

ENHANCING EMOTIONAL RESILIENCE THROUGH AGE- APPROPRIATE SLEEP HOURS

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ABSTRACT

The COVID-19 pandemic as a public health issue has spread to the rest of the world. Although the wellbeing and emotional resilience of healthcare professionals are key components of continuing healthcare services during the COVID-19 pandemic, healthcare professionals have been observed in this period to experience serious psychological problems and to be at risk in terms of mental health. Therefore, this study aims to probe psychological resilience of healthcare workers. Psychological resilience remains a key factor in sustaining healthy emotional functioning during the crisis and facilitating rapid recovery as we move forward to build a better post-pandemic world. Our research, and that of others, suggests that healthy sleep is one of the most powerful aspects of psychological resilience. Psychological resilience levels of healthcare workers in their later years were found to be higher. Doctors constitute the group with the lowest levels of psychological resilience among healthcare workers. The current study is considered to have contributed to the literature in this regard. Primary needs such as sleep which are determinants of quality of life, life satisfaction and psychological resilience should be met.

Keywords: Pandemic, Psychological Resilience, Positive And Negative Effects, Life Satisfaction, Healthcare Professionals

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INTRODUCTION

Resilience is a key factor for protecting and sustaining healthy psychological functioning after exposure to stress and trauma. The first year of the pandemic has resulted in significant increases in a number of mental health problems, including increased anxiety, depression, suicidal ideation, and alcohol abuse, among others.¹ Despite the general increases in mental health problems during the pandemic, there has also been considerable variability in the magnitude of these effects, suggesting that many people have demonstrated remarkable resilience in the face of uncertainty and adversity. It is critical that we identify the factors that have contributed to these positive outcomes. Furthermore, as the recovery continues, we need to identify methods for bolstering resilience and protecting individuals against future adversities. Previous research has shown that sleep is a vital component of resilience and is significantly related to mental health outcomes. However, sleep was one of the major health outcomes that was negatively impacted during the pandemic, potentially hampering resilience in many people. In this article, we will discuss the relationship between resilience and psychological outcomes before and during the COVID-19 pandemic, with particular focus on sleep as a key contributor to resilience and mental health outcomes.

For centuries, folk theory has promoted the idea that positive emotions are good for your health. Accumulating empirical evidence is providing support for this anecdotal wisdom. We use the *broaden-and-build theory* of positive emotions ([Fredrickson, 1998; 2001](#)) as a framework to demonstrate that positive emotions contribute to psychological and physical well-being via more effective coping. We argue that the health benefits advanced by positive emotions may be instantiated in certain traits that are characterized by the experience of positive emotion. Towards this end, we examine individual differences in *psychological resilience* (the ability to bounce back from negative events by using positive emotions to cope) and *positive emotional granularity* (the tendency to represent experiences of positive emotion with precision and specificity). Individual differences in these traits are examined in two studies, one using psychophysiological evidence, the second using evidence from experience sampling, to demonstrate that positive emotions play a crucial role in enhancing coping resources in the face of negative events.

GENERAL SYNOPSIS

According to Psychologists, there are four types of Intelligence:

- 1) Intelligence Quotient (IQ)
- 2) Emotional Quotient (EQ)
- 3) Social Quotient (SQ)
- 4) Adversity Quotient (AQ)

1. ***Intelligence Quotient (IQ)***: this is the measure of your level of comprehension. You need IQ to solve math, memorize things, and recall lessons.ⁱⁱ

2. ***Emotional Quotient (EQ)***: this is the measure of your ability to maintain peace with others, keep to time, be responsible, be honest, respect boundaries, be humble, genuine, and considerate.ⁱⁱⁱ

3. ***Social Quotient (SQ)***: this is the measure of your ability to build a network of friends and maintain it over a long period of time. People that have higher EQ and SQ tend to go further in life than those with a high IQ but low EQ and SQ. Most schools capitalize on improving IQ levels while EQ and SQ are played down. A man of high IQ can end up being employed by a man of high EQ and SQ even though he has an average IQ. Your EQ represents your Character, while your SQ represents your Charisma. Give in to habits that will improve these three Qs, especially your EQ and SQ.^{iv}

Now there is a 4th one, a new paradigm:

4. ***The Adversity Quotient (AQ)***: The measure of your ability to go through a rough patch in life and come out of it without losing your mind. When faced with troubles, AQ determines who will give up, who will abandon their family, and who will consider suicide. Hence, from early childhood, parents please expose your children to other areas of life than just Academics. They should adore manual labour (never use work as a form of punishment), Sports and Arts. Develop their IQ, as well as their EQ, SQ and AQ. They should become multifaceted human beings able to do things independently of their parents. Finally, our synopsis prognoses that do not prepare the road for your children. Prepare your children for the road.^v Margaret Mead once stated in a beautiful metaphor that, "*Children must be taught how to think, not what to*

think^{vi}.... This magnificent saying explains us the role of a ward's thinking power to decide what is most comfortable, if not the best for them! Nonetheless, in oriental and somewhat anachronistic societies, children development is often considered a liability, and this attitude of their caretakers (mostly parents) becomes circumvent to the development of their mind-set's, thinking power and the ability to choose. Unlike the Western World, where a child partakes in nearly every inch of a development in their dwelling, with proper confidence levels been granted to them through their modest interactions with the society, often since preschool days. Such an amazing treatment develops the very mind-set of a genuinely enabled human being, who can do wonders from a drastically young age. Regrettably, many countries of Asia, Sub-Saharan Africa, and the Far East, do not comply with norms, which can enable a ward's personality to pick/choose or render high quality achievement. In a statistical survey completed by the United Nations, it was revealed, albeit impoverished, mal-nutritioned and ill resourced, the children of these regions are much more brilliant, intelligent, and obedient to their elders. Yet, sufferings caused due to the denial of choice, often deprives these kids from displaying their God-Gifted skills.

Several mediating factors are linked with stress and mental health. For instance, poor sleep has a well-known bidirectional relationship with depression and anxiety.(Bartlett and Jackson, 2016) Indeed, disrupted routines during the pandemic has resulted in significant changes in sleep.(Blume et al., 2020; Wright et al., 2020) Consequently, reduced sleep quantity and quality during the pandemic is related to poor mental health outcomes.(Ernstsen and Havnen, 2020; Janati Idrissi et al., 2020) Poor sleep can degrade neurocognitive functioning, impacting mood and emotion

regulation.(Konjarski et al., 2018; Palmer and Alfano, 2017) Factors such as a previous psychiatric diagnosis, isolation, financial distress, hopelessness, loneliness and uncertainty due to COVID-19 outbreaks can also increase the risk of psychiatric conditions and suicide.(Killgore et al., 2020a; Serafini et al., 2020; Xin et al., 2020; Serafini et al., 2012) In contrast, resilience and perception of social support can be protective against psychiatric disorders.(Serafini et al., 2020) Psychological resilience – a construct representing ability to withstand set-backs and adapt positively in the face of adversity(Luthar and Cicchetti, 2000) – is linked to better mental health outcomes during the pandemic.(Killgore et al., 2020b) It appears that both sleep and resilience are modifiable factors, with the latter associated with

more daily exercise and perceived social support. (Killgore et al., 2020b) Examining their influence can help design and implement public health strategies that directly addresses these modifiable, mediating factors.

While recognizing mediating factors is the key to developing a consistent public health approach, understanding whether some groups are more vulnerable will help with targeted treatments. For instance, the social, economic, and psychological effects of the pandemic may disproportionately impact different age groups. Early evidence from the UK, US, Korea and Australia indicates that younger people have had the greatest increase in rates of psychological distress during the pandemic.(McGinty et al., 2020; Pierce et al., 2020; Rossell et al., 2020; Jung et al., 2020) On the other hand, older adults may also be at risk of poor mental health outcomes as a result of isolation and anxieties about infection risk, particularly those with comorbid health conditions or cognitive impairment.(World Health Organization, 2020) As we move through different phases of the pandemic, identifying vulnerable age-groups will help us modify and design better treatments. Such information is paramount to inform intervention strategies to assist in reducing the psychological burden of the pandemic in the months and years to come.

While country-specific prevalence of mental health issues has been reported previously, this study aimed to

- 1) examine levels of perceived stress, anxiety, and depression during the pandemic between different countries;
- 2) explore the factors that mediate the relationship between stress and poor mental health (i.e., anxiety and depression); and
- 3) determine whether certain age groups are differentially affected by the pandemic in terms of depression, anxiety, stress, resilience, and sleep quality. Specifically, it is hypothesized that younger age groups will be more adversely affected during the pandemic.

Self-Care

Although robust tests of efficacy are scarce, physical activity has shown promising effects on decreasing rates of burnout in clinicians.^{vii} A clinical trial examining the effects of a 12-week incentivized physical exercise program in physician trainees has shown improvement in

burnout scores as compared with controls. In addition, the study showed significant improvement in quality of life as measured by a validated single-item linear self-assessment scale.^{viii}

Good sleep hygiene is an important measure in burnout prevention and promoting personal resilience.^{ix} Disruption to the circadian rhythm causes short and long-term consequences including sleep disturbance and daytime somnolence.^x Impairment of logical reasoning and reduced vigilance secondary to sleep restriction is significant for healthcare workers given technical expertise and rapid decision-making are necessary for patient safety.^{xi} Notably, sleep deprivation is implicated in increased medical error rate, interpersonal conflicts and reduced peak performance.^{xii}

Regarding social support, evidence suggests that clinicians who have strong meaningful relationships, both personally and professionally, are happier and at lower risk of burnout; whereas those with greater work-home interference are more likely to suffer burnout.^{xiii} At the individual level, cultivating meaningful relationships and a solid social network is important; however, this is interdependent on organizational factors that facilitate a work-life balance and professional connectedness.^{xiv}

Altruism is discussed in resilience literature as a protective psychological quality.^{xv} Similarly, finding meaning and value in one's work is shown to be associated with less burnout in clinicians.^{xvi} Developing self-awareness is a way in which clinicians can find meaning in work through reflective practice and small group discussions.^{xvii} A Norwegian cohort study of 227 doctors looking at burnout dimensions pre- and post-preventative counselling showed a significant reduction in emotional exhaustion at 1 and 3 years following the intervention.^{xviii} Emotional exhaustion is one of three dimensions in the Maslach burnout inventory, a 22-item measure of three dimensions of burnout which also includes depersonalization and personal accomplishment. The intervention was reflective counselling undertaken either individually as one session or in small group sessions over 1 week.^{xix} A randomized clinical trial conducted by West et al. looked at the effect of facilitated physician discussion groups on well-being.^{xx} The 1-hour weekly sessions were held over 9 months and incorporated mindfulness, reflection, shared experience, and small group learning intended to promote collegiality and improve meaning in work. The trial showed significant burnout reduction, predominantly in the domain

of depersonalization. Schwartz rounds are another intervention which may help with finding meaning in one's work. They are an evidence-based forum for healthcare staff to speak about the emotional and social challenges they face. The purpose is to share emotional professional experiences, focus on positive aspects and reinforce a sense of purpose.^{xxi} Sharing stories of success can help clinicians find joy amidst chaos.^{xxii} Group-based activity participation has the added benefit of increasing professional connectedness.^{xxiii}

Mindfulness practice and stress management approaches are two emotional health interventions with evidence of efficacy and measurable outcomes for reducing burnout and promoting resilience in clinicians.^{xxiv} Mindfulness is the awareness that arises from purposeful, non-judgmental attention to the present moment.^{xxv} Standardized mindfulness-based stress reduction interventions that have efficacy in physicians consist of intensive group programs over eight weeks combining meditation, yoga, and group discussion.^{xxvi} Utility of such programs may be unfeasible for logistic reasons, including competing clinical needs, and lack of time and money.^{xxvii} However, benefit has been shown through other forms of mindfulness interventions, including a mindful communication program and online mindfulness modules^{xxviii}

CONCLUSION

Sleep problems are a major risk factor for the emergence of mental health problems in adolescence. The aim of this study was to investigate the post intervention effects of a cognitive-behavioral/mindfulness-based group sleep intervention on sleep and mental health among at-risk adolescents. Method: A randomized controlled trial (RCT) was conducted across High schools in Melbourne, Australia. One hundred forty-four adolescents (aged 12–17 years) with high levels of anxiety and sleeping difficulties, but without past or current depressive disorder, were randomized into either a sleep improvement intervention or an active control 'study skills' intervention. Both programs consisted of 7 90-min-long group sessions delivered over 7 weeks. One hundred twenty-three participants began the interventions (female = 60%; mean age = 14.48, SD = 0.95), with 60 in the sleep condition and 63 in the control condition. All participants were required to complete a battery of mood and sleep questionnaires, 7 days of wrist actigraphy (an objective measure of sleep), and sleep diary entry at pre- and-post

intervention. Results: The sleep intervention condition was associated with significantly greater improvements in subjective sleep (global sleep quality [with a medium effect size], sleep onset latency, daytime sleepiness [with small effect sizes]), objective sleep (sleep onset latency [with a medium effect size]), and anxiety (with a small effect size) compared with the control intervention condition. The SENSE study provides evidence that a multicomponent group sleep intervention that includes cognitive-behavioral and mindfulness-based therapies can reduce sleep initiation problems and related daytime dysfunction, along with concomitant anxiety symptoms, among at-risk adolescents.

IMPACT STATEMENT

What is the public health significance of this article?—Given the high prevalence of adolescent sleep and internalizing problems, the implications of an effective adolescent sleep intervention for clinical practice and public policy are potentially significant. However, changing sleep behavior, especially objective measures, in this age group has been challenging. This paper shows that the Sleep-SENSE program can improve objective and subjective indices of sleep, as well as anxiety symptoms, when compared with an active control intervention. Furthermore, the program is likely to be cost-effective—it involves a simple screening process and a group intervention format—and could be disseminated to a wide range of clinical and nonclinical settings in primary care, mental health, adolescent health, and sleep medicine, and may assist in the treatment and prevention of adolescent sleep and mental health problems. The intervention also lends itself to flexible modes of delivery (e.g., non-specialist practitioners, group settings, individual settings, school based, Internet, and other e-health modes of delivery), further enhancing its translational potential.

ENDNOTES

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