Exploring the usefulness of Mindfulness Practices through Zoom meetings in reducing Anxiety and/or Stress of Adults with Learning and Developmental Disabilities during the COVID-19 Pandemic

Thatiane Abra
tabra@lesley.edu

Follow this and additional works at: https://digitalcommons.lesley.edu/expressive_theses

Part of the Alternative and Complementary Medicine Commons, Counseling Commons, Disability and Equity in Education Commons, Mental Disorders Commons, Movement and Mind-Body Therapies Commons, Music Therapy Commons, Nervous System Commons, Online and Distance Education Commons, Other Mental and Social Health Commons, Psychiatric and Mental Health Commons, Psychology Commons, Psychology of Movement Commons, Public Health Commons, Special Education and Teaching Commons, Telemedicine Commons, and the Therapeutics Commons

Recommended Citation
https://digitalcommons.lesley.edu/expressive_theses/477

This Thesis is brought to you for free and open access by the Graduate School of Arts and Social Sciences (GSASS) at DigitalCommons@Lesley. It has been accepted for inclusion in Expressive Therapies Capstone Theses by an authorized administrator of DigitalCommons@Lesley. For more information, please contact digitalcommons@lesley.edu, cvrattos@lesley.edu.
Exploring the usefulness of Mindfulness Practices through Zoom meetings in reducing Anxiety and/or Stress of Adults with Learning and Developmental Disabilities during the COVID-19 Pandemic

Thatiane Abra

Specialization: Expressive Arts Therapy

Thesis Advisor: Elizabeth Kellogg, PhD
Abstract

This thesis explored which mindfulness meditations or mindfulness practices could be beneficial in the online sessions, the extent to which adults with learning and developmental disabilities could learn the practices remotely, and how stress and anxiety disorders could be reduced through online mindfulness interventions. Furthermore, it was also necessary to address the online sessions as the only mental health treatment possibility during the Coronavirus pandemic for the clients observed and the benefits and limitations of these interventions. Additionally, the importance of structure and routine for this population, the multi-modal structure of the interventions, and how attunement plays an important role in bringing spontaneity to the structure are topics that would also be discussed.

The intervention included 25 minutes of body warm-up, 15 minutes of chair yoga or yoga practice, and 10 minutes of meditation, tai chi, or self-massage, followed by a music appreciation activity. As a result of the intervention, clients' stress level and anxiety decreased. Moreover, socializing with their peers showed to be an essential aspect of the group intervention during these unprecedented times. This literature review explores the theoretical underpinnings of this intervention.

Keywords: mindfulness, meditation, intellectual and developmental disabilities, stress, anxiety, Covid-19 Pandemic, attunement.
Exploring the usefulness of Mindfulness Practices through Zoom meetings in reducing Anxiety and/or Stress of Adults with Learning and Developmental Disabilities during the COVID-19 Pandemic

Introduction

Since my first internship, which started in September 2019, I have been working with adults with learning and developmental disabilities. When I was almost finishing the internship, the COVID-19 Pandemic hit the world, and after one month without meeting the clients because the site was closed, my supervisor invited me to develop remote activities for our clients. On April 13th, 2020, I began running two activities: a movement and meditation activity, from 10 am to 10:45 am, followed by a music appreciation activity from 11 am to noon.

Initially, the activities had no more than 3 to 4 clients. It took a few weeks until clients and their caregivers learned and got used to the online environment. Additionally, some clients had no internet, computers, or tablets available at their homes or facilities to join the activities. Thus, it was necessary to accommodate clients joining the groups via computers or tablets as well as clients joining the activities via phone calls. Moreover, it was not unusual to receive phone calls from caregivers right before the beginning of an activity or during an activity asking for help to log in on the Zoom meetings or asking for help regarding technical issues.

On top of the fear, uncertainty, and stress caused by the Pandemic, the facilitators had to cope with caregivers’ and clients’ anger and frustration brought up by their lack of technological skills, lack of resources, or supplies to join the activities. The balance between attunement and structure played an essential role in making the abrupt transition from an in-person approach to a remote one less traumatic to the clients. The first tool, attunement, served as a guide and a measure whether or not to change an activity by bringing spontaneity to it. The second tool,
structure, made it possible to provide comfort and a sense of certainty through repetition, routine, consistent schedule, and familiarity with the facilitator.

After the internship was over, I was hired as a per diem counselor. The daily movement and meditation session, followed by a music appreciation intervention, was shown to be useful in regulating clients who were getting more stressed, anxious or emotionally dysregulated since we could not predict when the world would be back to normal. Finally, the effects of the Pandemic in those clients, associated with the movement and meditation intervention outcomes in reducing their anxiety and regulating them, led the researcher to the question: Why are mindfulness practices through Zoom meetings useful in reducing anxiety and/or stress of adults with learning and developmental disabilities during the Coronavirus Pandemic?

Interventions

The remote movement and meditation activity at the day habilitation program began on April 13th, 2020. As I was an intern at that time, I was invited to develop online activities for the program since they would be the only way our clients could get support because the program shut down in March 2020 due to the COVID-19 Pandemic.

At the end of the internship, I was hired to work as a per diem counselor at the day habilitation program. It is a program for adults with learning and developmental disabilities. Thus, the movement and meditation, as well as the music appreciation online activities, have been going on for ten months.

Since the first day, three clients have been joining the movement and meditation activity with almost no absence: S., J., and G. Moreover, S. is a female, on the Autism Spectrum who lives with her parents; J. is a female, with Down Syndrome and with a speech impairment probably due to her Syndrome; finally, G. is a male, with intellectual disabilities and mostly
nonverbal. It is essential to highlight that the disorders mentioned above are the client's main disorders. It is not unusual for this population to have multiple disorders and comorbidities, which is also true for the three clients.

The Pandemic is ongoing, the site is not entirely open yet, and some clients do not feel safe to go back to in-person interaction. Thus, all the remote activities are still happening. Furthermore, as the clients got used to the online environment, they noticed that it is a safe means to connect to their peers and enjoy activities with them. This safety and easier access to connection made the number of attendees increase. Usually, ten to eighteen clients join this activity each session.

From April 2020 to May 2020, I ran the movement and meditation activity three days a week, and then it turned into a daily activity (from Monday to Friday). Since September 2020, it has been a four times per week activity (Mondays, Tuesdays, Thursdays, and Fridays) because I was not available on Wednesdays. It is the first activity in the morning and has the following structure: 30 minutes of chair body warm-up and body warm-up, 15 minutes of chair yoga and yoga practice, 10 minutes of meditation, Tai Chi or self-massage, and 5 minutes of clients' feedback.

Since I have a bachelor's degree in dance performance and have been teaching ballet, contemporary dance, body-awareness, jazz dance, and theatre dance for the last 15 years, "reading" clients' bodies through the screen is challenging but not an impossible task. Additionally, this activity's central goal is not only to help the clients move their bodies, joints, muscles, and bones safely for physical health purposes, but also to promote socialization opportunities, increase clients' well-being, and decrease their anxiety and/or stress. A challenging aspect of this activity, from my perspective, is assessing clients when they are nonverbal and
their cameras are off or not pointed to the client. However, the three clients mentioned above are always visible on their screens and are great at responding to redictions. Clients met with me and their peers every Monday, Tuesday, Thursday, and Friday at 10 am for the movement and meditation group session. All the three clients had the chance to meet me and join my activities in person before the COVID-19 Pandemic.

Because of the pandemic, the program was forced to close all its sites except for the facilities where some clients live. As a result, online groups were created and they turned into the main, and sometimes the only, psychological support available to the clients. Thus, there are several clients that I have never seen in person, and it is always helpful to have the more experienced clients help build a safe space for the activity to take place. At some point, trust emerges between the new clients and me, which is observed through the new clients' consistent attendance.

Regarding documentation, at the end of the last activity, I took notes describing each activity and how each client experienced them. In those notes, I added clients' feedback and comments during the activity. Even when the comments were not related to the activity, but to their inner world or personal lives, these comments could explain mood swings, behavioral or emotional changes. Thus, clients' perceptions, needs, thoughts, and opinions were all taken into account. All the changes and accommodations that I have done for the last ten months were made to meet and honor clients' needs, as well as to encourage them to advocate for themselves.

Most clients had a caregiver (family member or staff) helping them log onto the Zoom meeting. However, only a few staff members or family members interacted with me. Several times, the client's name was not on the screen, the client was nonverbal, and the caregivers didn't answer verbal questions or questions on the chat. So, it was necessary to take pictures of the
clients and send them to my supervisor to bill the correct clients and write their correct names on my notes. In the case of nonverbal clients, it was always helpful when a caregiver was nearby to answer questions regarding the clients' needs, preferences, and nonverbal expression cues.

Regarding the intervention, clients had very different developmental levels and physical skills, some of them had physical impairments, and one of the clients only spoke Spanish. Thus, at the same session, it was necessary to provide two or three options for each movement and translate all the instructions to Spanish to accommodate the client's needs.

Moreover, in the methods section, I will describe the search words I used for this literature review and why the articles were chosen or excluded for this study. In the literature review section, I will establish a definition for intellectual and developmental disability, introduce historical aspects of the COVID-19 Pandemic, and how it made telehealth the only possibility of mental health treatment. Moreover, a brief description of the mindfulness roots and how mindfulness could be applied to the therapeutic setting; furthermore, a brief explanation of stress and anxiety and the fact that they could be outcomes of the isolation, fear, and uncertainty caused by the COVID-19 Pandemic. Additionally, part of the literature review section includes a sub-section about mindfulness and stress and another sub-section addressing arts use for a population with learning and developmental disabilities. In the last sub-section of the literature review, I will explore the importance of attunement and the benefits of group therapy for the intervention applied by me during the COVID-19 Pandemic to reduce stress and/or anxiety of adults with learning and developmental disabilities through Zoom meetings.

Finally, int the last section my perceptions and the intervention outcomes will be shared. Additionally, the discussion section will also explore the effectiveness and usefulness of the intervention for this population through telehealth and explore the limitations of this study.
Method

In this literature review, as the libraries were closed it was necessary to search peer reviewed articles and books online, and work with books that I had previously bought or ordered online. The search terms used were: COVID-19 pandemic, telehealth, learning and developmental disabilities, adults with learning and developmental disabilities, IDD, intellectual disorder, stress, anxiety, mindfulness, yoga, meditation, tai chi, isolation, lockdown. Additionally, I combined the search terms in groups of two or three. The inclusion criteria used to select the articles reviewed were articles available in English, Portuguese, or Spanish. The most pertinent articles regarding relatedness to the capstone of this thesis were included. On the other hand, articles with what we consider today as offensive language regarding the population were excluded, not only because of the language, but due to potential bias.

Literature Review

In this section, the essential terms for this study, like intellectual developmental disorder, mindfulness, stress, anxiety, attunement, COVID-19 Pandemic, and telehealth, will be defined. Furthermore, the literature review section also brings evidence-based information to support the intervention's effectiveness and usefulness that I initially applied intuitively out of necessity.

Intellectual Developmental Disorder (Intellectual Disability) and Specific Learning Disorder

In this subsection, intellectual developmental disorder and specific learning disorder are defined according to the DSM-5 as this is the population addressed in this study. Furthermore, specific aspects of the individuals with these disorders like systemic marginalization; exposure to stress, trauma, and isolation; and their exclusion from conversations around social policies for their population, would be discussed.
Intellectual Developmental Disorder (Intellectual Disability) and Learning Disorder are included in the neurodevelopmental disorders cluster of the DSM-5. In the same cluster are also included: the communication disorders (language disorder, speech sound disorder, social – pragmatic - communication disorder, and childhood-onset fluency disorder - stuttering); Autism spectrum disorder; ADHD; the neurodevelopmental motor disorders (developmental coordination disorder, stereotypic movement disorder, and tic disorders); and specific learning disorder.

The neurodevelopmental disorders are a group of conditions with onset in the developmental period. The disorders typically manifest early in development, often before the child enters grade school, and are characterized by developmental deficits that produce impairments of personal, social, academic, or occupational functioning. The range of developmental deficits varies from very specific limitations of learning or control of executive functions to global impairments of social skills or intelligence.

(DSM-5, 2013, Neurodevelopmental Disorders section, para.1)

It is essential to mention that the co-occurrence of neurodevelopmental disorders is frequent and that the features of some disorders include symptoms of excess, deficits, and delays in achieving expected developmental milestones (DSM-5, 2013, Neurodevelopmental Disorders section, para.1).

According to the DSM-5, “Intellectual disability (intellectual developmental disorder) is characterized by deficits in general mental abilities, such as reasoning, problem solving, planning, abstract thinking, judgment, academic learning, and learning from experience” (2013 Neurodevelopmental Disorders section, para.2). The individual with intellectual disabilities
would experience impairments of adaptive functioning, and in some cases living independently would not be possible (DSM-5, 2013).

When individuals have deficits in their ability to perceive and process information within the correspondent developmental stage, they are diagnosed with specific learning disorder. In general, this neurodevelopmental disorder is perceived during the school learning process and affects the individual’s performance in the academic setting. “For all individuals, specific learning disorder can produce lifelong impairments in activities dependent on the skills, including occupational performance” (DSM-5, 2013, Neurodevelopmental Disorders section, para.8).

According to Lund, Forber-Pratt, Wilson, and Mona (2020), the disability community has been disproportionately impacted by sources of trauma and stress and the COVID-19 pandemic added new potential sources of trauma and stress. Not only has this population been historically marginalized due to their disability but they are also marginalized with the intersection with other oppressed identities like poverty, race and ethnicity, and ageism, for example. After the onset of the COVID-19 pandemic some potential sources of stress impacted the disability community. Isolation, fear of death and losing beloved ones, concerns about health care access and loss of care, economic issues, and poverty, are some of these new potential sources of stress or sources that were magnified during these unprecedented times.

Finally, it is essential to mention that Landes et al. (2020) “found higher prevalence of respiratory, endocrine, and circulatory diseases among COVID-19 patients with than without IDD at all ages, and higher COVID-19 case-fatality rates for patients with than without IDD at ages 0-17 and 18-74” (p.1). Moreover, the disability community and especially those individuals
living in congregate care settings are at more risk due to the challenges these types of residence present to physical distancing (p.2).

**COVID – 19 Pandemic and Telehealth**

The impact of the COVID – 19 Pandemic on individuals with learning and developmental disabilities and how to overcome those during the pandemic have been the central concern for this author since the beginning of this uncertain times. When the Pandemic hit, it was not clear what measures would need to be taken and how long it would last. This period of uncertainty contributed to increase people’s fear of death, fear of the unknown, concerns regarding their socio-economical lives, their physical health, and their mental health. New studies addressing the outcomes of this Pandemic, not only for people with learning and developmental disabilities, but for the whole population, have been released and were an important source for this study, since this is currently a brand-new topic for all human beings. It is important to point out that the last time our civilization experienced a pandemic of this magnitude was the 1918 flu, therefore, more than one century ago.

According to the World Health Organization (WHO) website, it was on December 31st of 2019 when the organization got official notice regarding what was called at that moment “viral pneumonia” in Wuhan, China.

Up until the writing of this paper, the last weekly epidemiological update on COVID-19 of the World Health Organization (WHO) was released on April 27th, 2021. According to this report,

Globally, new COVID-19 cases increased for the ninth consecutive week, with nearly 5.7 million new cases reported in the last week – surpassing previous peaks. The number of
new deaths increased for the sixth consecutive week, with over 87,000 new deaths reported. (WHO, 2021, para.1)

A report added to the WHO timeline on January 18th, 2021 showed that, despite the fact we already have multiple COVID-19 vaccines, making efforts to suppress transmission is still one of the most effective tools for this pandemic. (WHO, n.d.). Thus, after over one year of the COVID–19 Pandemic, vaccines are not yet available for most of the world’s population and several countries have been experiencing lockdown or social distancing and experiencing an increase of cases due to the emergence of COVID-19 virus variants some of them more contagious or more lethal than the original virus. Furthermore, it is still unpredictable when life will be back to normal.

According to Otto Rank, “the human consciousness is driven by two basic concerns, fear of life and fear of death” (Halprin, 2009. p.45). In my clinical practice, some of the clients reported being afraid of coming back to the in-person program when the site began to open during the pandemic. Most of the clients said they were afraid of being exposed to the virus and get sick or die. So, for their safety, they would be better off staying safe at home and joining the program remotely. Ferguson et al. (2020) stated, “In addition to the universal and personal stress regarding possible infection, illness, and death and potential loss of loved ones, the pandemic has also changed the global social landscape via the implementation of strict lockdown and social distancing policies” (Lund, Forber-Pratt, Wilson & Mona, 2020. p.313).

Additionally, this population experiences marginalization and isolation on a regular basis and this has increased since the beginning of the pandemic due to the need for social distancing and lockdown to suppress transmissions. This also increased the likelihood of them experiencing its negatives outcomes like stress and potential trauma. According to Lund, Forber-Pratt, Wilson
and Mona, “The COVID-19 pandemic introduces unique potential sources of trauma and stress within the disability community, including concerns about health care rationing and ableism in health care, isolation, and the deaths and illnesses of loved ones and community members.” (2020, p.313). Moreover, “Prior research on the psychological impact of other mass trauma (e.g. natural disasters) suggests that the pandemic’s mental health impact might be exacerbated for members of marginalized populations, who are more likely to have limited access to socioeconomic resources and supportive social networks.” (Goldman & Galea, 2014, as cited in Lund, Forber-Pratt, Wilson & Mona, 2020. p.316).

In this setting, the telehealth or telemedicine approach emerged as the sole available resource for mental health support in places where the lockdown was established, or at least, the safest way to provide support keeping social distancing to eliminate the likelihood of transmission or contamination. Zoom, a cloud-based tool for video communications app, turned into a great ally during these unprecedented times.

However, while the Zoom meetings initially seemed like a great solution to the in-person encounters, they also brought up the need for basic technological knowledge; the internet; computers, iPads, or phones with internet; and it also required patience to learn how to use the tool and to adapt to the online environment. On top of that, therapists and clients needed to develop tolerance to several hours in front of the screen, especially therapists and clients in day habilitation programs. All these needs exposed socio-economic inequalities: not all clients have internet access or gadgets available; dependence on third-parties, as some clients need their caregivers to help to join the meetings; and finally, the break in their routines brought behavioral, and emotional consequences since, for a large number of people with learning and developmental disabilities, structure is beneficial.
Mindfulness Roots and Mindfulness in the Therapeutic Setting

Movement practices emphasizing body awareness, yoga, Tai Chi, and meditation, were some of the mindfulness practices I utilized in my interventions in order to help clients to reduce their anxiety and stress levels, increasing regulation and self-regulation during the pandemic.

It was Thomas William Rhys Davids who coined the term "mindfulness" in 1881. According to the University of Cambridge website, "He was taught Pali by a Buddhist scholar, Yatramulle Unnanse" (Collection of Rhys Davids family, Pali scholars, n.d.). Moreover, "He was appointed Professor of Pali and Buddhist Literature at University College, London, 1882-1904; Secretary and Librarian of the Royal Asiatic Society, 1885-1904; and Professor of Comparative Religion at Manchester University, 1904-15" ("Collection of Rhys Davids family, Pali scholars," n.d.).

Mindfulness was the closest English word Rhys Davids could find to translate the Buddhist term sati (in its Pali form) or smrti (in its Sanskrit form) (Gethin, 2011). Rhys Davids stated that "sati is literally 'memory,' but is used with reference to the constantly repeated phrase 'mindful and thoughtful' (sato sampajaño); and means that activity of mind and constant presence of mind which is one of the duties most frequently inculcated on the good Buddhist" (Rhys David 1881, p. 145 as cited in Gethin, 2011, p.264).

According to Gethin (2011), "The use of Buddhist' mindfulness' practices in the context of western clinical psychotherapy emerged in the 1980s and early 1990s and is associated above all with the name of Jon Kabat-Zinn and his work at the Stress Reduction Clinic (founded in 1979) and Center for Mindfulness in Medicine, Health Care, and Society (founded 1995) at the University of Massachusetts." (p.268). Additionally, "Jon Kabat-Zinn's 'mindfulness- based stress
reduction' (MBSR) in turn fed into the development of 'mindfulness-based cognitive therapy' (MBCT)” (Segal, Williams, and Teasdale, 2002, as cited in Gethin, 2011, p.268).

Bishop et al. (2004) stated that "Mindfulness in contemporary psychology has been adopted as an approach for increasing awareness and responding skillfully to mental processes that contribute to emotional distress and maladaptive behavior" (p.230).

The intention of addressing the roots of mindfulness meditation practice in this paper is to honor its origins and give a brief historical background of this widespread concept.

**Anxiety**

Since the beginning of 2020, lockdowns were adopted by several countries as a measure to stop spreading the SARS-CoV-2 virus. “These inexorable circumstances which are beyond normal experience, lead to stress, anxiety and a feeling of helplessness in all” (Singh, S., Roy, D., Sinha, K., Parveen, S., Sharma, G., & Joshi, G.,2020, Introduction section, para. 1).

In this section, the following topics will be discussed: what anxiety is, the role played by emotional dysregulation and uncertainty intolerance in increasing anxiety, and the relation between disasters (hurricane, earthquake, and pandemics) and anxiety, in the disability community, during the COVID-19 Pandemic.

Comer (2014) stated that, “Biological theorists believe that generalized anxiety disorder is caused chiefly by biological factors” (p.122). However, if genetic inheritance could play a role, it is also important considering that

Because relatives are likely to share aspects of the same environment, their shared disorders may reflect similarities in environment and upbringing rather than similarities in biological makeup. An indeed, the closest the relatives, the more similar their environmental experiences are likely to be. (Comer, 2014, p.123)
Thus, there is also a social factor playing an important role in the anxiety disorders onset. The COVID-19 pandemic is a strong social stressor that has been increasing the stress and anxiety levels of the population in general, including the disability community since it hit the world in 2019. Analogously, studies show that “the rate of generalized and other anxiety disorders was twice as high as among residents who lived through the disasters as among unaffected persons living elsewhere” (Comer, 2014, p.115). This effect was observed not only after months, but also years after the disaster (Comer, 2014).

From a psychological perspective, “Anxiety disorders include disorders that share features of excessive fear and anxiety and related behavioral disturbances. Fear is the emotional response to real or perceived imminent threat, whereas anxiety is anticipation of future threat” (DSM-5, 2013, Anxiety Disorders section, para.1). Anxiety and fear usually co-occur; however, there are differences between these states. While fear is associated with autonomic arousal responses necessary for immediate danger reactions, anxiety is more related to muscle tension and expectations of a future danger (DSM-5, 2013, Anxiety Disorders section, para.1).

Sáez-Suanes et al. (2020) found that uncertainty intolerance and emotional dysregulation are predictors of anxiety in a population of adults with autism spectrum disorders and intellectual disability (p.2). According to this study, “Emotion regulation is a process by which people try to manage and understand emotions and adapt their emotional response to the context” (p.2). Moreover, uncertainty intolerance is defined as “a dispositional characteristic that results from a set of negative beliefs about uncertainty and its implications and involves the tendency to react negatively on an emotional, cognitive, and behavioral level to uncertain situations and events” (Buhr & Dugas, 2009, p.216 as cited in Sáez-Suanes et al., 2020, p.2).
Thus, the establishment of a new routine which includes lockdown, social distancing, wearing masks, constantly washing hands, or using sanitizers during the pandemic, contributed to increase the anxiety levels of adults with learning and developmental disabilities for increasing the feeling of uncertainty, and changing their life’s structure. Moreover, the fear of getting sick or fear of death, economic issues and health care issues—potential stressors of these times—may also play a role increasing the disability community’s anxiety levels and emotional dysregulation.

**Stress**

Since the beginning of the Pandemic, we’ve all been exposed to the unknown, fear, and uncertainty. Furthermore, there was a noticeable increase of maladaptive behaviors, mental health disorders like anxiety and depression, and stress, all outcomes of these challenging times. “Emerging research on COVID-19 has documented that the virus has led to elevated levels of psychological distress” (Lund, Forber-Pratt, Wilson & Mona, 2020, p.4).

In this section, the following topics will be discussed: what stress is, whether it is beneficial or harmful, the relation between stress and Isolation, as well as how stress affects people with IDD, especially during the COVID-19 Pandemic.

According to Rathus (2018), “Psychologists define stress as the demand made on an organism to adapt, cope or adjust. Some stress is healthful and necessary to keep us alert and occupied. Stress researcher Hans Selye (1907-1982) referred to such healthful stress as eustress” (p.288). Thus, a certain level of stress in specific situations could be beneficial.

On the other hand, intense and prolonged stress could be harmful as it affects mood, physical and mental health. “Intense and prolonged stress, such as that caused by a natural disaster or social or financial problems, can overtax our ability to adjust, affects our moods,
impair our ability to experience pleasure, and harm the body” (Folkman, 2011; Rossetti et al., 2016, as cited in Rathus, 2018, p.288). Heart diseases, cancer, anxiety, and depression are some of the physical and mental outcomes, respectively, related to prolonged stress (Contrada & Baun, 2011, as cited in Rathus, 2018). It is important to mention that even daily hassles (household hassles, health hassles, time-pressure hassles, inner concern hassles, financial responsibility hassles, work hassles, and security hassles) can add up stress to our lives and bring the harmful outcomes of it (Hamilton & Julian, 2014; Sladek et al., 2016 as cited in Rathus, 2018). Stress caused by isolation is another example of a daily hassle that will be explored in this section.

It is known that how stressful someone perceives a situation is also subjective, to some extent. Rathus (2018) said that “We appraise events, and our responses depend on their perceived danger, our values and goals, our beliefs in our coping ability, and our social situations” (p.290). Furthermore, “By heightening the individual’s emotional reaction to the loss and fostering feelings of helplessness, these beliefs also impair coping ability (Ken et al., 2018; Peter et al., 2018; as cited in Rathus, 2018, p. 292). Thus, not only can stressors in general increase one’s stress level, but they could also affect their effectiveness while trying to cope with it.

Another essential component mentioned by Rathus as a stressor is what he called “irrational beliefs”. An example of irrational beliefs playing a stressor role in a person’s life is fostering catastrophizing thoughts towards the COVID-19 Pandemic, the virus, and its implications not based on scientific-based knowledge or without any reasonable explanation.

However, it is not this author’s intention to minimize the advent of the COVID-19 Pandemic. According to Lund et al. 2020:

In addition to the universal and personal stress regarding possible infection, illness, and death and potential loss of loved ones, the Pandemic has also changed the global social
landscape via the implementation of strict lockdown and social distancing policies

[...]new social norms such as recommended use of homemade facemasks [...] and new and reimagined social discussions around issues such as health care rationing. (Lund, Forber-Pratt, Wilson & Mona, 2020, p.1)

Additionally, the Lund, Forber-Pratt, Wilson and Mona (2020) article brings up another fundamental issue: historically marginalized groups, like adults with learning and developmental disabilities, have been experiencing the systemic forms of oppression (race, ethnicity, poverty, social economic status, e.g.) and on top of that, the stressors’ effects of the uncertainty, fear, and loss caused by the COVID-19 Pandemic.

**Mindfulness Meditation and Stress**

Gabriely et al. (2020) found that meditation was the only media within their research that improved awareness of the present moment. It was a qualitative and quantitative study; it used questionnaires completed at home, and physiological variables measurements (breathing rate, heart rate, galvanic skin response, GSR). Seventy-three students (54 males and 17 females) ages ranged between 18 and 40 from the Afeka Tel-Aviv Academic College of Engineering, Israel, were recruited after receiving an email from the Dean of Students Office for attention problems and/or learning disabilities. The final number of participants in the three groups were 27 in the mindfulness meditation, 35 in the DGB practice and 9 in the waiting-list control. Additionally, the measures were collected before and after the termination of the interventions.

Finally, the study showed that "both mindfulness meditation practice with device-guided breathing were associated with stress reduction" (Gabriely, Tarrasch, Veliki & Ovadia-Blenchman, 2019, p.1). It was evidenced by "the GSR measurement, which is a good indicator for stress and anxiety levels, increased significantly in the control group in comparison to both
interventions" (Gabriely, Tarrasch, Veliki & Ovadia-Blenchman, 2019, p.7). Additionally, according to the article, mindfulness meditation and breathing practice could be combined, and the client could benefit from both, improving her emotion regulation and anxiety reduction.

Serife explored the variation of alpha, beta, and theta brain waves during the practice of diverse yoga styles in clinical and research studies. Moreover, in this review, yoga means asanas, pranayama, and meditation practices combined;

Asana; It means physical posture and is considered a form of exercise as it requires active and/or passive participation of muscle groups. Meditation; It is the practice that involves the deepening of focus and awareness, and there is no dynamic movement other than breathing. Pranayama; is a breath-based application that provides respiratory control. It includes inhalations and exhalations at a specific rate and intensity. (Şerife Şeyma Torgutalp, 2018)

According to Şerife Şeyma Torgutalp (2018), they observed improvements in perception, memory, mood, and anxiety by the activation of alpha, beta, and theta waves. In this paper review, five different studies were assessed. However, the five studies' samples are not large, and there are no specifications regarding age range, normalization, and how the sample was recruited. Additionally, the measurement of brain waves and brain functioning were the means to collect data for the studies. However, the studies use different yoga styles; the interventions were not the same length; and some studies collected data before, during, and after the entire process; some did not.

Even though it did not utilize a normalized sample, and the population is not the one that I am interested in, the Şerife Şeyma Torgutalp's article was relevant in the sense that it pointed
out the areas of the brain that are stimulated during the execution of different combinations of the asanas, pranayama, and meditation; and it was visible on the EEG tests.

The article, "Brief mindfulness meditation training alters psychological and neuroendocrine responses to social evaluative stress," used self-reported psychological survey as the qualitative data for the research, and also neuroendocrine responses as the quantitative data of the research. The most important outcome of this research was that sometimes the psychological level of stress perceived by the participant was reduced, but the salivary cortisol reactivity to the Trier Social Stress Test (TSST) was increased. According to the researchers, one hypothesis is that this might be due to the effort the participants put on to meditate and keep engaged (Creswell, Pacilio, Lindsay, and Brown, 2014). In accordance with previous studies, they found out that mindfulness meditation decreased the level of anxiety perceived by the participants, and especially within those with low dispositional mindfulness. This research could be problematic because it is very technical and tough to understand; the sample is not that large, only 66 physically and mentally healthy university students between 18 and 30 years old.

Furthermore, it was a three-day research with 25 minutes of interventions each. However, the researcher used a pre-recorded meditation tool, which I have also used in some interventions, with the young adults students with learning and developmental disabilities. Finally, the study provided initial evidence that "either mindfulness training or dispositional mindfulness can be used as a stress-protective psychological resource" (Creswell, Pacilio, Lindsay, and Brown, 2014, p.10).

I Beauchemin, Hutchins, and Patterson (2008), "Mindfulness Meditation May Lessen, Anxiety, Promote Social Skills and improve Academic Performance Among Adolescents with
Learning Disabilities,” essential for being the first study, as it is said in the same article, addressing a topic that is closely related to my capstone thesis topic.

Moreover, the study mentions previous studies related to anxiety and social skills among children and adolescents with learning disabilities; meditation and relaxation training; studies of anxiety and meditation (which addresses the differences between trait anxiety and state anxiety, concepts that I was not familiar with); and studies of social skills and meditation, all sources that could also be helpful for my study.

The sample is small, only 34 students between 13 and 18 years old, and 2 of their teachers who have worked as facilitators of the research. Social Skills Rating System (SSRS) and The State-Trait Anxiety Inventory (STAI) were tools to collect the quantitative data, and Attitudinal Questions and two open-ended questions were tools to collect the qualitative data. "The intervention consisted of meditation sessions for 5 to 10 min at the beginning of each class period 5 days per week for 5 consecutive weeks” (Beauchemin, Hutchins and Patterson, 2008, p.40). However, the fact that the intervention consisted of meditation sessions for 5 to 10 minutes is similar to the range of time I have been applying to my clients, from 5 to 15 minutes. Furthermore, the population is similar to mine, people with learning and developmental disabilities, except that the population of the study is younger than the population I am interested in.

Attunement

“In expressive arts therapy, tuning into the moment creates an opportunity for the clear articulation of creative impulses to emerge and the possibility of achieving a therapeutic attunement” (Kossak, 2009, 17). Attunement has always played an important role in my practice as a dance or singing teacher, and more recently as an expressive arts therapist in training.
Unconsciously I always tried to “feel the energy” of the students, or clients, and the energy of the space, after tuning in to myself at the beginning of each lesson or session. For my process as a musician, dancer, teacher, vocal coach, choreographer, or therapist, connecting to my inner world, and connecting to the space that I am at, and to the persons that I am with are the most important parts. Only after establishing these connections, I feel I am able to provide meaningful help, lessons, or activities. Additionally, during the interventions, it is also through attunement I decide the rhythm of the activity, what kind of activity would be suitable for the person or the group, when I must switch the activity, or when the session is over. According to McNiff (2015), “Attunement is described as an immersion in the present moment and a sensory awareness of ourselves, others, and the spaces we inhabit” (p.v). Moreover, “Empathy starts with being attuned to our own sensory presence and internal pulse.” (McNiff, 2015, p.v).

In a setting where a great number of clients are nonverbal, or have speech impairments, being able to tune in and understand their needs even when they cannot verbally express those is a powerful tool. Furthermore, it is not unusual to find nonverbal clients or clients with speech impairments within the disability community. According to Kossak (2009), “The art of being with another person and listening to what is said and what is implied becomes an act of tuning in” (p.13).

Regarding the qualities of attunement Kossak (2015) said that they include: “embodied rhythmic experiences that can be individual as well as communal, leading to a more awakened state of consciousness similar to peak, or intuitive experiences spoken about in spiritual, mystical, or transpersonal experiences” (p.ix). Like in the practices that originated what is called mindfulness in the Western society, Kossak mentioned the spiritual aspect of attunement. In
traditional meditation, yoga, and Tai Chi practices, the goal is to align body, mind, and soul, not only body and mind.

Finally, it is necessary to define the term embodied mentioned above. “The term ‘embodied’ or ‘embodiment’ refers to a body-centered intelligence that informs how one knows and experiences the world” (Kossak, 2009, p.14). In the same article Kossak stated that, “Embodiment can include awareness of breath, movement impulses, sensation, and associative emotions” (Kossak, 2009, p.14).

To sum up, this literature review briefly defined what intellectual disability and specific learning disorder are and showed aspects of this population like vulnerability and systemic marginalization. This section also explored the role that COVID-19 pandemic stressors such as isolation, fear of death, fear of uncertainty, intolerance to uncertainty, financial issues, health insurance, and health issues played in increasing anxiety and stress levels within the community of adults with learning and developmental disabilities.

Moreover, the literature review also revealed how zoom meetings turned into a tool to overcome part of the sense of isolation, and an indispensable tool for telehealth during these unprecedented times. The origins of mindfulness practices and some examples of applicability in order to reduce stress and anxiety and promote well-being and emotional regulation were also discussed. Finally, this literature review discussed the role attunement plays to establish connections with our own selves, with others, and with the environment and how powerful this tool could be connecting one’s body, mind, and soul, an aspect also present in the practices of mindfulness.

Discussion
The mindfulness practice's outcomes in the online environment have been shown to be helpful for adults with learning and developmental disabilities during the COVID-19 pandemic. I noticed that the clients could keep regulated, maintaining the same stress and anxiety levels they had before the pandemic by participating in the movement and meditation activities and/or in the music appreciation activities. Thus, the mindfulness practices increased awareness and the ability to skillfully respond to the stressors that the pandemic brought up (Bishop, 2004).

After getting used to the online environment, to the activities offered, and acquiring the skills needed to log into Zoom, the clients improved their gross motor skills, memorized some of the movements, memorized the entire self-massage practice, and at some point, the client S. was able to meditate for 15 minutes every session. This showed how she improved her focus and sustained attention, and according to her, the meditation and, later, the self-massage practices were good. S. stated several times, "It was good; it made me relax."

Additionally, the clients S., G., and J. also improved their social skills; they could adapt their social skills to the online setting. Waiting for their turn to talk, waiting for the end of the meeting to chat after the brief initial check-in at the beginning of the session, and encouraging new clients to engage in the activities were some of the improvements I observed in these clients' behaviors.

Regarding the music appreciation activity, it helped clients to advocate for themselves since they were the ones choosing the songs they wanted to listen to, and they also learned how to respect one another’s turns and wait for their turns. When the meetings began to have more than 20 clients for this activity, it was necessary to change its structure. The clients were
asked to choose the songs in peers, and they learned how to accommodate the needs of each other; sometimes one chose the singer or band, and the other peers chose the song. Other times, they took turns, one chose in one session, the other one chose on the following day.

Moreover, I always helped those who struggled with the decision-making process or could not express themselves verbally. For those clients, I observed how they reacted listening to their peers' songs among several meetings or even in one meeting. Thus, I helped the clients to choose a song or chose songs for them, whether the clients did not answer verbally or through body language by getting clues from the clients' facial expressions or body expressions. I used attunement, especially the embodiment aspect of it, as describe by Kossak (2015) to tune in to the clients and better access their needs.

I observed whether the client danced or sang or hummed along with a specific song, or whether the client smiled, laughed, complained, or rolled eyes while listening to a song, and whether any other body or facial change was present. This would give me an indication to clients’ preferences while helping them to choose songs on their turns, or simply to choose songs for clients who did not answer.

On the turn of each client or peer of clients, I used to put them in Zoom's spotlight while requesting their songs. Even the nonverbal clients would appear in the spotlight for them to acknowledge that they also had a turn, they were seen, and that their body language also communicated their needs.

Furthermore, I had tried to implement a body warm-up and stretching activity before the COVID-19 pandemic at the original site, but it was very challenging to engage clients. The clients used not to engage at all, got easily distracted, preferred other activities, and even chatted with peers instead of exercising. Thus, it was a great surprise to have clients engaged in the
movement and meditation activity for over one year, with excellent attendance. Initially, I had three to five clients for each activity; after one year, there were 10 to 20 clients for the movement and meditation activity and 15 to 32 clients for the music appreciation activity.

The possibility of socialization through Zoom meetings also played an essential role during these unprecedented times. People with learning and developmental disabilities suffer from isolation or had very small social circles even before the pandemic, and their isolation increased with the need for lockdowns and social distancing. Thus, the clients who had internet access, gadgets, and someone to help them join the online activities benefited from online socialization since it was the only available means of seeing friends, staff, and therapists from their daily program.

According to what I observed and to the statements that were given by some of the clients as feedback at the end of each activity, the body warm-up exercises, followed by the chair yoga and yoga practice, and the meditation, which was replaced by self-massage and the music appreciation activities facilitated through Zoom meetings, helped the clients, adults with learning and developmental disabilities, to maintain or reduce their levels of stress and anxiety. Moreover, the clients improved their motor skills, focus, sustained attention, and social skills.

My recommendations for further research and for others interested in exploring the same topic are looking for updated data regarding the pandemic and the telehealth or telemedicine development and usefulness and getting client’s informed consent to record the sessions to get further information that might be lost in each single live session. Moreover, for further research, having a meaningful sample in terms of number of participants, as well as a control group, would be recommended to re-test similar interventions and validate them or not. Furthermore, exploring articles and books that were not available online during the COVID-19 pandemic would be a
good next step for future research. Finally, I would like to encourage researchers from the expressive arts therapy and mental health counseling cohort to provide more studies addressing the people within the disability community, now also called people with different abilities.
References


https://doi-org.ezproxy.les.flo.org/10.1093/clipsy.bph077


https://doi.org/10.1016/j.psyneuen.2014.02.007


INTELLECTUAL DISABILITIES AND THE COVID-19 PANDEMIC


https://doi.org/10.1016/j.aip.2020.101645


THESIS APPROVAL FORM

Lesley University
Graduate School of Arts & Social Sciences
Expressive Therapies Division
Master of Arts in Clinical Mental Health Counseling: Expressive Arts Therapy

Student’s Name: Thatiane Abra

Type of Project: Thesis

Title: Exploring the usefulness of Mindfulness Practices through Zoom meetings in reducing anxiety and/or Stress of Adults with Learning and Developmental Disabilities during the COVID-19 Pandemic

Date of Graduation: 5/22/21

In the judgment of the following signatory this thesis meets the academic standards that have been established for the above degree.

Thesis Advisor: E Kellogg, PhD