

POST-TRAUMATIC GROWTH EFFECTS IN SEVERE COVID-19 SURVIVORS: A QUALITATIVE STUDY

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Abstract

The COVID-19 pandemic has led to concerning mortality rates worldwide and long-term health risks for the survivors. COVID-19 patients have endured physical and psychological stress during infection, hospitalization, and recovery. Recent research indicates that some discharged patients exhibit Post-Traumatic Growth (PTG) demonstrating the possibility to flourish despite adversity. Although studies have explored psychiatric outcomes among COVID-19 survivors, few have examined PTG specifically. This research aims to explore former patients' experiences within the post-acute period, in terms of positive long-term post-COVID effects and the role of coping resources in the recovery period. Semi-structured interviews were conducted from November 2022 to April 2023, involving 21 participants (57% female), mean age 64, residing in Romania. All participants were hospitalized for severe COVID-19, from 5 to 32 days. Thematic analysis identified four major themes: (1) Coping strategies - including reframing the experience positively, break the recovery path into manageable actions, self-care, support seeking, and acceptance; (2) Inner Strengths - optimism, actively living life, determination, independence, and experience with hardship helped many participants endure this difficult illness; (3) Changed Life Perspective - including increased compassion, helping others more, and valuing close relationships; (4) Gratitude - the awareness of personal wellbeing's value prompted gratitude and hope for many survivors. Some participants described making concerted efforts to appreciate each new day, others increased prosocial and altruistic behaviors, while others conveyed gratitude to God following the trauma of COVID-19. The findings underscore the factors that contributed to participants' PTG and provide unique insights into the pathways to thriving utilized by former COVID-19 patients. This research contributes to a better understanding of multifaceted post-acute experiences of hospitalized survivors, highlighting avenues through which medical adversity catalyzed enduring positive changes across cognitive, emotional, behavioral, and relational domains.

Keywords: *Post-Traumatic Growth, COVID-19 survivors, positive changes, hospitalization, pandemic.*

1. Introduction

The COVID-19 pandemic has led to high mortality rates and concerning long-term health risks worldwide (World Health Organization, 2024). Former COVID-19 patients have endured physical and psychological stress during infection, hospitalization, and recovery (Del Rio et al., 2020; Higgins et al., 2021; Pan et al., 2021). The pandemic presented challenges in terms of uncertain health conditions, unreliable and confusing information, feelings of helplessness and fear, difficulties in coping, and a strong desire to return to normality (Alkhamees et al., 2020; Raihan, 2021; Suciu & Baban, 2024; Veazie et al., 2022). Despite all this, some discharged COVID-19 patients managed to break through and achieve post-traumatic growth (PTG), showing a tendency to recover from the negative experience (Hyun et al., 2021).

Although studies have explored psychiatric outcomes among COVID-19 survivors, such as affective disorders among COVID-19 survivors (Raihan, 2021; Veazie et al., 2022), few have examined PTG specifically, while using quantitative measures (Landi et al., 2022; Li & Hu, 2022). Recent research indicates that some discharged patients exhibit growth (Qie & Onn, 2023; Hyun et al., 2021), demonstrating the possibility to thrive despite adversity, still, limited knowledge exists regarding the PTG experience after acute illness.

While quantitative data highlights the effects of COVID-19, qualitative methodologies are essential for a comprehensive exploration of survivors' experiences. This research will provide unique insights into positive change process after trauma among COVID-19 survivors, while identifying potential targets for promoting PTG in patient populations facing significant health-related trauma.

Understanding positive psychological outcomes post-hospitalization can guide recovery-oriented interventions for survivors.

The aim of the present research is to explore former severe COVID-19 patients' experiences in the post-acute period, in terms of positive long-term effects, the role of personal traits and coping resources during recovery. Recognizing these potential influencers can guide more effective psychological intervention strategies following public health disasters.

2. Design and methods

2.1. Study design

To address the research aims we conducted a qualitative study using semi-structured one-on-one telephone interview. We included participant who had been (a) hospitalized for severe COVID-19, and who were (b) adults (+18 years).

Participants were recruited through advertisements on social media, snowball sampling, and referrals from physicians. A purposive sample of former Romanian COVID-19 patients (N = 21) was recruited. To minimize risk of bias, we included participants from different regions and hospitals.

2.2. Data collection & analysis

A semi-structured interview guide was used to explore participants' perspectives on the COVID-19 experience, covering the period before, during, and after the illness. The interview guide encompassed queries that explored illness experience, perceptions of the COVID-19 illness, difficulties, coping strategies, personal features, and positive changes. Following each interview, participants were invited to share additional reflections through a final open-ended question. Interviews were conducted from November 2022 to April 2023 with an average duration of 40 minutes. Interviews were audio recorded and transcribed verbatim. We used an inductive approach for the thematic analysis (Braun and Clarke, 2022).

3. Results

Interviews were conducted with 21 participants, with a mean age of 64, all residing in Romania (see Table 1). The medium stay in hospital was 17 days, with 24% of participants having been hospitalized in an Intensive Care Unit. At the time of the interviews, all were discharged.

Table 1. Characteristics of study participants.

| Category | N | Mean (SD) or % |
|-----------------------------|----|------------------|
| Gender (%) | | |
| Male | 9 | 42.9 |
| Female | 12 | 57.1 |
| Other | 0 | 0 |
| Age | | |
| Mean age | 21 | 64.48 (SD=12.85) |
| Marital Status (%) | | |
| Single | 2 | 9.6 |
| Married/living with partner | 13 | 61.9 |
| Divorced | 1 | 4.7 |
| Widow | 5 | 23.8 |
| Education (%) | | |
| Less than Highschool | 5 | 23.8 |
| Highschool | 10 | 47.7 |
| Higher Education | 6 | 28.5 |

Four main themes were identified from the qualitative analysis: (1) Coping strategies; (2) Inner Strengths; (3) Changed Life Perspective; (4) Gratitude.

3.1. Coping strategies

The participants used a range of coping strategies to deal with the short, medium, and long-term effects of COVID-19, and they managed the various challenges of recovering from this potentially life-threatening illness, post-COVID challenges and further grow from it.

Appraisal-focused coping strategies were evident for some of the participants. Some used logical analysis when faced with the symptoms onset and then when it worsened, breaking the recovery process into smaller, more manageable gradual actions to rebuild functioning, such as walking to the window, and

over time walking longer distances outside. Some participants sought to reframe the experience in a positive light, focusing on being grateful for still breathing and surviving rather than lingering fatigue or weakness, and using the experience to further cope with difficulties. As some participants stated: "Nobody's life is perfect. You can make it good, or you can make it bad. It depends on you whether you make it good or make it bad. It's up to what you do." (P.20) "Many times, when I have tougher days at work or in general, I think about my experience with Covid, and I tell myself - Look, it could have been worse, and that gives me the energy to keep going." (P.4)

Many participants engaged in problem-focused strategies like seeking information from doctors or other former patients, about COVID-19 symptoms and recovery actions. Self-care activities like improving diet, exercising within limits, and seeking medical care for persisting symptoms were also utilized. Participants identified alternative rewards to provide a sense of satisfaction despite ongoing limitations. Some focused on achievable tasks like getting dressed or washing a few dishes and emphasized the importance of not dwelling on limitations but finding modified ways to keep living life through adapted activities. Building knowledge, taking practical incremental steps, self-care, and finding other achievable activities helped participants in making tangible improvements during the difficult and often slow recovery process. As one participant described: "What helped me was to go see the doctor. It's good to stay at home for two or three days, and take some cold medicine, but after that, if you see that it's still the same or getting worse, you need to seek out for medical advice otherwise you won't get better." (P.21)

Participants also used emotion-focused coping strategies such as maintaining hope that they would eventually fully recover, or talking to family members, friends, or other survivors about difficult feelings such as fear or sadness. Support and connection from family were emphasized, whether in the form of daily phone calls, having meals brought, or help with chores after discharge. As one participant described: "I believe that family is an important factor to have by your side in challenging situations, communication within the family has helped me primarily, everyone being attentive, including siblings."(P.3)

3.2. Inner strengths

Participants revealed a range of inner strengths and personal resources enabling them to confront the challenges posed by COVID-19 in a constructive manner. Optimism was frequently mentioned, as many described themselves as naturally optimistic people who believed they would recover even during difficult points. This positive attitude motivated health behaviors during illness and recovery, provided motivation to keep fighting. As some participants described: "I am quite spirited, yet also quite well-behaved, and obedient when I'm unwell. I do as I'm told and follow what I believe is right. I've always fought in life, not only with the virus." (P.20) "The character makes the difference, I think it's your own state of being, your character as a person who helps you to overcome or not."(P.3) "I am the most optimistic person you will ever see." (P.4)

A heightened sense of actively living life was evident for some of the participants. Constant busyness reflected an aversion to idleness and a preference for purposeful existence. They perceived the illness as something requiring work to actively regain normalcy. "I am used to be physically active daily. After 15 days in hospital, I couldn't wait to go out and do some activity, so I did all that was in my power just to get well and go home." (P.4)

Some demonstrated profound trust in their ability to handle unexpected challenges. Characterized by perseverance, conscientiousness, and determination, they insisted on completing tasks despite difficulties, working diligently to accomplish goals of getting a little bit better daily, focusing on themselves, leaving in those moments the existence of the loved ones on a second place. Some individuals also described drawing strength from their past life experiences surviving adversity, from wars to serious surgeries, revealing a high level of confidence. Self-reliance and independence were important for some participants in caring for themselves. As one participant describes: "I believe that the old life experiences have helped me. I've been through a lot of life-and-death experiences. If you have hope, you take them as life offers them to you. Dangers? I've been close to them, so I'm not scared of death. I've always had hope that I'll get better, that I won't die. So, I've treated all life experiences in the same way." (P.12)

Overall, optimism, actively living life, determination, independence, and experience with hardship helped many participants endure this difficult illness.

3.3. Changed life perspective

For many participants, confronting the possibility of mortality during severe COVID-19 sparked a reconsideration of one's way of looking at the relationships, with a sense of moral purpose and motivation to extend altruism, empathy, and greater compassion, a greater sense of care and helping behaviors, and a sense of closeness with others. While struggling with adversity, their ability to understand and shoulder the burden of others became amplified. This moral growth was often translated

into action. As some participants stated: "I have learned that people need more attention. And if there was something I could do to make it better, I must make it. I started to think that we can die so easily, and it's important for something to remain after us." (P.20) "We have a 40-years old lady upstairs on the first floor, she has no one, and she broke her ankle. We brought her food cooked from our home, and shopping, without asking her any money, for weeks. This experience made me try to become somewhat better." (P.17)

The same confrontation proved transformative also for some of the closest survivors' relationships. The fragility of existence urged several participants towards solidifying bonds with loved ones and disengaging from other ones. As one participant described: "I've learned to appreciate life more, cherish my loved ones, and cultivate greater tolerance. I've always been the type to lend a helping hand, and that hasn't changed, but I've become more discerning about the people I choose to help. I now navigate my life with a more pragmatic approach and with the focus on the loved ones." (P.3)

3.4. Gratitude

The COVID-19 experience markedly heightened awareness of personal wellbeing's value and prompted gratitude and hope for many survivors. Their awareness of personal health following illness, led to greater gratitude and appreciation for life and health. A tendency to try to greet each morning with a conscious effort to be more present and thankful, appreciate each day, and appreciate the health status was noticed. As one participant described: "In tough times, you truly form some ideas about life. Priority is family, because that's it, and health. About life, it's really like we often read - Live today as if it were the last, seize the moment. At a young age, you don't give it much thought, but as you grow older, you start to appreciate and believe that days should be lived like that, one by one." (P.1)

Survivors' ongoing health appreciation and commitment was evident through continuously adapting to post-illness limitations and preventative attitudes. They emphasized regular check-ups and preventive measures. As one survivor stated, they had never before taken their health so seriously, diligently seeing doctors and caring for their wellbeing. As one participant described: "I was engaging in health check-ups even before, but now going through what I went through, if something doesn't feel right, I take action immediately to seek a doctor." (P.21)

A renewed sense of faith surfaced in the narratives of some participants. As they attributed meaning to their experiences, survivors conveyed gratitude to God for their health, for overcoming the illness, for their loved ones, or for the doctor healing them. Faith and prayer fostered trust, provided encouragement, and instilled a positive belief in favorable outcomes.

4. Discussion and conclusions

This research contributes to a better understanding of the experience of COVID-19, its positive effects, and strategies for adjusting with the new life and health status while thriving after trauma. Thematic analysis has shown the role of coping strategies and inner strengths, while highlighting the positive changes that emerged from the experience.

The COVID-19 illness represented a highly stressful and traumatic event for survivors. Coping with physical, mental, and emotional effects also caused significant difficulties. The use of diverse coping strategies, along with inner strengths like optimism, actively living life, strengths from past experiences, allowed participants to adjust to the trauma of COVID-19. Inner resources such as determination and independence, or trust in their personal ability to handle difficulties facilitated perseverance in health-related behaviors. Appraisal, problem, and emotion-focused coping aided practical improvement and emotional processing. These coping strategies and personal strengths enabled survivors to confront the trauma in a constructive manner. Result in line with previous research where the findings indicated that following a stressor, adaptive coping strategies and inner strengths contribute to PTG (Na et al., 2021; Qie & Onn, 2023; Yan et al., 2021). Following the illness, the confrontation with mortality sparked deep introspection for many participants. This existential pondering led to changed perspectives, including increased compassion, altruism, prosocial behaviors, and valuing of relationships. Priorities were realigned to focus more on loved ones, helping others, and purposeful living. Gratitude and faith were also heightened, with participants thanking and appreciating health, life, and everyday moments more after trauma. These shifts exemplify key PTG outcomes of relating to others differently (including spirituality), establishing new priorities, and appreciating life more deeply. Other research found that religiosity was predictive for PTG in a nurse sample in Hong-Kong (Yeung et al., 2022) and values and committed actions to be related with PTG (Landi et al., 2022).

Overall, the study demonstrates that despite COVID-19's challenges, positive change is possible through coping, inner strengths, and intentionally forging new perspectives while moving forward. Supporting survivors in processing trauma, leveraging strengths, and cultivating gratitude, compassion, and purpose may facilitate thriving. Further qualitative research is needed to advance understanding of PTG following COVID-19. Healthcare providers can apply these findings to promote holistic recovery and growth among survivors.

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