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CRISPR- A DISRUPTIVE INNOVATION IN BIOTECHNOLOGY AND GENETICS	51 – 53
Ms. Ketaki Walimbe	
CULTURED MEAT- THE FOOD OF THE FUTURE	54 – 58
Juii Dicholkar	
DESTRUCTIVE PRACTISE IN HOSPITALITY MANAGEMENT ONLINE FOOD DELIVERY PLATFORMS, A DESTRUCTIVE PRACTISE FOR TRADITIONAL RESTAURANT SERVICES	59 – 62
Sruthi Sunil Nair	
DISORDERING PAPER LEARNING: WIKIPEDIA AS A DISRUPTIVE INNOVATION	63 – 67
Ms. Vishakha Patil and Prof. (Dr.) Preeti Nilesh	
DISRUPTION OF TV CAUSED BY OTT PLATFORMS	68 – 74
Sanjana Khatri and Sanskruti Malvade	
DISRUPTIVE INNOVATION IN ENTERTAINMENT INDUSTRY	75 – 79
Ms. Sharvari Avinash Dalal and Mr. Vicky Ramesh Shetty	
DISRUPTIVE INNOVATION IN HIGHER EDUCATION	80 – 88
Ms Geeta Kale and Ms Bhagyashree Tendolkar	
DISRUPTIVE INNOVATION IN THE CAMERA INDUSTRY	89 – 94
Charvak Naik	
ROLE OF GOLD & SILVER NANOPARTICLES IN COSMETICS	95 – 98
Ms. Sulochana B. Parkar and Ms. Yojana P. Kadam	
DISRUPTIVE STRATEGY: USE OF MOBILE-MEDITATION APP DURING COVID -19	99 – 102
Ms Reeta Kamble and Dr. Parmeshwar Abhiman Puri	
E LEARNING: DIGITALIZATION OF PEDAGOGY IN EDUCATION SYSTEM	103 – 106
Amey Arvek Kulkarni and Abhijay Sujitkumar Kandi	
EYE BLINK DETECTION IN CAR USING PYTHON	107 – 108
Snehal Saurabh Rane	
RESEARCH PAPER ON RELIANCE JIO INFOCOMM LTD.	109 – 116
Shriniwas Shrikant Bhawe	
ONLINE CLOTHING RENTAL PORTAL AS A DISRUPTIVE INNOVATION IN CLOTHING INDUSTRY AND SUSTAINABLE FASHION	117 – 120
Akshaya Raju	



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DISRUPTIVE STRATEGY: USE OF MOBILE-MEDITATION APP DURING COVID -19

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ABSTRACT

The coronavirus pandemic has led more to focus on the mental wellness, specifically, the mobile -meditation app to deal with the effects of pandemic. According to report from app store intelligence firm Sensor Tower, the world's 10 largest English-language mental wellness apps in April saw a combined 2 million more downloads during the month of April 2020 compared with January, reaching close to 10 million total downloads for the month. Studies of scientists from leading universities have shown the positive effect of meditations (even the simplest ones) on the human body. Besides, it's a great way to "release emotional issues", at least for a while. No wonder meditations are gaining popularity. meditation apps, are a novel method for improving health and behaviours. These apps may be a critical health promotion strategy during the COVID-19 pandemic. However, limited research has assessed whether meditation app health outcomes are associated the effect of pandemic.

The aim is to explore the use of mobile-mediation apps during the lockdown as a disruptive innovation to deal with the symptoms of lockdown. We further aimed to explore associations between the usage of mobile-meditation apps and perceived effects of COVID-19 on stress, mental health, and physical activity.

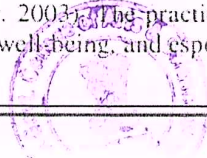
Keywords: Mobile-meditation apps, Covid-19, stress, mental health, mindfulness

Meditation is an ancient practice that attracted many people during Covid-19 pandemic. The COVID-19 pandemic had a negative impact on public mental health as there were intense fear of getting infected and death, loneliness imposed by quarantine, there were disruptions in social interactions due to social distancing, financial distress (Zhou et al., 2020), and increased domestic responsibilities due to school closures (Lee, 2020). These increased societal fears, uncertainties, stress and anxiety levels, served as a catalyst for many people to download the mobile-meditation app during the pandemic. The digital technology has always enhanced the well-being and improved social connectedness through the improvement in social support and engagement in various activities. Thus, the dynamic mobile applications (apps) transformed traditional meditative processes into accessible courses at fingertips and many people used to deal with the negative consequences of the pandemic.

Pre-pandemic lifestyles have changed in number of ways as people stopped going into their offices, businesses were shuttered, and commuting to a halt, people shifting to be with family during challenging times, lack of space for home office, or being able to afford rents. People lost their independence as they shared their personal spaces and altered their routines to fit into the homes of their parents. Others who may not have experienced symptoms of anxiety prior to the pandemic felt anxious during quarantine, which made them increased usage of meditation apps to deal with all these changes during pandemic, which can be called as the disruptive strategy to deal with the COVID-19 pandemic.

Mobile health (mHealth), defined as "the use of mobile and wireless technologies" to support the achievement of health objectives (World Health Organization, 2017, p. 1), emerged as a viable option for nonemergency care and has gained momentum due to widespread forced adoption by health systems during the pandemic (Wang, X., Markert, C., & Sasangohar, F. 2021). The record numbers between 2010 and 2020, of meditation apps were released in the iOS and Android app stores, which was more than 1,500 meditation and mindfulness apps (McGroarty, 2019). One of the mobile-meditation apps, named Headspace, which was launched in 2010, has thirty-five million users in 190 countries and earned \$56 million in revenue during 2019. Similarly, another mobile meditation app, Calm, founded in 2012, reports over twenty-six million users with fifty-thousand new signups each day, and an estimated \$92 million in revenue in 2019 (Williams, 2020). These strong growth figures illustrate the popularity and disruptive strategy to use meditation apps.

In the year 2020, the growth in users of meditation apps has not only continued but also has been intensified by the current Coronavirus pandemic. Meditation and mindfulness app downloads in the iOS app store reached a weekly record of 750,000 during the week of March 29th, a twenty-five percent increase from one-month prior (Lerman, 2020). The usage of mobile meditation app helped people to train themselves in mindfulness, which is the awareness that arises through paying attention on purpose, in the present moment without judgment (Ruth A. Baer, 2003). The practice of mindfulness gained through meditation has shown significant benefits for health and well-being, and especially for stress reduction and depression (NHS.UK, Mindfulness.)



Davidson et al. (2003) also reported the significant increases in antibody responses to influenza vaccine among subjects who participated in an eight-week meditation educational program compared to an impact group. Grepmaier et al. (2007) found that psychotherapists who practiced Zen meditation had significantly higher therapeutic evaluations. Shapiro et al. (2005) supported the efficacy of an eight-week meditation program in reducing stress and increasing self-compassion among healthcare professionals. Morris et al. (2010) note that mobile apps can also deliver psychotherapy and psychological state interventions during a non-stigmatizing fashion to people that won't otherwise have accessed the therapy. Mindfulness meditation also has an impact on pre-sleep arousal by helping individuals in disengaging from daily worries and reducing rumination and inspiring a greater state of physical relaxation (Garland, S. N., Zhou, E. S., Gonzalez, B. D., & Rodriguez, N. 2016).

The recent development of mobile applications (apps) for smartphones presents a promising opportunity to beat variety of the barriers related to typical mindfulness meditation training (Cavanagh et al. 2014; Mani et al. 2015; Plaza et al. 2013). For example, mindfulness meditation delivered via a mobile meditation app allows an experienced instructor to deliver top quality guided meditation training to much more people than face-to-face training can practically allow (Cavanagh et al. 2014). Further, the portable nature of the mobile can reduce geographical, social and financial barriers to access (Cavanagh et al. 2014). According to Kazdin and Rabbitt (2013) the mobile apps have the potential for fulfilment due to their reach, scalability, affordability, and adaptability.

Smartphone ownership is also increasing rapidly. In 2016, 77% of Americans owned a smartphone, up from just 35% in 2011 (Smith 2017). Thus, mobile apps have overcome barriers to introducing mindfulness meditation practice to a wide range of people. Although there are many mindfulness meditation apps available with collectively many downloads, there's a comparatively high employee turnover for mindfulness meditation apps in app stores (Larsen et al. 2016; also see Bakker et al. 2016 on Donker et al. 2013). Given that mindfulness meditation practice is increasingly utilized in psychological state care settings (Brody et al. 2017).

In the previous decade there was an increased use of the internet, which has become more than a simple information and communication tool (Oh E, Jorm AF, Wright 2009). With increasing access to novel information and communication technologies in developed countries, a growing number of users resort to the web for information on, and support for, (Alvarez-Jimenez M, et al. 2017) psychological wellbeing which was one of the resources during pandemic. The rapid development is often easily understood within the context of the many advantages, like accessibility, low stigma, and price effectiveness (Firth J, et al. 2017)

Krusche et al. (2012, 2013) used a web-based intervention aimed toward reducing stress in students. Cavanagh et al. (2013) used a web-based intervention aimed toward reducing stress and increasing mindfulness in university students. Previous research has linked mindfulness with increases in adaptive stress responses and coping resources (Weinstein et al. 2009). Given that the transition to school life are often tumultuous (Fisher and Hood 1987) and young adults are heavily reliant on their mobile phones (Oliver et al., 2005; Smith, 2017), mobile mindfulness may present a promising tool to enhance adjustment to the online school, build resilience, and enhance the power to deal with stressors among the college students. The mobile meditation apps are attractive with younger population since they often associate and express their identity with mobile devices (Longo & Saxena, 2020). Studies conducted with adolescents suggest that they find mobile phone delivery format relevant, familiar, and accessible (Chan et al., 2017; Matthews & Doherty, 2011).

Further, when a health app is prescribed by a health provider (e.g. doctor, counsellor), 30-day retention rates typically increase by 10-30% (Aitken and Lyle 2015). Nevertheless, mobile mindfulness apps could have potential as an adjunct-to-treatment or may function an appropriate homework component in therapy to facilitate the treatment of patients (Kladnitski et al. 2018; Price et al. 2014) with anxiety and depressive symptoms. Wahbeh et al. (2014) examined preferences for the delivery of mindfulness meditation training and reported nearly half of all participants preferred the Internet format as their first choice, for reasons including convenience, privacy, and scheduling flexibility.

Mobile apps allowed individuals to access brief mindfulness exercises at any time, for free of charge or low cost, and without the necessity of a trained provider which was more useful during lockdown. Further, mobile apps with embedded mindfulness components can reinforce sustained practice which is vital for dealing with consequences of covid-19 pandemic. Although mobile apps can deliver meditation across a broad range of health conditions (Mani M, et al 2015 & Flett JAM, et al. 2016).



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CONCLUSION

The main aim of the research paper was investigating and illustrating empirical information derived from monitoring and measuring usage and its effects of mobile meditation app meditation as a disruptive strategy to deal with the COVID-19 pandemic. Further investigation is needed to explore factors that influence adherence and access to mobile meditation app, with a particular focus on diverse populations.

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