In the study, posttraumatic growth increased as the level of the transformative power of pain increased for nurses. Furthermore, some variables were found to have an effect on the transformative power of pain and the posttraumatic growth mean score in nurses who had positive Covid-19 PCR test. Practice implications: Nurses should be provided with social and professional psychological support to improve their transformative power of pain and posttraumatic growth levels.

1. **Song, Y., Chen, Q., & Wang, L. (2024). The Effect of Familism Emotions on Post-Traumatic Growth Among the Elderly in China: The Mediating Roles of Taoist Personality and Sense of Community. *Psychology research and behavior management,* 17, 641–652.** [**https://doi.org/10.2147/PRBM.S446550**](https://doi.org/10.2147/PRBM.S446550)

Abstract: Post-traumatic growth is a significant social issue in the management of active aging in elderly people. This study investigates the influence of familism emotions on post-traumatic growth (PTG) of the elderly, and the mediating role of Taoist personality and sense of community (SOC) therein, to provide a scientific basis for the development of positive aging in the elderly.Methods: A cross-sectional study was conducted in several communities of Hubei Province in China. A total of 338 elderly people were investigated with the Familism Emotion Scale, PTG Scale, Taoist Personality Scale and SOC Scale. SPSS 23.0 was used to derive descriptive statistics and conduct a common method bias test, Pearson correlation analysis, and multiple stepwise regression analysis. Mplus 7.3 was used for structural equation modeling to test the significance of parallel mediation effects on the data. Results: The results show that: (1) Familism emotions, Taoist personality and SOC are positively correlated with PTG; (2) Familism emotions, Taoist personality and SOC can all positively predict PTG in the elderly; (3) Both Taoist personality and SOC partially mediated the link between familism emotions and PTG in the elderly.Conclusion: In the context of particularly constraining societal events such as COVID-19, it is necessary to pay careful attention to the impact of external environmental influences upon the elderly, such as family and community, and to encourage elderly people to cultivate a more Taoist personality. The formation of a Taoist personality offers a promising new focus for research in elderly healthcare.

1. **Sun, L., Deng, J., Xu, J., & Ye, X. (2022). Rumination's Role in Second Victim Nurses' Recovery From Psychological Trauma: A Cross-Sectional Study in China. *Frontiers in psychology*, 13, 860902.** [**https://doi.org/10.3389/fpsyg.2022.860902**](https://doi.org/10.3389/fpsyg.2022.860902)

Abstract: Nurses can experience psychological trauma after adverse nursing events, making it likely for them to become second victims (SVs). This negatively impacts patient safety and nurses' development. This study aims to understand the status of psychological trauma and recovery of nurses as SVs in domestic China and examine the influencing mechanism of cognitive rumination during their recovery from psychological damage. Methods: This was a cross-sectional survey. An online questionnaire was completed by 233 nurses from across China. Data were collected using Chinese versions of the Second Victim Experience and Support Evaluation Scale, the Incident-related Rumination Meditation Questionnaire, and the post-traumatic growth (PTG) Rating Scale. Descriptive statistics, correlation, and regression, as well as mediation analysis, were used for different analyses in this study. Results: Participants experienced apparent psychological traumas (4.65 ± 0.5583) with a certain degree of PTG (76.18 ± 16.0040); they reported a strong need for psychological support (95.7%). Psychological trauma was positively and negatively correlated with rumination and PTG (r = 0.465, p < 0.001; r = -0.155, p < 0.05) respectively. Both psychologically impaired experience and rumination had significant predictive effects on participants' PTG (both, p < 0.001). Nurses' active rumination significantly mediated their psychological recovery from trauma to PTG (p < 0.05), but the effect of invasive rumination was not significant (p > 0.05). Limitation: The specific manifestations of the mechanism of invasive rumination are not clarified in this study. Conclusion: The present study investigated the psychological trauma of SV nurses as well as their support needs, and explored the role of cognitive rumination in the psychological repair and PTG of SV nurses. Results showed that SV nurses' active rumination on adverse nursing events could promote their recovery from psychological trauma, but invasive rumination could not. This study provides a trauma-informed approach to care at the clinical level for nurses who experience psychological trauma caused by adverse events.

1. **Tu, A. K., Restivo Haney, J., O'Neill, K., Swaminathan, A., Choi, K. W., Lee, H., Smoller, J. W., Patel, V., Barreira, P. J., Liu, C. H., & Naslund, J. A. (2023). Post-traumatic growth in PhD students during the COVID-19 pandemic. *Psychiatry research communications, 3(1)*, 100104.** [**https://doi.org/10.1016/j.psycom.2023.100104**](https://doi.org/10.1016/j.psycom.2023.100104)

Abstract: Throughout the COVID-19 pandemic, graduate students have faced increased risk of mental health challenges. Research suggests that experiencing adversity may induce positive psychological changes, called post-traumatic growth (PTG). These changes can include improved relationships with others, perceptions of oneself, and enjoyment of life. Few existing studies have explored this phenomenon among graduate students. This secondary data analysis of a survey conducted in November 2020 among graduate students at a private R1 University in the northeast United States examined graduate students' levels and correlates of PTG during the COVID-19 pandemic. Students had a low level of PTG, with a mean score of 10.31 out of 50. Linear regression models showed significant positive relationships between anxiety and PTG and between a measure of self-reported impact of the pandemic and PTG. Non-White minorities also had significantly greater PTG than White participants. Experiencing more negative impact due to the pandemic and ruminating about the pandemic were correlated with greater PTG. These findings advance research on the patterns of PTG during the COVID-19 pandemic and can inform future studies of graduate students’ coping mechanisms and support efforts to promote pandemic recovery and resilience.

1. **Ulset, V. S., & von Soest, T. (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. **Uziel, N., Gilon, E., Meyerson, J., Levin, L., Khehra, A., Emodi-Perlman, A., & Eli, I. (2021). Dental personnel in Israel, Canada, and France during the COVID-19 pandemic: attitudes, worries, emotional responses, and posttraumatic growth. *Quintessence international* (Berlin, Germany : 1985), 52(5), 444–453.** [**https://doi.org/10.3290/j.qi.b936999**](https://doi.org/10.3290/j.qi.b936999)

Abstract: The spread of COVID-19 has posed significant challenges for dental professionals worldwide. The aims of the present study were twofold: (i) to study the attitudes, emotional responses, and worries among the dental personnel; and (ii) to look for the ability of dental personnel to experience posttraumatic self-growth as a result of the distress caused by the pandemic. Method and materials: A cross-sectional online survey using an anonymous questionnaire was performed simultaneously in Israel, Canada, and France during the initial lockdown period. Results: Israeli dental practitioners were less worried about their physical health, mental health, or relationships with family and friends than their Canadian and French counterparts. The Canadian dental practitioners were most committed and most willing to treat their patients, as well as most concerned about not being able to treat patients in the same personal way as before the lockdown. French dental practitioners showed the highest level of fear to treat patients. There were no differences in dental practitioners' levels of anxiety, depression, or posttraumatic growth among the countries. Dental practitioners' posttraumatic growth was significantly associated with worries regarding their physical health. Conclusion: Responses of dental personnel to the COVID-19 pandemic varied worldwide. Despite the differences, evidence exists that some of the dental practitioners' worries and concerns are associated with psychologic growth as a result of the pandemic. Better understanding and acknowledgment of dental personnel's worries and concerns can facilitate growth and enable positive functioning under the continuous situation of uncertainty.

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. **Veronese, G., Mahamid, F. A., & Bdier, D. (2022). Subjective well-being, sense of coherence, and posttraumatic growth mediate the association between COVID-19 stress, trauma, and burnout among Palestinian health-care providers. *The American journal of orthopsychiatry*, 92(3), 291–301.** [**https://doi.org/10.1037/ort0000606**](https://doi.org/10.1037/ort0000606)

Abstract: The present work sought to examine the relationship between stress of coronavirus disease (COVID-19) disease, psychological trauma, and burnout, and whether subjective well-being (SWB), sense of coherence (SOC), and posttraumatic growth (PTG) mediated the relationship between the three constructs in a group of professional healthcare workers engaged on the frontline during the outbreak in Palestine. Results indicated that SWB, SOC, and PTG mediated the association between the stress of COVID, symptoms of trauma, and burnout. The psychological burdens of the ongoing military occupation have been exacerbated by the COVID outbreak, exposing health workers to additional stressors during their work and everyday life. However, a SOC associated with SWB and PTG might be a protective factor for trauma during the pandemic. Implications for health-care providers empowerment are discussed.

1. **Wang, S., Zhao, Y., & Li, J. (2023). True grit and brain: Trait grit mediates the connection of DLPFC functional connectivity density to posttraumatic growth following COVID-19. *Journal of affective disorders, 325*, 313–320.** [**https://doi.org/10.1016/j.jad.2023.01.022**](https://doi.org/10.1016/j.jad.2023.01.022)

Abstract: There is increasing interest in identifying factors to predict posttraumatic growth (PTG), a positive psychological response following traumatic events (e.g., the COVID-19 pandemic). Grit, a psychological trait of perseverance and passion to pursue long-term goals, has emerged as a promising predictor for PTG. This study aimed to examine the functional connectivity markers of grit and the potential brain-grit mechanism in predicting PTG. Methods: Baseline brain imaging scans and grit scale and other controlling measures were administered in 100 normal young adults before the COVID-19 pandemic, and follow-up PTG measurement was obtained during the period of community-level outbreak. Whole-brain correlation analysis and prediction analysis were used to identify the brain regions whose functional connectivity density (FCD) related to individuals' grit scores. Mediation analyses were performed to explore the mediation relation between FCD, grit and PTG. Results: Grit was positively related to FCD in the right dorsolateral prefrontal cortex (DLPFC), a core hub implicated in self-regulation and reward-motivation processes. Furthermore, grit mediated the effect of right DLPFC FCD on COVID-related PTG. These results survived controlling for self-control and family socioeconomic status. Limitations: Our study is limited by only one-session neuroimaging data and self-reported behavioral measures in a sample of normal adults. Conclusions: This study indicates grit and right DLPFC FCD as neuropsychological contributors for the development of PTG. It deepens our understanding of the neural bases of grit, and may have clinical potential to develop targeted brain interventions aimed at improving grit to raise PTG and mental health during the pandemic.

1. **Willey, B., Mimmack, K., Gagliardi, G., Dossett, M. L., Wang, S., Udeogu, O. J., Donovan, N. J., Gatchel, J. R., Quiroz, Y. T., Amariglio, R., Liu, C. H., Hyun, S., ElTohamy, A., Rentz, D., Sperling, R. A., Marshall, G. A., & Vannini, P. (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)*, 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. **Wu A. (2024). The relationship of social support to posttraumatic growth in COVID-19 among college students after experiencing campus lockdown: the effects of belief in a just world and meaning in life. *Frontiers in psychiatry*, 15, 1337030.** [**https://doi.org/10.3389/fpsyt.2024.1337030**](https://doi.org/10.3389/fpsyt.2024.1337030)

Abstract: Campus lockdown orders were issued for the purpose of preventing and controlling COVID-19, which resulted in psychological problems among college students. However, the experiences they have during the pandemic may also lead to positive personal changes, including posttraumatic growth (PTG). The current study examined the mediating role of belief in a just world and meaning in life in social support and PTG during the COVID-19 campus lockdown. Method: An online survey was conducted on 1711 college students in Hebei Province, China. Based on the survey results, a structural equation model was established. Results: Social support positively predicted PTG. Furthermore, belief in a just world and meaning in life played a mediating role between social support and PTG respectively. Besides, social support could also predict PTG through the multiple serial mediating effect of belief in a just world and meaning in life. Conclusion: These results indicated mechanisms by which social support influenced PTG, and this provided insights into how to promote post-traumatic growth among university students in the post-pandemic period.

1. **Yao, X., Wang, J., Yang, Y., & Zhang, H. (2023). Factors influencing nurses' post-traumatic growth during the COVID-19 pandemic: Bayesian network analysis. *Frontiers in psychiatry, 14,* 1163956.** [**https://doi.org/10.3389/fpsyt.2023.1163956**](https://doi.org/10.3389/fpsyt.2023.1163956)

Abstract: During the COVID-19 pandemic, nurses, especially if females and working in intensive care units or emergencies unit, were much more at risk than other health-workers categories to develop malaise and acute stress symptoms. This study aimed to examine the nurses’ post-traumatic growth and associated influencing factors during the COVID-19 pandemic. Methods A cross-sectional study using an online survey was conducted at Henan Provincial People’s Hospital to gather data from nurses. A set of questionnaires was used to measure the participants’ professional identity, organizational support, psychological resilience and post-traumatic growth. Univariate, correlation, and multiple linear regression analyses were used to determine significant factors influencing post-traumatic growth. A theoretical framework based on the Bayesian network was constructed to understand post-traumatic growth and its associated factors comprehensively. Results In total, 1,512 nurses participated in the study, and a moderate-to-high level of post-traumatic growth was reported. After screening, the identified variables, including psychological counseling, average daily working hours, average daily sleep duration, professional identity, organizational support, and psychological resilience, were selected to build a Bayesian network model. The results of Bayesian network showed that professional identity and psychological resilience positively affected post-traumatic growth directly, which was particularly pronounced in low- and high-scoring groups. While organizational support positively affected post-traumatic growth indirectly. Conclusion Although this study identified a moderate-to-high level of nurses’ post-traumatic growth, proactive measures to improve psychological resilience fostered by professional identity and organizational support should be prioritized by hospitals and nursing managers.

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. **Yılmaz-Karaman, İ. G., Yastıbaş-Kaçar, C., & Ece İnce, F. (2023). Posttraumatic growth levels of healthcare workers in two periods with different intensities of COVID-19 pandemic. *PsyCh journal*, 12(2), 297–306.** [**https://doi.org/10.1002/pchj.599**](https://doi.org/10.1002/pchj.599)

Abstract: The COVID-19 pandemic threatens health-care workers' (HCW) mental health and well-being. Although traumatic life events may result in psychiatric disorders, occasionally they give rise to positive changes, such as post-traumatic growth. Accordingly, the present study evaluated the traumatic stress, anxiety, and depression levels of HCWs and their post-traumatic growth levels during the pandemic. In addition, the study aimed to assess the changes in psychological outcomes during the pandemic. For this aim, the data were collected in two different periods. The first data-collection period was between May and July 2020, and the second period started in November 2020 and ended in January 2021. The sociodemographic data form, Impact of Events Scale-Revised (IES-R), Generalized Anxiety Disorder-7 (GAD-7), Patient Health Questionnaire-9 (PHQ-9), and Post-traumatic Growth Inventory (PTGI) were used to collect data. Sixty-six HCWs participated in the study. No significant differences appeared between the baseline scores and 6-month follow-up in the depression, anxiety, and traumatic stress levels of HCWs. Furthermore, the PTGI scores decreased significantly over time. Although the change in the psychological distress scores was not statistically significant, the depression and post-traumatic stress scores increased over time. Previous research specified an inverse-parabolic relationship between traumatic stress and PTGI. Our results support previous research; as the exposure to the stressors continues, individual traumatic stress levels increase, psychiatric disorders become frequent, and affirmative changes (like post-traumatic growth) decline.

1. **Yim, J. Y., & Kim, J. A. (2022). Factors influencing posttraumatic growth among nurses caring for COVID-19 patients: A path analysis. J*ournal of nursing management*, 30(6), 1940–1948.** [**https://doi.org/10.1111/jonm.13660**](https://doi.org/10.1111/jonm.13660)

Abstract: Based on Calhoun and Tedeschi’s posttraumatic growth model, this study aimed to establish a path model of posttraumatic growth among nurses who pro- vided care for coronavirus disease 2019 (COVID-19) patients and to examine the associations between the relevant variables.

Background: There are increasingly many studies examining the psychological health status of nurses caring for patients on the front lines of COVID-19. However, research results showing the effects of various variables affecting nurses’ post- traumatic growth through positive psychological transformation are insufficient. Methods: This cross-sectional study was based on a sample of 229 nurses who cared for COVID-19 patients for more than 1 month in South Korea from April to May 2021. Results: The fitness of the modified path model (χ 2 = 1.380, p = .502, GFI = 0.99, CFI = 1.00, NFI = 0.99, RMSEA = 0.00 and TLI = 1.01) was higher than that of the hypothesis path model (χ 2 = 124.133, p < .001, GFI = 0.85, CFI = 0.66, NFI = 0.65, RMSEA = 0.36 and TLI = 0.15). Deliberate rumination had directly influenced post- traumatic growth and posttraumatic stress disorder and social support had a direct and indirect effect on posttraumatic growth. Self-disclosure indirectly influenced posttraumatic growth through deliberate rumination but was not significant. Conclusions: In order to improve posttraumatic growth of nurses caring for COVID- 19 patients, it is necessary to provide and support opportunities for self-disclosure. Implication for Nursing Management: The results of this study can help institutions and nurse managers comprehensively understand the factors affecting posttraumatic growth of nurses caring for COVID-19 patients in the front lines and determine basic strategies based on the importance of these factors**.**

1. **Zeng, Z., Wang, H., Zhou, Y., Lu, Z., Ci, R., Lin, Y., Zeng, X., & Huang, L. (2023). The prevalence and factors associated with posttraumatic growth after 3-years outbreak of COVID-19 among resident physicians in China: a cross-sectional study. *Frontiers in psychiatry,* 14, 1228259.** [**https://doi.org/10.3389/fpsyt.2023.1228259**](https://doi.org/10.3389/fpsyt.2023.1228259)

Abstract: The Coronavirus disease 2019 (COVID-19) pandemic is a global traumatic event that has profoundly struck individuals' mental health. However, this might potentially promote positive transformation such as posttraumatic growth (PTG). Studies have indicated that the COVID-19 pandemic negatively affected the well-being of resident physicians, but little is known about PTG among this vulnerable population in China. Therefore, this study investigated the prevalence and associated factors of PTG among Chinese resident physicians after 3-years outbreak of COVID-19.

Methods: An online survey was conducted from 9 March to 20 March in 2023. PTG was assessed using the 10-item Posttraumatic Growth Inventory-Short Form (PTGI-SF). Scores ≥30 implied moderate-to-high PTG. We also collected possible associated factors for PTG, including socio-demographic and psychological variables. Data was analyzed by applying descriptive statistics, univariable and multivariable logistic regression models. Results: In total, 2267 Chinese resident physicians provided validated data. 38.7% of them reported moderate-to-high PTG. In the multivariable logistic regression models, age (odds ratio, OR = 1.039; 95% confidence interval, 95%CI = 1.008-1.070), female (OR = 1.383, 95%CI = 1.151-1.662), satisfied or neutral with annual income (OR = 2.078, 95%CI = 1.524-2.832; OR = 1.416, 95%CI = 1.157-1.732), sufficient support at work (OR = 1.432, 95%CI = 1.171-1.751) and resilience (OR = 1.171, 95%CI = 1.096-1.252) were significantly positively associated with moderate-to-high PTG. On the contrary, burnout (OR = 0.653, 95%CI = 0.525-0.812), depression symptoms (OR = 0.700, 95%CI = 0.552-0.889), and stress (OR = 0.757, 95%CI = 0.604-0.949) were significantly negatively associated with moderate-to-high PTG.

Discussion: Overall, resident physicians in China experienced relatively high prevalence of PTG that could be associated with several psychosocial factors. Findings may provide evidence to develop interventions for resident physicians to systematically and constructively process traumatic events related to the pandemic and foster their PTG.

1. **Zhang, N., Bai, B., & Zhu, J. (2023). Stress mindset, proactive coping behavior, and posttraumatic growth among health care professionals during the COVID-19 pandemic. *Psychological trauma : theory, research, practice and policy*, 15(3), 515–523.** [**https://doi.org/10.1037/tra0001377**](https://doi.org/10.1037/tra0001377)

Abstract: Recent research suggests that stress mindset influences how people response to stress, however, there is a dearth of research investigates the underlying mechanism accounting for the effects of stress mindset on psychological health. The current research investigated how stress mindset and engagement in proactive coping behaviors predicted posttraumatic growth among health care professionals during the COVID-19 pandemic in China. Method: Health care professionals (N = 589) from mainland China were invited to participate in this online study through completing the Stress Mindset Measure, Posttraumatic Growth Inventory (PTGI-X), and measurement on engagement in proactive coping behaviors and demographic variables at their convenience from July 9 to July 17, 2020. Results: Health care professionals reported high levels of posttraumatic growth at the total scale (58.6%), subdomains (84.9%). Age, stress mindset, and engagement in proactive coping behaviors were significant predictors of posttraumatic growth among health care professionals. Engagement in proactive coping behavior mediated the predicting effect of stress mindset on posttraumatic growth among health care professionals in China. Conclusion: A stress-is-enhancing mindset predicts higher level of posttraumatic growth among health care professionals during the COVID-19 pandemic in China, and the effect was mediated by engagement in proactive coping behaviors.

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**](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.

1. **Żurko, M., Słowińska, A., Senejko, A., Madeja-Bień, K., & Łoś, Z. (2022). Pandemic-activated psychological growth: significance of extraversion, self-consciousness and COVID-19 related anxiety. *Current issues in personality psychology*, 11(3), 182–192.** [**https://doi.org/10.5114/cipp.2022.112945**](https://doi.org/10.5114/cipp.2022.112945)

Abstract: The sense of threat to health and life in the face of a pandemic, accompanied by difficulties imposed by lockdown, may trigger a serious crisis. Among possible consequences of such a crisis may paradoxically be the phenomenon of psychological growth. The aim of this article is to identify predictors of pandemic-activated psychological growth (PPG). The relationships between extraversion, reflective and ruminative self-consciousness and PPG were the subject of our inquiry. Additionally, a question was posed about the indirect effect of self-consciousness on PPG through anxiety. Participants and procedure: The study involved 1206 participants aged 18 to 26 years, who declared that the pandemic situation significantly threatened their important life goals. Procedure: cross-sectional design. Four online short questionnaire-measures were used: the Ten-Item Personality Inventory (TIPI), the Rumination-Reflection Questionnaire (RRQ), the Current Self-disposition Scale (CSS), and the Post-traumatic Growth Inventory (PTGI). Results: Extraversion and reflective self-consciousness were direct predictors of higher PPG, whereas ruminative self-consciousness was directly related to a lower PPG. There was an indirect effect of ruminative self-consciousness on PPG through COVID-19 related anxiety. Conclusions: Although the results do not confirm the permanence of a growth effect, finding PPG predictors considered as beneficial resources for coping with difficult pandemic circumstances appears to be valuable in the current state of affairs.

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1. **Aydin, R., & Bulut, E. (2022). Experiences of nurses diagnosed with COVID-19 in Turkey: A qualitative study. International nursing review, 69(3), 294–304. https://doi.org/10.1111/inr.12735**

Abstract: This study examined the experiences of nurses diagnosed with COVID-19 under the guidance of Meleis' Transitions Theory. Background: Nurses, who make up the majority of healthcare professionals, are struggling with COVID-19, a silent war, on the front lines at the cost of their lives. The pandemic has deeply affected nurses' lives, and hundreds of nurses around the world have been diagnosed with COVID-19 and died. Methods: A descriptive qualitative approach was used in this study. Data were collected from 18 nurses who experienced COVID-19 symptoms, with a semistructured interview form prepared based on Meleis' Transitions Theory concepts. Interview transcripts were analyzed using a thematic analysis technique. The Consolidated Criteria for Reporting Qualitative Research checklist was used in the study. Results: The six themes that emerged in the data analysis were emotions experienced when nurses tested positive for COVID-19, emotions experienced during the quarantine process, posttraumatic growth, methods of coping with COVID-19, nursing care after COVID-19 treatment, and metaphors about COVID-19.Conclusion: This study showed that being diagnosed with COVID-19 caused nurses to have both positive (posttraumatic growth, empathic and psychosocial nursing care) and negative experiences (fear of death, stigma, etc.). They tried to cope with adverse situations due to COVID-19 by obtaining social support, thinking positively, and engaging in domestic activities.

1. **Bovero, A., Balzani, S., Tormen, G., Malandrone, F., & Carletto, S. (2023). Factors Associated with Post-Traumatic Growth during the COVID-19 Pandemic: A Systematic Review. Journal of clinical medicine, 13(1), 95.** [**https://doi.org/10.3390/jcm13010095**](https://doi.org/10.3390/jcm13010095)

Abstract: The COVID-19 pandemic was an unprecedented event that further stimulated the debate on the concept of trauma. To increase knowledge about the traumatic potential of the pandemic, the main objective of this study was to identify, through a systematic literature review, the main factors associated with the adaptive outcome of post-traumatic growth caused by COVID-19. Studies were selected from the PsychInfo, Embase, and PubMed databases, and 29 articles were included at the end of the screening process. The identified factors are of different natures, including personal variables such as personality traits, coping, and cognitive strategies used to face adversity, and interpersonal variables, one of the most important of which is the level of social support. In addition, several results confirmed a relationship between post-traumatic growth and post-traumatic stress symptoms, as well as indices related to psychological well-being. Finally, the results are discussed by comparing them with those already present in the literature, as well as with some of the main explanatory models of post-traumatic growth. In this regard, some of the factors identified, such as maladaptive coping, avoidance symptoms, optimism, and low-stress tolerance, suggest the possibility that the process of post-traumatic growth may also be characterized by an illusory dimension.

1. **Deleuil, S., & Mussap, A. J. (2023). Evaluating an online self-distancing intervention to promote emotional regulation and posttraumatic growth during the COVID-19 pandemic. Anxiety, stress, and coping, 36(1), 18–37.** [**https://doi.org/10.1080/10615806.2022.2150177**](https://doi.org/10.1080/10615806.2022.2150177)

Abstract: Three online studies were conducted to elucidate the role of emotional regulation (ER) in posttraumatic growth (PTG), evaluate the ability of an online self-distancing intervention to achieve ER, and test whether increasing the use of ER strategies promotes PTG. Design: Cross-sectional (Study 1) and longitudinal randomized controlled trials (RCT) (Studies 2 and 3). Method: In Study 1, 626 adults completed measures of ER, PTG, and psychosocial functioning during the COVID-19 pandemic. In Study 2, 149 adults participated in a five-week RCT comparing self-immersed, spatially self-distanced, and temporally self-distanced reflection in their ability to regulate negative affect. In Study 3, 117 adults replicated the RCT of Study 2 and completed the measures from Study 1 a week pre- and post-intervention. Results: Path analyses confirmed that ER strategies were relevant to COVID-19-related PTG. MANOVAs revealed that self-distancing was effective in regulating state negative affect. However, ANOVAs suggest that this was not due to increased use of ER strategies and did not improve PTG or psychosocial functioning. Conclusions: These findings support further research into the relevance of ER to PTG, and provide a foundation to understand PTG and develop PTG-promoting interventions within a broader stress-coping framework.

1. **DiGiovanni, M., Weller, I., & Martin, A. (2021). Pivoting in the pandemic: a qualitative study of child and adolescent psychiatrists in the times of COVID-19. Research square, rs.3.rs-287057.** [**https://doi.org/10.21203/rs.3.rs-287057/v1**](https://doi.org/10.21203/rs.3.rs-287057/v1)

Abstracts: We examined the personal and professional impacts of the COVID-19 pandemic on the development, practice, and shifting values of child and adolescent psychiatrists (CAP), in order to inform how the field may move forward post-pandemic. Methods, We conducted individual semi-structured interviews of child and adolescent psychiatrists (n = 24) practicing in the US. Participants were selected as a diverse purposive sample of active members of the American Academy of Child and Adolescent Psychiatry (AACAP). We analyzed anonymized transcripts through iterative coding using thematic analysis aided by NVivo software. Results, We identified three main thematic domains within participants’ response to the pandemic, which have engendered a reevaluation of and a recommitment to the aims of each clinician and the field of CAP more broadly. These domains, paired with representative questions, include: 1) Unsettling, or “who have we been?” (identifying discontents such as daily inefficiencies and intraprofessional loss of trust); 2) Adaptation, or “who are we now?” (exploring affordances and limitations of virtual work, and the evolution of personal and professional identity); and 3) Reimagination, or “who will we become?” (renewing a commitment to psychiatry as advocacy). Even as we identified a collective agreement toward the need for implementing change, just what needs to change, and how that change will be realized, remain contested.Conclusion, These three thematic domains, augmented by a national confrontation with race and equity, have engendered a field-wide reckoning with known inequities. They have reinvigorated collective responses and calls to action. The divergent mindsets to change and leadership have provided an aperture for what values and practices the field might instill in its next generation of practitioners.

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**

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. **Governale, A., McTighe, K., & Cechova, V. (2024). Psychological reactions to COVID-19: Ambiguous loss, posttraumatic growth, and coronavirus impact among college students. Psychological trauma : theory, research, practice and policy, 16(2), 201–207.** [**https://doi.org/10.1037/tra0001508**](https://doi.org/10.1037/tra0001508)

Abstract: As social distancing and mask requirements lift, young adults may experience continued impacts from the pandemic. For example, college students may be particularly vulnerable to negative impact of COVID-19 due to social isolation, disruption to education, and lost personal and economic opportunity. Method: In order to investigate how psychological reactions (e.g., ambiguous loss, psychological growth) predict current COVID-19 impact, 224 students (Mage = 20.21, SD = 2.64) from a private liberal arts college completed a cross-sectional survey during February or March 2022. Results: Several demographic findings emerged, including increased impact among older students (B = .25, p = .01) and caregiving students (B = 2.14, p < .001), while ambiguous loss (B = .24, p < .001) appeared to be the strongest predictor after controlling for demographic factors and COVID awareness. Finally, the relationship between posttraumatic psychological growth and COVID impact was moderated by first-generation student status, B = .15, p = .04. Conclusions: First-generation students reported elevated levels of COVID impact even when reporting high levels of growth, while posttraumatic growth buffered impact among non-first-generation students. Results support the need for targeted college-based resources and services for students who may need long-term social support and trauma-informed intervention following the COVID-19 pandemic.

1. **Jiang, J., Liu, Y., Han, P., Zhang, P., Shao, H., Dai, Z., & Zhuang, Y. (2024). Post-traumatic growth among emergency nurses after COVID-19 in Shanghai, China: a qualitative study. BMJ open, 14(2), e081212.** [**https://doi.org/10.1136/bmjopen-2023-081212**](https://doi.org/10.1136/bmjopen-2023-081212)

Abstract: This study aims to investigate the post-traumatic growth of emergency nurses (ENs) in Shanghai, China, in 2022 following the COVID-19 pandemic. Design: A phenomenological qualitative research approach was employed, with 17 ENs being interviewed between July and August 2022. Data collection was conducted through semistructured, in-depth interviews, and data analysis was carried out using the Colaizzi's seven-step analysis method. Setting: A third-level hospital in Shanghai. Participants: A total of 17 ENs were interviewed through face-to-face, semistructured, in-depth interviews. Results: Three main themes and eight subthemes were extracted from the data: (a) stress, (b) restructuring and (c) growth. Conclusion: Significant stress was imposed on ENs by the Shanghai COVID-19 pandemic, but cognitive restructuring was successfully undergone by them, leading to the experience of growth. It is recommended that post-traumatic growth levels be enhanced through professional psychological counselling and tailored support measures for different stages.

1. **Kapur, A., Rudin, B., & Potters, L. (2022). Posttraumatic Growth in Radiation Medicine During the COVID-19 Outbreak. Advances in radiation oncology, 7(4), 100975.** [**https://doi.org/10.1016/j.adro.2022.100975**](https://doi.org/10.1016/j.adro.2022.100975)

Abstract: It has been reported that adversarial growth during traumatic events potentially enhances coping with sequelae. The purpose of this work was to assess posttraumatic growth (PTG) among radiation medicine staff members at the individual level as well as changes in perceptions of departmental culture after the COVID-19 pandemic. Methods and Materials: An anonymous PTG inventory (PTGI) survey comprising 21 indicators was disseminated to all 213 members of our multicenter radiation department to measure perceptions of change in personal, interpersonal-relationship, and philosophy of life factors using principal-factor analysis. Additionally, 8 department safety-culture indicators from the National Hospital Patient Safety Culture Survey developed by the Agency for Healthcare Research and Quality were included to assess changes in department safety-culture perceptions verses a prepandemic survey. The survey was repeated 15 months later to assess longitudinal trends. Results: With a 56.3% survey-response rate, PTGI factor analysis yielded Cronbach’s alpha values exceeding 0.90 for the 3 aforementioned PTG factors. The average growth per indicator was 2.3 (out of 5.0), which fell between small and moderate. The values were 2.4 (personal), 2.1 (interpersonal), and 1.6 (philosophy) for the 3 factors. The total PTGI score (47.7 § 28.3 out of 105 points) was lower for masked, patient-facing, frontline workers members (41.8 § 28.4) compared with others (53.1 § 27.3, P value .001). For the Agency for Healthcare Research and Quality survey there was an improvement of 15% in perceptions of department safety culture, and 7 of the 8 indicators showed improvements compared with baseline. The follow-up survey demonstrated overall sustained findings, albeit with a trend toward declining PTG scores for nonfrontline workers, notably in interpersonal relationships (47.4 § 27.0, P value .05). Conclusions: A fair-to-moderate degree of PTG was observed in personal and interpersonal relationship factors whereas least growth was noted in spiritual and religious beliefs. Perceptions of department patient-safety culture improved substantially. Sustained improvements were thus perceived at the individual and department levels.

1. **Karbasi, A., Babakhanian, M., Ahmadzadeh, A., & Omranifard, V. (2024). The prevalence of post traumatic and associated factors among nurses during COVID\_19 pandemics: a systematic review and meta-analysis. BMC psychology, 12(1), 274.** [**https://doi.org/10.1186/s40359-024-01578-z**](https://doi.org/10.1186/s40359-024-01578-z)

Abstract: Despite the negative outcomes, exposure to a crisis may cause people to experience positive changes. This study aims to analyze the prevalence of post-traumatic growth (PTG) and its relevant factors among nurses during the COVID-19 pandemic. Method: The research protocol was registered with PROSPERO (CRD42022329671), and PRISMA steps were taken in this study. PubMed, Scopus and ProQuest were explored on 1/9/2022 to create the research database. According to the inclusion criterion, all studies analyzing the prevalence of post-traumatic growth through the PTG Inventory were considered eligible. They were all qualitatively assessed through the modified version of the Quality Assessment Checklist for prevalence studies.

1. **Lee, N., & Lee, H. J. (2020). South Korean Nurses' Experiences with Patient Care at a COVID-19-Designated Hospital: Growth after the Frontline Battle against an Infectious Disease Pandemic. International journal of environmental research and public health, 17(23), 9015.** [**https://doi.org/10.3390/ijerph17239015**](https://doi.org/10.3390/ijerph17239015)

Abstract: COVID-19 is a respiratory disease caused by a novel coronavirus that quickly spread worldwide, resulting in a global pandemic. Healthcare professionals coming into close contact with COVID-19 patients experience mental health issues, including stress, depression, anxiety, post-traumatic stress disorder, and burnout. This study aimed to explore the experiences of COVID-19-designated hospital nurses in South Korea who provided care for patients based on their lived experiences. Eighteen nurses working in a COVID-19-designated hospital completed in-depth individual telephone interviews between July and September 2020, and the data were analyzed using Giorgi's phenomenological methodology. The essential structure of the phenomenon was growth after the frontline battle against an infectious disease pandemic. Nine themes were identified: Pushed onto the Battlefield Without Any Preparation, Struggling on the Frontline, Altered Daily Life, Low Morale, Unexpectedly Long War, Ambivalence Toward Patients, Forces that Keep Me Going, Giving Meaning to My Work, and Taking Another Step in One's Growth. The nurses who cared for patients with COVID-19 had both negative and positive experiences, including post-traumatic growth. These findings could be used as basic data for establishing hospital systems and policies to support frontline nurses coping with infectious disease control to increase their adaption and positive experiences.

1. **Mohammed, N., & Lelièvre, H. (2022). Lived Experience of Medicine Nurses Caring for COVID-19 Patients: A Quality Improvement Perspective. Journal of nursing care quality, 37(1), 35–41.** [**https://doi.org/10.1097/NCQ.0000000000000590**](https://doi.org/10.1097/NCQ.0000000000000590)

Abstract: The COVID-19 pandemic has overwhelmed health care systems globally. To understand how health care systems can best support frontline health care providers caring for patients in similar situations, it is necessary to gain insights into their experience. Purpose: This quality improvement study explored the lived experience of Canadian frontline medicine nurses caring for COVID-19 patients during the first wave of the pandemic. Method: A qualitative interpretive phenomenological approach was conducted. Forty-three eligible nurses participated in semistructured interviews and online surveys. Full transcription and thematic content analysis were performed. Results: Three overarching themes were deduced: (1) a traumatic experience, (2) living through the experience, and (3) achieving transcendence. Conclusion: Several recommendations were identified. These recommendations aim to aid health care systems in emergency preparation planning and future pandemic responses while supporting frontline health care providers' resilience and well-being. **A**

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. **Prekazi, L., Hajrullahu, V., Bahtiri, S., Kryeziu, B., Hyseni, B., Taganoviq, B., & Gallopeni, F. (2021). The Impact of Coping Skills in Post-traumatic Growth of Healthcare Providers: When Mental Health Is Deteriorating Due to COVID-19 Pandemic. Frontiers in psychology, 12, 791568.** [**https://doi.org/10.3389/fpsyg.2021.791568**](https://doi.org/10.3389/fpsyg.2021.791568)

Abstract: Frontline healthcare providers are consistently exposed to potentially traumatic events while assisting patients with COVID-19. Post-traumatic growth (PTG) happens when a person can transform trauma and use adversity in one’s advantage. In response to limited studies on positive outcomes that may occur from the pandemic; this study aimed to elucidate the positive impact of coping with COVID-19 outbreak on mental health, such as PTG. Methodology: The study comprised a sample of 691 healthcare providers 59% female, including physicians (n = 138) and nurses (n = 550), working in public health facilities in Kosovo, with an average age of 41.6 years (SD = 10.79). They were asked to complete a questionnaire with four parts: Socio-demographic, GHQ-28, COPE and PTGI. A deterioration of mental health with somatic symptoms leading to the escalation due to COVID-19 outbreak was found.Results: Female healthcare providers reported more clinical symptoms as well as higher coping skills scores than men. The domains in which positive changes were most frequently observed were Relating to Others, New Possibilities and Personal Strength. There was no significant direct effect of mental health on PTG in the mediation model, though a significant indirect effect was observed for coping skills.Conclusion: The results suggest that levels of mental health exacerbation do not play a conclusive role in determining levels of PTG, as long coping mechanisms are in place. The development and implementation of interventions to minimize COVID-19-related mental health consequences, by fostering PTG among healthcare providers could be highly beneficial in pandemic response work.

1. **Prieto-Ursúa, M., & Rafael J. (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**

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. **Tencerová, J., Halama, P., & Uhrecký, B. (2024). "I loved before, but now I love even more." Qualitative study of posttraumatic growth as a consequence of severe COVID-19 experience in Slovak adults. Frontiers in psychology, 15, 1335145.** [**https://doi.org/10.3389/fpsyg.2024.1335145**](https://doi.org/10.3389/fpsyg.2024.1335145)

Abstract: The results indicate that post-traumatic growth does indeed occur after overcoming the severe form of COVID-19. It suggests that this posttraumatic growth most often occurred through a reassessment of priorities and an appreciation of life itself and loved ones. COVID-19 disease has been one of the most discussed and researched topics for several years, as it dramatically affects everyone's daily life.The qualitative study presented here focuses on health psychology, especially post-traumatic growth after overcoming a severe form of the COVID-19 disease. We worked with adult people who had either been treated in the intensive care unit or had been hospitalized with severe pneumonia. Thematic analysis was used to determine categories and subcategories. The study presented here contributes to knowledge about the COVID-19 experience by mapping a Slovakian sample of adult participants.The results obtained by Thematic analysis help us better understand how people experience the disease, especially those who have overcome a severe form of the disease and thus had a borderline experience when their lives were directly threatened, as well as their overall health.

1. **Zhai, H. K., Li, Q., Hu, Y. X., Cui, Y. X., Wei, X. W., & Zhou, X. (2021). Emotional creativity improves posttraumatic growth and mental health during the Covid-19 pandemic. *Frontiers in psychology, 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.