Report

Length of Efficacy of the Online Mindfulness-Based Logotherapy Program (OnlineMLP): A Brief Report

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ABSTRACT

The Covid-19 pandemic has transformed many aspects of our lives, mainly in implementing intervention programs for those in need. Virtual and online engagements exponentially became the norm and demands for telepsychology and teletherapy have risen. In-person or face-to-face therapies are being converted to online platforms to service those in need in the safety of their own homes. This study tested the length of efficacy of the Online Mindfulness-Based Logotherapy Program (OnlineMLP) we developed in targeting depression among cyberbullied adolescents in Tamilnadu, India, during the Covid-19. We experimentally tested the efficacy of the OnlineMLP and determined whether its efficaciousness has a long-term effect after its implementation. We conducted pre-test and post-test among the controlled and experimental group comprising forty (20+20) participants using Beck's Depression Inventory-II (BDI-II). Upon deriving the result, four weeks after, an extended post-test was conducted on the experimental group to measure the length of efficacy of OnlineMLP, administering Beck's Depression Inventory-II (BDI-II). Paired t-test was used for data analysis, and our result showed no significant difference between the participants' post-test and extended post-test scores. The reduced depressive symptoms addressed by our OnlineMLP continued after four weeks indicating its long-term efficacy in lowering the depression among adolescents of cyberbullying victims.

Keywords: OnlineMLP, Covid-19, cyberbullying victimization, depression, adolescence

The pandemic has forced everyone towards telehealth. Therefore, the developments in web-based therapeutic services have become necessary and inevitable (Hanley et al., 2021). Though video conferencing has already been in practice for many years (Rees & Stone, 2005; Stubbings et al., 2013; Rees & Maclaine, 2015), the increasing need created the option to obtain services online as a port of entry into the mental health care. Moreover, available resources affirm its effectiveness in reducing depression, anxiety, and stress (Stubbings et al., 2013; Kim et al., 2018; Christ, 2020; Lalande et al., 2021), as well as the efficacy and feasibility of this technology in training clinicians (Kobak et al., 2017).

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Robert Agnew's General Strain Theory (GST) states that strain is an event or condition that individuals dislike (1992). One of the three significant strains is the presentation of noxious or negatively valued stimuli. This strain involves individuals' unexpected exposure to events or conditions such as child abuse, bullying, cyberbullying, negative relations with parents and teachers, or criminal victimization (Agnew, 1992; Jang & Agnew, 2015). Beck also stated that dysfunctional belief is characterized by a negative view of the self, a negative view of the world, and a negative view of the future (Beck et al., 1976, p.11). In 2015 a systematic review was conducted by Bottino et al. using two databases, PubMed and Virtual Health Library (BVS), with the following criteria, 10th to 12th-grade students' population, cross-sectional prevalence studies on cyberbullying, and standardized instruments. Out of 377 articles assessed for eligibility, 43 satisfied the predetermined inclusion criteria for a systematic review. The study recognized that cyberbullying is related to emotional stress and negative emotions such as anger, fear, anxiety, depression. In addition, being bullied disturbs their academic and psychosocial problems, depression, low self-esteem, and externalized hostility. "Cyberbullying is abuse/harassment by teasing or insulting the victims' body shape, intellect, family background, dress sense, mother tongue, place of origin, attitude, race, caste, class, name-calling, using modern telecommunication networks such as mobile phones and Internet" (Jaishankar, 2009, p.30) explicitly express the ethnic behaviors and thinking of India.

With this background, we developed an Online Mindfulness-Based Logotherapy Program (OnlineMLP) to target the depressive symptoms of the cyberbullied victims of adolescent college students from Tamilnadu, India. We then pursued the present study to determine the length of efficacy of our developed intervention program. We hypothesized that the OnlineMLP is significantly efficacious for the participants and that its effect on the depressive symptoms would last long after four weeks without the intervention.

METHODS

Design

The pretest-posttest randomized experimental design with an extended post-test was utilized in the present study. The independent variable is the Online Mindfulness-Based Logotherapy Program (OnlineMLP) we developed. The dependent variable is the depressive symptoms as measured by the Beck's Depression Inventory-II (BDI-II).

Participants

A total of 40 (Males=11, Females=29) college-going adolescents from the State of Tamilnadu, India, who fulfilled the inclusion criteria, participated in this intervention program. The participants age was 18-19 (Mean [M] = 18.52; Standard Deviations [SD] =.50). The participants were randomly assigned to the experimental and control groups (20+20). After the full implementation of the pretest-posttest control group experiment, the experimental group participants alone were subjected to the extended post-test to assess the length of efficacy of OnlineMLP on their depressive symptoms. Approval from the UST Graduate School Ethics Review Board and informed consent from the participants were secured in executing the experimental procedures.

Instruments

- **Cybervictimization Questionnaire for adolescents (CYVIC).** This scale was utilized as a screening tool in selecting the participants based on the criterion that their scores are higher than the cut-off range for cyber victimization. The CYVIC

scale (Alvarez-Garcia et al. 2017) is a 19-item questionnaire to assess the frequency with which the participants became the victims of cyberbullying over the three months. (e.g., "Someone has hung doctored (modified) photos of me on the Internet to harm me or laugh at me."; "I have received calls insulting me or making fun of me."). Each item was evaluated on a 4-point Likert scale of scoring never = 1, rarely = 2, Often = 3, and always = 4. Total scores can be obtained by adding all responses given to all 19 items. Higher scores indicate a higher degree of cyberbullying victimization (Alvarez-Garcia et al., 2019). The Raykov rho composite reliability coefficient of each of its four factors has values between 0.74 and 0.89 (Alvarez-Garcia et al., 2017). In our study, the reliability of Cronbach's alpha of CYVIC is 0.89.

- **Online Mindfulness-Based Logotherapy Program (OnlineMLP).** This intervention program is our independent variable in the present study. The OnlineMLP was constructed using the program development model of Conklin (1997). This model consists of planning, design, implementation, evaluation, and validation that enhances program relevance and allows concentrated resources to focus on many people's most severe, contemporary needs (Boyle & Mulcahy, n.d.). The OnlineMLP is summarized by the acronym KINDNESS (see, Appendix) and is an effective intervention program in targeting and lowering the depressive symptoms of adolescents (Maria Michael & Reyes, 2021).

- **Beck depression inventory-II (BDI-II).** This scale was used to measure our dependent variable in the present study. The BDI-II consists of 21 items (e.g., "I feel quite guilty most of the time"; "I do not feel that I look any worse than I used to.") that are answered on a 4-point Likert scale ranging from 0 to 3. From the total scores, a score of 0-13 is considered minimal range, 14-19 is mild, 20-28 is moderate, and 29- 63 is severe (Beck et al., 1996; Community-University Partnership for the Study of Children, Youth, & Families, 2011). The BDI-II has reliability statistics Cronbach's alpha of 0.897 in the present study.

Procedure

Initially, we performed a comprehensive review of available literature in line with the study to derive insights needed in the program development process. Then, integrating knowledge gained from the literature review and observations, we conducted interviews and focus group discussions among the adolescents and the mental health experts for further clarification and deep expertise. Finally, we employed Shapiro's mindfulness theory and Viktor Frankl's Logotherapy. Shapiro defines mindfulness as "the process of intentionally attending moment by moment with openness and non-judgmentalness" (Shapiro et al., 2006, p. 375). And Viktor Frankl says everyone has the freedom of attitudinal choice, even in situations of unalterable condition (Frankl, 2006; Devoe, 2012) and experiential value, which helps to relate our daily experiences (Kashdan & Ciarrochi, 2013). Upon reading the developed OnlineMLP, experts from the mental health field validated the content, which resulted in the inter-rater reliability in a coefficient of .709. Then, we conducted a pilot study followed by the implementation of OnlineMLP to the controlled and experimental groups. Data gathering, interviews, focus group discussion, pilot-study, pre-test, post-test to the control and experimental groups, and extended post-test to the experimental group virtually.

RESULTS

Table 1 shows the post-test ($M = 18.65$, $SD = 5.93$) and extended post-test ($M = 14.45$, $SD = 4.50$) scores measured by Beck Depression Inventory-II (BDI-II), indicating the length of

efficacy of OnlineMLP on the depressive symptoms of victimized adolescents via cyberbullying. No significant difference was found between the post-test and extended post-test scores of the participants after completing the OnlineMLP; the depressive symptoms remained the same and did not increase, indicating the long-term efficacy of the intervention after four weeks.

Table 2. Paired t-test of the post-test and extended post-test of the experimental group

| Variables | Post-test | | Ext. Post-test | | | |
	M	SD	M	SD	t	p
Depression	18.65	5.93	14.45	4.50	2.73	.013

Ext. Post-test – Extended Post-test

DISCUSSION

We developed the Online Mindfulness-Based Logotherapy Program (OnlineMLP) to target the depressive symptoms of adolescents via cyberbullying during the Covid-19. Literature review, interviews, focus group discussions, demographic profile, CYVIC, BDI-II questionnaire, Robert Agnew's General Strain Theory (GST), and Beck's cognitive theory of depression helped us understand the problem scenario. Later, we integrated the mindfulness theory of Shapiro and logotherapy of Viktor Frankl and developed OnlineMLP, which was content validated by the seven mental health experts and pilot tested with ten adolescents. After which, we implemented the intervention program to experimental validation procedures to test its efficacy (Maria Michael & Reyes, 2021).

New intervention programs must be constantly validated by continuous research regarding their efficacy and long-term influence (Paun et al., 2015; Lundt & Jentschke, 2019; Petursdottir et al., 2021); we tested further the length of effectiveness of the OnlineMLP. Our hypothesis was supported that the intervention program has a long-term effect on the depressive symptoms after four weeks of completing the Online Mindfulness-Based Logotherapy Program.

CONCLUSION

The Online Mindfulness-Based Logotherapy Program (OnlineMLP) is an efficacious teletherapeutic intervention with a long-term effect on the depressive symptoms of cyberbullied adolescents during the Covid-19 pandemic. Though the OnlineMLP was developed and tested as a group activity, it can also be explored and given to individuals to determine its effectiveness. Furthermore, OnlineMLP was intended to address the depression of adolescents victimized via cyberbullying during the Covid-19. Yet, other factors like loneliness, fear and excessive internet use could also be investigated and analyzed. Lastly, OnlineMLP can be further tested on a more extensive base of individuals of different ages and from different nationalities and cultures to maximize its benefits and internal and external validity.

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Appendix: The Objectives of OnlineMLP - KINDNESS

Module	Objectives
Module 1 **K**nowing and connecting	To know other participants; build rapport; explore expectations; set ground rules; promote knowledge, enthusiasm, and vigor to participate fully; educate about cyberbullying, their potential to live a quality life and the benefits of practicing mindfulness regularly; introduce the OnlineMLP; enable the participants to focus on the present moment and to have positive energy, happiness, and freedom in life.
Module 2 **I**nterconnection between Body, Mind, and Spirit	Becoming aware of negative thoughts; identify the connection between body, mind, and spirit; educate about how thought affects mood, health, and behavior; enable the participants to be mindful and pick one item in each dimension (mind, body, spirit) and work on it throughout the day; boost self-acceptance, positive self-concept, and self-awareness; adhere consistently to a plan of action.
Module 3 **N**oticing the dysfunctional thoughts	Acknowledge whatever is arising in mind in the present moment and let go of our tendency to what things to be different; recognize the tragic triad; using paradoxical intention; motivate to improve self-esteem and self-efficacy; teach various strategies to create positive vibes.
Module 4 **D**ebriefing the suffering	To enable the participants to understand, 'your suffering is not you'; motivate to treat themselves with as much kindness; facilitate a discussion on existential frustration, despair, and loss of hope; make them understand the existential vacuum; motivate to improve social skills, self-acceptance, responding rather than reacting to the situation; Re-animate the self-talk.
Module 5 **N**urturing the 'Meaning'	Enable the participants to understand the basic tenets of logotherapy; motivate them to scull out the moments that they miraculously solved the problems; encourage them to express their creativity; understand reperceiving; facilitate self-regulation, self-management, values clarification, and cognitive, emotional, behavioral flexibility, and exposure.
Module 6 **E**stablishing attitudinal change	Help to establish the ability to take a stand in the face of life's difficulties; motivate to follow 'selfless compassion'; to relate to other people through a state of receptivity; teaching Appealing Technique to connect with inner resources and develop and strengthen a sense of inner calmness; to share their success stories, positive about others; to reduce aggressive thinking, building trust.
Module 7 **S**electing to respond than reacting	Motivate to select responding rather than reacting; practice different attitudinal concepts like non-judgmental, letting go; understand and practice magical mastery; do loving-kindness meditation; help handle physical illnesses like headaches, abdominal pain, sleep problems, insomnia, and fatigue.
Module 8 **S**etting friendly atmosphere	Help the participants feel better about themselves; make them feel accepted and loved by the family and friends; improve their 'meaning' as a groundwork for their future living; help them be present and be mindful at every moment; prepare the participants for termination.