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COVID-19: Optimizing healthcare provider wellness and posttraumatic growth

SARS-2003, H1N1 Influenza 2009, MERS-2012, and now the COVID-2019 pandemic disrupt society in unpredictable ways [1]. Responses to COVID-19 include remote schooling, limited gatherings and suspension of economic activity [2]. Major stressors lead to diverse outcomes, negative and positive. Individuals who lose loved ones, suffer intimate partner violence, serve in violent military operations, and suffer from serious medical conditions can ultimately become *stronger*.

At the opposite side of the spectrum from posttraumatic stress disorder (PTSD), posttraumatic growth (PTG) has been described in healthcare workers (HCWs). Though an ancient idea, growth from adversity began receiving serious research attention in the 1990s [3]. PTG occurs across three domains: self-perception, interpersonal relationships, and life philosophy. Growth emerges in five realms: improvement in relating to others, greater personal strength, positive spiritual change, greater appreciation of life, and discovering new possibilities [3]. A systematic review found that 53% of individuals who endure trauma experienced PTG [4], enjoying greater life satisfaction, happiness, psychological, emotional, and even physical wellbeing [5].

Predictors of PTG include active coping, self-control, higher education level, hope, social support, and deliberate rumination (making sense of the trauma) [4,6]. Moderate to high PTG occurs more commonly in women, younger subjects, and professionals with training [4]. Personality characteristics that predict PTG include extroversion and openness to experience [7]. Individuals experiencing a stressful or traumatic event should adopt a growth mindset, reflect on their experiences, and believe in human resilience.

HCWs have experienced substantial negative mental health effects during COVID-19. Though nurses and women may be more susceptible to acute psychological stress [8-10], they have the most growth potential. A PTG intervention in HCWs in China led to pronounced benefits in nurses and women [11]. Individuals living in affected geographic regions, and those on the frontline, may be at higher risk of negative emotional effects [12,13]. Interestingly, other studies have demonstrated the opposite: frontline HCWs with lower levels of distress [14,15].

While COVID-19 has already resulted in negative outcomes for HCWs, individuals can still strive for greater appreciation of life, improved self-esteem, and positive approaches to daily responsibilities [16]. After SARS 2003, respondents in Hong Kong reported increased care for family, more focus on mental health, and more time devoted to relaxation [17]. Effective practices reframe stressful events to help one find meaning in hardships. In constructing a coherent narrative, one transforms uncontrolled rumination into a "more deliberate, reflective form of thinking" [7].

Prior to COVID-19, half of physicians experienced emotional fatigue, burnout, depression and suicide [18]. COVID-19 has added new physical

and psychological pressures that will ripple through the entire healthcare system [19]. According to a recent review of publications on healthcare workers in COVID-19, the number one way to reduce stress levels was provision of safeguards to prevent transmission [20]. HCWs should only reuse PPE as a last resort, which is associated with higher rate of infection [21]. While Telehealth requires resources for planning, implementing, and evaluating, it limits nonessential exposure to infected patients and allows for convenient mental healthcare for providers.

Despite obvious obstacles, HCWs must maintain social connections, which improve health outcomes [22]. HCWs should schedule calls and video chats with friends and family, reinforcing community roles. Outreach especially benefits those who struggle in isolation. Prompt, individualized psychological support is vital. Drop-in sessions with mental health professionals showed benefit in one Toronto hospital during the SARS-CoV-1 outbreak [23]. Leaders should reduce stigma for those who access these resources, as HCWs may not seek professional help due to perceived impact on career opportunities [24].

Healthcare administrators could implement wellness initiatives to provide physical and mental growth opportunities. Strength conditioning, aerobic work, and high intensity interval training provide direct physiologic long-term health benefits [25]. A nutritious whole foods (unprocessed) diet, with proper intake of micronutrients, becomes even more important during an infectious outbreak. A healthy diet improves energy, brain functioning, mobility, and immunity [26]. HCWs have experienced poor sleep during COVID-19 [27]. Adequate sleep regulates emotions and overall mental health, along with strengthening the immune system [28] [29]. Mindfulness interventions facilitate self-awareness and presence, with studies repeatedly demonstrating positive effects of meditation on sleep and other mental and physical health outcomes [30].

The COVID-19 worldwide pandemic continues to challenge billions of people, with healthcare workers especially vulnerable. Maintaining wellness during COVID-19 requires solidarity and civic mindedness [31]. Rather than downplaying the appropriate stress and fear from COVID-19, this discussion of PTG intends to empower HCWs. We must actively reflect, utilize coping skills, and approach our lives with positive mindsets. We can educate patients on PTG as we help them navigate the fear and tangible damage from the pandemic. We can embrace the potential enhancement stress can have on overall health, harnessing opportunities to learn from our experiences and achieving PTG [32].

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Declaration of Competing Interest

None.

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