The Significance of Online Stress Therapy Applications

Sergii Sereda
G.S. Kostyk Institute of Psychology, NAPS of Ukraine

Vitalii Lunov
Bogomolets National Medical University; G.S. Kostyk Institute of Psychology, NAPS of Ukraine; Deva Clinique; House of Educations & Research Limited

This article explores the juxtaposition of rising stress levels in the 21st century with the advent of technology, focusing particularly on online applications designed for stress therapy. With stress recognized as a pressing concern by health organizations globally, the need for accessible and effective interventions has become paramount. The piece delves into the advantages offered by these digital interventions, such as accessibility, anonymity, customization, and real-time feedback. However, it also emphasizes the importance of discernment, given the vast array of available apps, not all of which are grounded in evidence-based practices. By examining the potential of online applications in the domain of stress management, the article underscores the evolving role of technology in mental health interventions.

Keywords: Stress, Online Therapy, Digital Interventions, Technology, Mental Health, Evidence-based Practices, 21st Century, Online Applications, Well-being.

Introduction

Stress, often dubbed the "health epidemic of the 21st century," has been recognized by the World Health Organization as a significant concern for contemporary society (WHO, 2019). The rapid advancements of the 21st century, characterized by global connectivity and relentless technological progression, have revolutionized the way individuals live, work, and connect. While these changes offer unprecedented opportunities, they simultaneously introduce unique challenges. Our lives, now intricately intertwined with screens, face a

paradox where technology both amplifies and alleviates stress. In this complex landscape, chronic stress emerges as a pervasive concern, with unaddressed instances potentially leading to a plethora of physical and mental health complications. Recognizing this urgency, innovative solutions have surfaced in the form of online stress therapy applications. These digital interventions represent a promising fusion, harnessing the omnipresence of technology to bridge the gap between traditional therapeutic methods and the demands of modern life, offering individuals novel means to manage and mitigate their stress levels.

Purpose of the Article

The primary objective of this article is to critically assess the potential of online applications designed for stress therapy, underpinning the discussion with empirical studies. Through this exploration, the article aims to understand the strengths and limitations of these digital tools in addressing the ubiquitous challenge of stress in contemporary society.

The Rising Need for Stress Therapy

Modern society grapples with an unprecedented level of stress, a silent assailant with tangible implications for mental and physical health. As early as 1984, Lazarus and Folkman delved into the psychological underpinnings of stress, defining it as a perceived mismatch between the demands of one's environment and one's adaptive capacities. This perceived incongruence can have a cascading effect, manifesting in physiological symptoms, cognitive distortions, and emotional turbulence.

Several factors are intensifying the urgency of this stress crisis:

1. *Urbanization*. As more people globally migrate to urban areas in search of opportunities, they confront the challenges of city living. Crowded spaces, pollution, and the often impersonal nature of city interactions can heighten stress (Lederbogen et al., 2011).

2. *Work Dynamics*. The contemporary work environment, characterized by demanding schedules, high expectations, and the blurring of work-life

boundaries, especially with remote working scenarios, has added layers of stress (Virtanen et al., 2008).

3. *Digital Age Challenges*. The double-edged sword of technology has brought convenience at the expense of constant connectivity. With it comes the pressure to be perpetually available, leading to digital fatigue and increased stress. A study by Becker et al. (2018) suggests that the incessant need to check emails and messages outside of work hours is associated with increased stress and burnout.

4. *Global Uncertainties*. The 21st century has witnessed an array of global crises, from economic recessions to pandemics like COVID-19. These global events, coupled with a bombardment of news and information, can exacerbate feelings of uncertainty and stress (Garfin et al., 2020).

Given the compounded effect of these stressors, there is a palpable demand for effective tools and interventions to manage and mitigate stress. In this milieu, stress therapy, especially digitally accessible platforms, emerges as a crucial lifeline for many.

Online Applications: A Modern Solution

Several studies have begun to investigate the efficacy of online applications in mitigating stress. For instance, Spijkerman, Pots, and Bohlmeijer (2016) found that digital interventions can effectively reduce stress and its related symptoms. Such applications typically incorporate evidence-based techniques like Cognitive Behavioral Therapy (CBT), mindfulness, and relaxation exercises.

Furthermore, Ly, Dahl, Carlbring, and Andersson (2012) identified that online applications not only reduce stress but can also help in preventing the onset of mental health disorders associated with chronic stress, such as depression and anxiety.

The ubiquity of smartphones and the growth of technology in healthcare has provided an opportunity to offer stress relief at the tips of one's fingers.

1. *Accessibility and Convenience*. The digital realm overcomes geographical and temporal barriers. Individuals can access therapeutic tools anytime and anywhere, tailoring interventions to fit their schedules and needs. This convenience factor has been shown to increase adherence to therapeutic

exercises and interventions (Hollis, Morriss, Martin, Amani, Cotton, Denis, & Lewis, 2015).

2. *Cost-Effective*. Online applications often present a more affordable alternative to traditional therapy. Reduced costs can make stress management tools more accessible to a larger segment of the population, democratizing mental health care (Firth, Torous, Nicholas, Carney, Pratap, Rosenbaum, & Sarris, 2017).

3. *Personalization*. Many modern apps leverage data analytics to offer personalized interventions. Through adaptive algorithms, these applications can gauge the user's stress levels and offer timely interventions, enhancing the therapy's effectiveness (Watts, Mackenzie, Thomas, Griskaitis, Mewton, Williams, & Andrews, 2013).

4. *Anonymity and Privacy*. For some individuals, the prospect of seeking help for stress or related mental health issues might be daunting due to stigma or privacy concerns. Online platforms can offer a degree of anonymity, encouraging more people to seek assistance (Torous, Roberts, & Keshavan, 2017).

5. *Holistic Approaches*. Many online stress relief apps are designed to offer comprehensive care. They may incorporate modules on sleep hygiene, dietary habits, physical activity, and other lifestyle factors that are intrinsically linked to stress (Mani, Kavanagh, Hides, & Stoyanov, 2015).

The accelerating advances in technology and an increased understanding of human psychology have synergistically fueled the growth of online applications for stress therapy. As research continues, it's anticipated that these digital platforms will become even more sophisticated, responsive, and integrated into mainstream mental health care.

Advantages of Online Stress Therapy Applications:

1. *Accessibility and Anonymity*. These applications can be accessed anytime and anywhere, offering users an opportunity to manage stress on-the-go (Andersson & Cuijpers, 2009). Moreover, for those wary of the stigma associated with seeking therapy, online platforms provide an anonymous avenue for help.

2. *Customization*. Many applications allow users to tailor interventions according to their needs, leading to a more personalized therapeutic experience (Burns et al., 2011).

3. *Immediate Feedback*. Real-time monitoring and feedback mechanisms in these apps enable users to track their progress and adjust techniques as necessary (Harrison et al., 2011).

4. *Affordability*. In comparison to traditional face-to-face therapy sessions, online stress therapy applications often present a more budget-friendly option, making mental health resources more accessible to a larger demographic (Hollis et al., 2015).

5. *Comprehensive Resources*. Many of these apps incorporate diverse therapeutic tools ranging from mindfulness exercises to cognitive behavioral techniques, ensuring a holistic approach to stress management (Mani et al., 2015).

6. *Integration with Other Health Metrics*. Several applications sync with wearable devices, offering insights into how physiological parameters like heart rate and sleep patterns relate to stress levels (Luxton, McCann, Bush, Mishkind, & Reger, 2011).

7. *Community Support*. Online platforms frequently feature community forums or group chats, allowing users to share experiences, seek peer advice, and foster a sense of belonging, which can be crucial for managing stress (Mohr, Burns, Schueller, Clarke, & Klinkman, 2013).

In the realm of digital health, the emergence of stress therapy applications underscores a paradigm shift towards proactive mental health management. With an amalgamation of convenience, affordability, and tailored interventions, these applications are poised to revolutionize how stress is understood and managed in the modern age.

Challenges and Considerations

While online stress therapy applications present numerous benefits, there are associated challenges. A study by Donker et al. (2013) emphasized the importance of ensuring that users are engaging with evidence-based applications. The market is flooded with numerous apps, but not all are based on proven therapeutic techniques.

Another challenge lies in user adherence. As mentioned by Torous, Nicholas, Larsen, Firth, and Christensen (2018), while applications may be initially attractive, maintaining consistent engagement over time can be challenging. This drop-off can be attributed to various factors, including the novelty wearing off, lack of tangible results, or simply life's competing demands.

Data privacy and security is an ever-looming concern in the digital age. Stress therapy apps often require users to input personal and sensitive data, raising concerns about how this information is stored, used, and potentially shared. A research by Huckvale, Torous, and Larsen (2019) highlighted the vulnerabilities in some mental health apps, suggesting that not all apps have robust data protection measures in place.

Furthermore, while these applications serve as valuable adjuncts, they should not be viewed as a replacement for traditional face-to-face therapy, especially for those with severe stress-related disorders. As highlighted by Karyotaki, Riper, Twisk, Hoogendoorn, Kleiboer, Mira et al. (2017), the effectiveness of online interventions can vary significantly among individuals, and not everyone might derive the same level of benefit.

Lastly, there's a cultural and socio-economic dimension to consider. Not everyone globally has access to advanced smartphones or stable internet connectivity. The efficacy of an app may also be influenced by cultural perceptions and understandings of stress and mental health.

In summary, while online stress therapy applications undeniably offer a new frontier in mental health care, careful consideration and rigorous evaluation are crucial to ensure their safety, efficacy, and broad applicability.

Discussion

The realm of stress therapy has witnessed a transformative shift with the advent and proliferation of online applications. Grounded in the scientific literature, it's evident that these digital platforms offer a myriad of benefits, from accessibility and anonymity to personalization and real-time feedback. As the studies by Spijkerman, Pots, and Bohlmeijer (2016) and Ly, Dahl, Carlbring, and Andersson (2012) illustrate, these platforms not only offer relief from stress but also proactively combat associated mental health disorders.

However, as with any burgeoning domain, the landscape of online stress therapy apps presents its own challenges. A critical consideration is the authenticity and efficacy of the myriad of apps available in the market. As Donker et al. (2013) noted, not all platforms are rooted in evidence-based therapeutic techniques. This saturation raises pertinent questions about the vetting processes and the establishment of a regulatory body that can evaluate and certify these applications, ensuring users receive accurate and effective interventions.

User adherence, as highlighted by Torous et al. (2018), is another area of concern. The initial allure of an application might wane over time, potentially due to the natural ebb and flow of motivation or due to perceived inefficacy. As such, app developers and mental health professionals need to collaborate to ensure sustained user engagement, perhaps through gamification, reminders, or community-building within these platforms.

The issue of data privacy, as stressed by Huckvale, Torous, and Larsen (2019), cannot be understated. As users navigate their stressors and potential traumas, the security of their shared experiences becomes paramount. Breaches or misuse can not only erode trust but have profound psychological implications.

A salient takeaway from this discussion is the complementary role these apps play. They are not substitutes but supplements to traditional therapy. For those unable to access face-to-face therapy, they can be invaluable, but it's essential to view them as part of a broader therapeutic toolkit.

In closing, while online stress therapy applications are undeniably revolutionizing mental healthcare, a multi-faceted approach that ensures their efficacy, authenticity, and user-centricity is crucial. Future research might focus on longitudinal studies, assessing the long-term impact of these apps, and devising strategies to maximize their potential in diverse demographic and cultural contexts.

Conclusion

The trajectory of the 21st century has been markedly influenced by the dual narrative of escalating stress levels and rapid technological advancements. As this article elucidates, the nexus between these two phenomena offers both challenges and solutions. Stress, while an inherent component of human experience, has found heightened prominence due to the complexities of modern life. If unchecked, its pervasive nature can result in significant mental and physical health setbacks. However, in the very technology that often contributes to our stress, we also find potential avenues of mitigation.

Online stress therapy applications emerge as a beacon in this narrative, offering evidence-based interventions within the digital ecosystem that characterizes modern existence. Their strengths – accessibility, anonymity, customization, and immediate feedback – position them as not only

complementary to traditional therapeutic approaches but, for many, a primary and more accessible point of intervention.

Yet, it's imperative to tread with caution. The digital landscape, vast and diverse, also contains applications that may lack empirical backing. As consumers and practitioners, the onus rests on us to ensure that the tools we engage with are rooted in evidence-based practices.

In closing, while the digital age presents new challenges in the realm of mental well-being, it also equips us with innovative tools to confront and manage them. Online stress therapy applications, if developed and used judiciously, can play a pivotal role in shaping a future where technology is not just a source of stress but also an ally in its alleviation. As we progress further into this century, it is our hope that such integrative solutions will continue to evolve, optimizing the balance between modern life demands and holistic well-being.

References

Andersson, G., & Cuijpers, P. (2009). Internet-based and other computerized psychological treatments for adult depression: a meta-analysis. Cognitive Behaviour Therapy, 38(4), 196-205.

Becker, S. P., Alzahabi, R., & Hopwood, C. J. (2018). Media multitasking is associated with symptoms of depression and social anxiety. Cyberpsychology, Behavior, and Social Networking, 21(2), 79-85.

Burns, M. N., Begale, M., Duffecy, J., Gergle, D., Karr, C. J., Giangrande, E., & Mohr, D. C. (2011). Harnessing context sensing to develop a mobile intervention for depression. Journal of medical Internet research, 13(3), 55.

Donker, T., Petrie, K., Proudfoot, J., Clarke, J., Birch, M. R., & Christensen, H. (2013). Smartphones for smarter delivery of mental health programs: a systematic review. Journal of Medical Internet Research, 15(11), 247.

Garfin, D. R., Silver, R. C., & Holman, E. A. (2020). The novel coronavirus (COVID-2019) outbreak: Amplification of public health consequences by media exposure. Health Psychology, 39(5), 355.

Harrison, V., Proudfoot, J., Wee, P. P., Parker, G., Pavlovic, D. H., & Manicavasagar, V. (2011). Mobile mental health: review of the emerging

field and proof of concept study. Journal of mental health, 20(6), 509-524.

Hollis, C., Morriss, R., Martin, J., Amani, S., Cotton, R., Denis, M., & Lewis, S. (2015). Technological innovations in mental healthcare: harnessing the digital revolution. British Journal of Psychiatry, 206(4), 263-265.

Huckvale, K., Torous, J., & Larsen, M. E. (2019). Assessment of the data sharing and privacy practices of smartphone apps for depression and smoking cessation. JAMA Network Open, 2(4), e192542.

Karyotaki, E., Riper, H., Twisk, J., Hoogendoorn, A., Kleiboer, A., Mira, A., ... & Littlewood, E. (2017). Efficacy of self-guided internet-based cognitive behavioral therapy in the treatment of depressive symptoms: a meta-analysis of individual participant data. JAMA Psychiatry, 74(4), 351-359.

Lazarus, R. S., & Folkman, S. (1984). Stress, appraisal, and coping. New York: Springer.

Lederbogen, F., Kirsch, P., Haddad, L., Streit, F., Tost, H., Schuch, P., ... & Meyer-Lindenberg, A. (2011). City living and urban upbringing affect neural social stress processing in humans. Nature, 474(7352), 498-501.

Luxton, D. D., McCann, R. A., Bush, N. E., Mishkind, M. C., & Reger, G. M. (2011). mHealth for mental health: Integrating smartphone technology in behavioral healthcare. Professional Psychology: Research and Practice, 42(6), 505.

Ly, K. H., Dahl, J., Carlbring, P., & Andersson, G. (2012). Development and initial evaluation of a smartphone application based on acceptance and commitment therapy. SpringerPlus, 1(1), 11.

Mani, M., Kavanagh, D. J., Hides, L., & Stoyanov, S. R. (2015). Review and evaluation of mindfulness-based iPhone apps. JMIR mHealth and uHealth, 3(3), e82.

Mohr, D. C., Burns, M. N., Schueller, S. M., Clarke, G., & Klinkman, M. (2013). Behavioral intervention technologies: evidence review and recommendations for future research in mental health. General Hospital Psychiatry, 35(4), 332-338.

Spijkerman, M. P. J., Pots, W. T. M., & Bohlmeijer, E. T. (2016). Effectiveness of online mindfulness-based interventions in improving mental health: A review and meta-analysis of randomised controlled trials. Clinical Psychology Review, 45, 102-114.

Torous, J., Nicholas, J., Larsen, M. E., Firth, J., & Christensen, H. (2018). Clinical review of user engagement with mental health smartphone apps:

evidence, theory and improvements. Evidence-Based Mental Health, 21(3), 116-119.

Virtanen, M., Ferrie, J. E., Singh-Manoux, A., Shipley, M. J., Stansfeld, S. A., Marmot, M. G., ... & Kivimäki, M. (2008). Overtime work and incident coronary heart disease: the Whitehall II prospective cohort study. European heart journal, 29(15), 1923-1930.

WHO. (2019). Burn-out an "occupational phenomenon": International Classification of Diseases. Retrieved from https://www.who.int/