

Studying the Effect of a Mindfulness-Based Social and Emotional Learning Program on Students' Wellbeing: The Case of a Lebanese Private School

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Abstract: *Students who reside in high-stress environments have low levels of wellbeing, which might affect their academic performance. However, the latest studies worldwide show that mindful children with high social and emotional learning skills tend to experience greater wellbeing and less negative emotions and anxiety. In this exploratory mixed method study, the researcher examined the effect of the MindUp Curriculum, a mindfulness-based social and emotional learning program, on 117 grade 6, 7, and 8 students' wellbeing. Results revealed improvement in the wellbeing of students in the experimental group from pre to post-tests intervention compared to those in the control group. The study concluded and recommended that introducing mindfulness-based social and emotional learning techniques into educational settings has potential advantages for students, teachers, and administrators. Finally, future research is advised to expand the study to more locations or years of implementation, examine professional development opportunities, and consider the importance of implementing such programs into the Lebanese Curriculum.*

Keywords: social-emotional learning, mindfulness, wellbeing.

1. Introduction

International reports showed that at least 20% of young children develop one mental health problem before age 18, and these illnesses might start as early as 7 to 11 years of age (De Carvalho, Pinto & Maroco, 2017). Unfortunately, there is evidence that approximately 1% of these children only receive services that address mental health concerns and that these services target only children with special needs (Merrell & Walker, 2004). What are the reasons behind these mental health problems, and how can we prevent them?

One of the most critical traumatic events individuals face in life that might affect their mental health is war and conflict. Aggressive events such as violence, economic failure, social disturbance, and high mortality rates are lived during the wars' dangerous crisis and disasters encountered by nations and people in general (Samia & Shaheen, 2013). For example, in the U.S., studies estimate that at least 150,000 students who attended more than 170 primary and secondary schools have experienced mass shootings (Cox & Rich, 2017), with 122 fatalities resulting (Basu, 2018). In addition, 21% of the 50.3 million public school students have reported bullying, ranging from not participating in activities to being pushed, tripped, or spit on (National Center for Education Statistics, 2017). Studies show an increase in the incidence and prevalence of mental defects among people who live in areas exposed to war and violence (Srinivasa & Rashmi, 2006). The psychological complications are well-reported and are commonly persistent. These complications include depression, anxiety, irritability, emotional instability, social instability, and cognitive and behavioral disturbance (Srinivasa & Rashmi, 2006).

During the recent decade, several Arab countries have been subjected to frequent episodes of war and conflict, such as

Lebanon, Palestine, Iraq, and Syria (Al-Ghzawi, Al-Batawy, & Azzeghaiby, 2014). Children who experience or are exposed to violence in life, in general, are at risk of depression and anxiety, increased rate of substance abuse, and as a result, decreased academic achievement. Moreover, these behaviors will continue to affect them throughout childhood and adulthood (McDougall & Vaillancourt, 2015). The 2020 explosion in Beirut destroyed homes, buildings, and much of the city's food reserves and caused a shortage of medicines. In addition, Lebanon was already dealing with several crises, including economic collapse, civil unrest, the Syrian refugee crisis, and the COVID-19 pandemic, which could have impacted children's mental health. Before the pandemic, studies revealed that 50% of Lebanese children and adolescents experienced anxiety, and 13% experienced depression (Right to Play, 2020).

Schools are the primary setting for valuable academic and social skills training for children and adolescents (Greenberg et al., 2003). Strategies inspired by social-emotional learning instructions have emerged as evidence-based interventions designed to help address challenges associated with behavioral or emotional concerns among youth. Social and emotional learning (SEL) is essential to education and human development (CASEL, 2013). SEL is the process by which all young people and adults acquire and apply knowledge, skills, and attitudes that enable them to develop healthy identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions (CASEL, 2013). These interventions are designed to serve as a preventative model to combat the onset and future development of mental health concerns by focusing on student competencies and problem-solving skills; therefore, it is practical to conceive an expanded role for teaching children these necessary skills in the school setting (CASEL, 2013).

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Furthermore, preliminary studies suggest that school-based mindfulness programs are practical tools for promoting mental health in children. A simple definition of mindfulness is the practice of uninterrupted, non-judgmental conscious awareness of the present moment (Kabat-Zinn, 2003). Children in schools where mindfulness programs have been implemented showed improved social, cognitive, behavioral, and emotional regulating skills (Black & Fernando, 2014). Studies have also shown the benefits of mindfulness on mental health and wellbeing for elementary and middle-aged school children (Schonert-Reich & Lawler, 2014) and high school-aged adolescents (Bootzin & Stevens, 2015).

Research Question

Is there a difference in the wellbeing of grade 6, 7, and 8 students who participated in a mindfulness-based social and emotional learning program and those who did not participate?

Hypothesis:

Students in grade 6, 7 and 8 who participated in a mindfulness-based social and emotional learning program (experimental group) showed higher levels of wellbeing as those who did not participate.

2. Literature Review

Social and Emotional Learning

In 1994, a group of educators and researchers launched at the Fetzer Institute the Collaborative of Social and Emotional Learning (CASEL), which is an organization that studies strategies to improve students' social and emotional competence, health, mental health, and academic achievement through evidence-based social and emotional learning programs (Durlak, Domitrovich, Weissberg, & Gullotta, 2015). According to CASEL (2013), social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships and make responsible decisions. SEL comprises five categories: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Social and emotional learning skills will allow children to be aware of themselves and others; they will be taught how to make responsible decisions, how to be ethical and respectful of others, how to manage their emotions and behaviors, how to have social skills, and how to find solutions to problems effectively. As a result, these children will likely have more self-confidence, feel more motivated, they will believe more in their abilities, will communicate better with their peers and teachers, and they will be able to set academic goals and achieve these goals (Zins, Weissberg, Wang, Wallberg, 2004). CASEL's framework suggests that SEL can improve students' cognitive, intrapersonal and interpersonal competencies and, as a result, affects one's ability to handle everyday challenges and tasks effectively, and this framework has been supported by empirical research (Durlak et al., 2011). Evidence-based social and emotional learning programs affect children's lives positively by improving their

confidence along with their grades and behavior; by having more significant social and emotional competence, children will be likely more ready for college, succeed in their careers, have better mental health which will be reflected directly on the society in general (Greenberg, Domitrovich, Weissberg & Durlak, 2017). Adopting high-quality SEL programs improve students' mental health (Durlak et al., 2011). Social-emotional learning does not target only students with emotional problems; it is also used as a prevention method that could benefit all students and equip them with the skills necessary to face any challenges they might face at any time in their life (Greenberg et al., 2017).

Mindfulness

Mindfulness was best defined by the pioneer in the field John Kabat-Zinn as "The awareness that emerges through paying attention on purpose, in the present moment, and non-judgementally to the unfolding experience moment by moment" (Kabat-Zinn, 2003, p.135). Recently, mindfulness has gained lots of interest as a method to promote social and emotional health. Children must be equipped with the right tools to grow and develop, but some children do not have the right skills to deal effectively with the obstacles and stress that they might face in their everyday life, the thing that might affect them physically and mentally (Compas, Conner-Smith, Saltzman, Thomsen, & Wadsworth, 2001). Recent studies in contemplative education showed that mindfulness interventions have lots of positive effects on children and adolescents, such as an increase in attention, improvement in behavior, emotion regulation, response to stress, and increase in social and emotional competence, as well as a decrease in depression, anxiety, and aggression, which is reflected directly on their performance and classroom climate (Schonert-Reich, & Lawler, 2010). Mindfulness allows children to become aware of their thoughts and feelings, which might help them respond thoughtfully instead of impulsively in case of stress.

Wellbeing

Wellbeing generally involves two predominant views: hedonic and eudaimonic perspectives. Hedonic wellbeing is primarily concerned with the immediate states of pleasure and happiness; it is also called subjective wellbeing and involves the presence of positive mood, absence of negative mood, and feelings of life satisfaction (Rayan & Deci, 2001). The eudaimonic wellbeing, also called psychological wellbeing, involves states of autonomy, personal growth, self-acceptance, life purpose, mastery, and positive relatedness.

Wellbeing, in general, can be considered as a person's general positive state of mind, satisfaction, happiness, and good mental and physical health (Ryff & Keyes, 1995). In addition, it can be considered the way a person thinks and feels about himself and others (Mihaela, 2015). According to the World Health Organization, positive mental health is defined as "A state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his to her community" (WHO, 2014, p.1).

Prolonged childhood stress can impact wellbeing, general functioning, and learning factors such as working memory and executive function (Meiklejohn et al., 2012). Furthermore, due to anxiety and stress from life inside and outside of the classroom, such as peer conflicts, family disturbances, socio-cultural factors, and physical and mental health risk factors, children may be at risk of developing stress-related medical conditions (Bell, 2015; Meiklejohn et al., 2012). The importance of self-regulation and stress reactivity in determining healthy cognitive, social, and emotional development in childhood is becoming more widely recognized (Oberle, Schonert – Reichl, Lawler, & Thompson, 2012). Excessive stress in children can harm the developing brain's structure, leaving them vulnerable to issues such as behavior, learning, and overall health (National Scientific Council on the Developing Child, 2007; Meiklejohn et al., 2012). As a result, it is critical to find a method that children can use to reduce stress and prevent mental health and wellbeing deficiencies. Pre-adolescence is the perfect time to target mental wellbeing since it is the age at which significant developmental changes occur in the brain, and improvement in wellbeing at that age will predict future positive mental health (Schonert-Reich & Lawlor, 2010). In addition, evidence shows that mindfulness is a valuable tool to improve children's and adolescents' wellbeing, thus leading to a range of psychosocial and educational benefits (Burke, 2010; Greenberg & Haris, 2012).

Mindfulness, Social Emotional Learning and Children's Wellbeing

There is increasing interest worldwide in children's mental health and wellbeing since the latter affects students' ability to achieve in class (Bernay, Graham, Devich, Rix, & Rubie-Davis, 2016). Moreover, childhood mental health problems predict adult mental illness (Briton et al., 2005), from which the need to find new methods to foster children's wellbeing, such as mindfulness-based programs, that teach children to become more aware of their emotions and actions (Bernay et al., 2016), and as a result enhances feelings of happiness and wellbeing (Brown & Ryan, 2003).

Adult research examining the effectiveness of mindful practices has suggested a link between mindfulness and stress-related physiological systems (Davidson et al., 2003). A state of mindfulness, for example, leads to increased clarity and attention, which can lead to less reactivity to bodily physiological stress responses (Meiklejohn et al., 2012). Furthermore, evidence suggests that mindfulness training reduces stress by decreasing grey matter density in the amygdala, which regulates stress responses (Hölzel et al., 2008). According to Davidson et al. (2003), participants who participated in an eight-week mindfulness program reported less stress and improved wellbeing and immune function. Mindfulness training has also been shown to reduce physiological responses to stress, such as blood pressure (Carlson, Speca, Faris, & Patel, 2007; Palta et al., 2012) and heart rate (Zeidan, Johnson, Diamond, David & Goolkasian, 2010; Ainsworth et al., 2015).

Langer (2000) promotes mindfulness to reduce stress in children. Children can increase their awareness, creativity, and cognitive flexibility through mindfulness, improving

their learning and performance by reducing stress and increasing their engagement in classroom lessons (Langer, 2000). Since children spend many hours in school, mindfulness-based school programs can be implemented as a tool for children to reduce their levels of stress. Additional research shows that mindfulness has been found to provide benefits to students in the classroom. For example, Napoli, Krech, and Holley (2005) conducted a study with 194 elementary school children in grades 1 to 3. Children were randomly assigned to the Attention Academy Program (AAP) or the control group (no AAP training). The AAP training consisted of children paying attention to their breath, movement activities, and sensory stimulation, which were used to facilitate "being in the moment." Activities included body scans and body movements. The study's results demonstrated that students from the AAP training group reported being better able to relax and focus and having reduced anxiety before a test.

Leary and Tate (2007) emphasized that mindfulness is often instructed within the goals of promoting mental and physical wellness, such as reducing negative emotions and stress, viewing oneself and the world with greater clarity, and increasing spiritual experiences. Similarly, Wallace & Shapiro (2006) postulated a model of mental balance that includes four major components: conative balance (balance in one's choice of goals), attentional balance (balanced and increased ability to sustain attention), mental balance (clearer picture of the mental landscape from moment to moment), and affective balance (balance of emotions where one is free from emotional vacillation, empathy, and inappropriate emotions). The Buddhist idea of "mental imbalance" is not intrinsic to an individual but rather is a habitual state that even ordinary people are susceptible to (Wallace & Shapiro, 2006). Thus, mindfulness becomes a tool to re-achieve one's balance and progress toward a greater sense of wellbeing.

Following participation in the MindUP Curriculum, fourth and fifth-grade students demonstrated increased emotional control and decreased aggression and depressive symptoms (Schonert-Reichl et al., 2015). Schonert-Reichl et al. (2015) found a twenty percent gain in students' self-reported wellbeing. Physiological effects have also been noted in research regarding mindfulness practices (Davidson et al., 2012; Meiklejohn et al., 2012). Students reported experiencing improved sleep and increased appetite (Meiklejohn et al., 2012). Adolescents participating in a mindfulness intervention also reported less sleeplessness and lower instances of worry and mental health distress (Bootzin & Stevens, 2005).

After a five-week intervention in a mindfulness program implemented with elementary students at a low-income and ethnically diverse school, teachers reported a significant improvement in paying attention, participation, self-control, and respect for others (Black & Fernando, 2014). In addition, students who participated in a longer, seven-week intervention demonstrated a continued increase in the ability to pay attention, providing evidence for ongoing mindfulness practice implementation in the classroom (Black & Fernando, 2014).

In a study conducted with children exhibiting anxiety, Semple, Reid, and Miller (2005) found that after a six-week mindfulness program, all students demonstrated changes in problem behaviors, including anxiety, attention problems, and internalizing and externalizing behaviors. Another research done by Huppert and Johnson (2010) indicated that students receiving higher ratings in anxiety demonstrated more significant benefits than those with average ratings. A mindfulness program conducted with students enrolled in a remedial reading program found a reduction in anxiety levels and a significant reduction in attention and behavior problems in participants (Semple et al., 2010).

A meta-analysis by Meiklejohn et al. (2012) on elementary school children showed that participation in a mindfulness-based program improved students' wellbeing. The ability to regulate emotions is linked directly with higher levels of wellbeing in children (Barnes, Bauza, Treiber, 2003). A meta-analysis conducted in 2014 showed that mindfulness interventions with youth (6 to 21 years old) improved their wellbeing (Zoogman, Goldberg, Hoyt, & Miller 2014).

Children with high levels of wellbeing will most probably grow into happy and confident adults, which will be reflected in their self-esteem and academic achievement, and as a result, in society in general (Morgan et al., 2007).

3. Methodology

This study is an exploratory mixed-method study that uses both quantitative and qualitative approaches to collect and analyze data to understand better the effect of the mindfulness-based social and emotional learning program on children's wellbeing. The researcher relied mainly on the quantitative view of the research while acknowledging that the qualitative approach will benefit to a great extent the research. Collecting quantitative and qualitative data brings more insight into the children's experiences than would be obtained by single data alone. In an exploratory mixed-method design, quantitative data are collected first and are more heavily weighted than qualitative data (Mills & Gray, 2016). In the first phase, the researcher formulates a hypothesis, collects quantitative data, and then conducts data analysis. The findings of the quantitative study determine the type of data collected in the second study or phase that includes qualitative data collection, analysis, and interpretation. The researcher can then use the qualitative analysis and interpretation to help explain or elaborate on the quantitative results (Mills & Gray, 2016). The dependent variable in this research is children's wellbeing.

The researcher manipulates at least one independent variable, controls other relevant variables, and observes the effect on one or more dependent variables in experimental research (Miller & Gray, 2016). A typical experiment involves the comparison of two groups. The Pretest-Posttest Control Group Design was used for this quasi-experimental study, which is an experimental design that requires at least two groups, control and experimental. A pre-test is given to each of the two groups. Each group receives a different treatment, and at the end of the study, both groups are post-tested. The post-test scores are compared to determine the treatment's effectiveness (Miller & Gray, 2016). The Stirling

Silver Wellbeing Scale was used to assess students' emotional and psychological wellbeing. In the qualitative part, the researcher converged the results of her experiment with eight semi-structured interviews done with seven teachers that teach these grade levels.

Participants of the current study were chosen from a private school in Suburb Beirut. The sampling was considered convenience sampling. As a result, 117 grade 6,7 and 8 students returned their consent forms to participate in the current study. In addition, seven teachers answered the semi-structured interviews.

The experiment was conducted in the school year of 2020-2021 over a period of 16 weeks. In each grade level assigned for the research, two sections were involved: one was considered the control group, and the other was considered the experimental group. The Mind-Up program was delivered to the experimental groups weekly as a 50-minute session given by the researcher. Before starting the program, all sections were subjected to a pre-test that measured their wellbeing. The same test was administered to all sections as post-test after the intervention. At the end of the academic year, the researcher interviewed seven teachers (out of 14 teachers that teach these grade levels).

Data Collection Tools and Procedure

Quantitative Research

To conduct the experimental study, the researcher first obtained approval from Team MindUp on February 19, 2019, the school's principal on September 25, 2020, and the guardians of the students involved in the study. Then, the research was carried out over sixteen weeks, from October 5, 2020, to May 3, 2021, for one weekly session (50 minutes each). The Stirling Silver Wellbeing Scale was presented and answered by the experimental and control group students before and after delivering the program. First, the questionnaire was presented to experts in the field to validate it and make sure that is bias-free, then it was piloted. In each session, lessons from the Mind-Up program were delivered to the students in the experimental group in grades 6, 7, and 8.

The Stirling Silver Well-Being Scale (SSWS). The Stirling Silver Wellbeing Scale is a 15 items questionnaire initially developed by the Stirling Council Educational Psychology Service in the U.K. as a reliable measure to assess emotional and psychological wellbeing in children aged 8 to 15. It draws on current theories of wellbeing and positive psychology and is used to measure the effectiveness of educational research interventions with children to promote their wellbeing and emotional development (Liddle, & Carter, 2015). In a study done in 18 schools and 1849 children, the scale showed good psychometric properties, "meeting all the benchmark criteria for validating measures. Overall, the scale provides educational professionals with a concise and robust measure of wellbeing in school-aged populations and assess the effectiveness of projects and interventions for children aged eight to 15". (Liddle, & Carter, 2015, p.182).

Qualitative Research

Interviews were conducted to gather data from teachers about their personal opinion and reflection regarding the behavior, attitudes, and feelings of students involved in the study before and after the intervention. These individual interviews were piloted first and then conducted with seven teachers (that teach the students involved in the study) and occurred at the end of the study. Interviews lasted 20-30 minutes and were audio-recorded and then transcribed and considered the teaching schedules of participants. Participants were also questioned about the areas or situations in which they reported benefits and how they obtained them.

Reliability and Validity of the Semi-Structured Interviews. Reliability and Validity in the literature on methodology four elements of judging the quality of any research are identified: credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). The researcher in this study used strong language to present her data as visually as possible. Furthermore, she meticulously recorded all interviews. During the interviews, the researcher took copious notes that included detailed, concrete descriptions of what was discussed. To ensure the validity of the participant interviews, all questions were based on research, data, and theory.

Reliability is based upon quality research that incorporates a series of practical steps in qualitative research (Creswell, 2007). As Creswell suggests, reliability can be ensured through pre-determined interview questions designed to elicit consistent participant responses. Participants' responses to interview questions were consistent with those of other study participants. An expert with mindfulness experience with children reviewed the interview questions for dependability. The audio recordings of the interviews were made to ensure validity during the re-examination and research process. As a result, the qualitative study's validity and reliability were established.

Data Analysis Techniques**Quantitative Data**

- Means and standard deviation for individual items and groups.
- Independent T-test and Paired T-test to measure the effect of the program on students' wellbeing.

Qualitative Data

The collected data were analyzed using a method informed by the thematic analysis (Brodrik & Metz, 2009), which is a broad and flexible method for identifying, analyzing, and reporting patterns (themes) within data (Braun & Clarke, 2006). This thematic analysis combines a precise description of the participating perception with a rigorous interpretation to construct relevant themes and sub-themes to obtain meaningful knowledge. Following Braun et al., the analysis was divided into six stages: (1) become acquainted with the data and identify words of potential interest; (2) generate initial codes for each linguistic turn (unit of analysis) to identify essential characteristics of the data; (3) examine and compare previously generated codes to look for broader

patterns of meaning; (4) review the themes and apply them to the data set to determine if they are compelling; (5) decide on the last name of each theme; and (6) integrate the analytical narrative with the data set.

A peer-review process was used to control the researcher's bias in analyzing and interpreting themes (Creswell, 2007). First, a qualified research colleague, neutral to the study, was asked to review the interviews' transcripts and the codes and themes. Then, the researcher and the colleague held a peer debriefing session to discuss the codes and themes. No changes were made to the overall codebook.

Ethical Considerations

Ethical considerations are critical in all research studies, and all researchers must be aware of and attend to the ethical considerations that are relevant to their studies. The ends do not justify the means in research, and researchers must not prioritize the need or desire to conduct a study over the responsibility to ensure the wellbeing of study participants (Mills & Gray, 2016). Researchers are responsible for behaving in a trustworthy manner, just as they expect participants to behave in the same manner, and research studies are built on trust between the researcher and the participants (Mills & Gray, 2016). The two overarching ethical rules are that participants should not be harmed physically, mentally, or socially and that the researcher obtains informed consent from the participants (Mills & Gray, 2016).

Researchers obtain informed consent by ensuring that research participants enter the study of their own free will and understand the nature and any potential risks associated with participation. This requirement is intended to reduce the likelihood of participants being exploited by a researcher persuading them to participate when they do not fully understand the study's requirements. Participants who are not of legal age or are not mentally capable of giving informed consent must have permission from their parents or legal guardians. Even if a guardian grants permission, all participants retain the right to decline participation—the researcher must provide basic information about the task to each participant in language appropriate to the individual's advanced mental level, and the participant must agree to participate (Mills & Gray, 2016).

- Formal approval on February 19, 2019, by the Hawn Foundation and the Team MindUp to use their program in the study.
- Formal approval was also given by the school principal on September 25, 2020, to apply the MindUp curriculum grades 6, 7, and 8 during the school year of 2020-2021.
- A letter was sent to the parents of the students in the experimental groups to take their approval about allowing their children to participate in the study.
- The ethics committee at USJ gave the researcher an approval on November 15, 2019.

4. Results

Descriptive Statistics of Quantitative Results

Results of the Stirling Silver Wellbeing Scale Pre-Test and Post-Test of the Control Group

The results of the Sterling Silver Wellbeing Scale pre-test and post-test scores of the students in the control group are shown in Table 1.

It demonstrates that students in the control group scored 36.11 on the pre-test on average, with the most scored grade 21, and there was no significant dispersion in the students' answers (CV=19.91%). However, students averaged 35.61 on their post-test, with 25 being the most scored grade and no significant dispersion (23.08%).

Table 1: Results of the Sterling Silver Wellbeing Scale Pre-Test and Post-Test of the Control Group

	N	Mean	Mode	SD	CV
Pre-Test	57	36.11	21	7.19	19.91%
Post-Test	57	35.61	25	8.22	23.08%

Results of the Stirling Silver Wellbeing Scale Pre-Test and Post-Test of the Experimental Group

The results of the students in the experimental group's Stirling Silver Wellbeing Scale pre-test and post-test scores are shown in table 2.

It demonstrates that students in the experimental group scored an average of 35.42 on the pre-test, with the most scored grade 25, and there was no significant dispersion in the students' answers (CV=25.04%). However, the students averaged 40.25 on their post-test, with 40 being the most scored grade and no significant dispersion (19.92%).

Table 2: Results of the Stirling Silver Wellbeing Scale Pre-Test and Post-Test of the Experimental Group

	N	Mean	Mode	SD	CV
Pre-Test	60	35.42	25	8.87	25.04%
Post-Test	60	40.25	40	8.02	19.92%

Inferential statistics of the Stirling Silver Wellbeing Scale (SSWS)

Comparison between the Pre-Tests Scores of the Stirling Silver Wellbeing Scale of the Control and Experimental Groups

Table 3 and figure 1 demonstrate a comparison between the Stirling Silver Wellbeing Scale (SSWS) pre-tests scores of students of both the control and the experimental groups.

They show that the average score of the pretest of the control group (36.11) is slightly greater than the average score of the experimental group pretest (35.42). The difference between the pretest scores of the control and experimental groups is not significant (Dif = 0.69, P-Value = 0.65) which is very important to the credibility of the test and study design as it is critical to have close means between the control and experimental groups in the pre-test with an insignificant difference because this implies that both groups were homogeneous and had the same level of happiness at the start.

Table 3: Comparison between the Pre-Tests Scores of the SSWS Control and Experimental Groups

Means		Difference	P-value	Results
Pre-test control	Pre-test experimental			
36.11	35.42	0.69	0.65	Non-Significant Difference

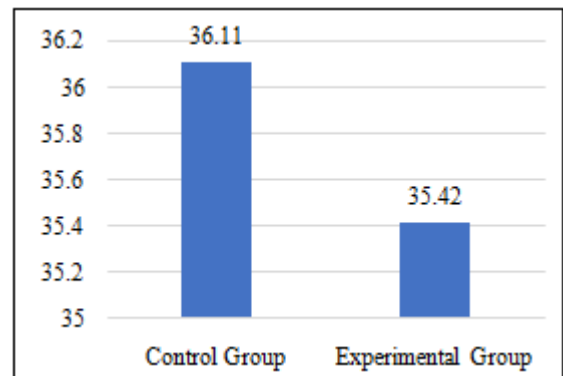


Figure 1: Comparison between the Pre-Tests Scores of the SSWS Control and Experimental Groups

Comparison between the Pre-Test and Post-Test Scores of the Stirling Silver Wellbeing Scale Control Group

Table 4 and Figure 2 show a comparison between pre-test and post-test scores of the Stirling Silver Wellbeing Scale Scores of the control group students

They illustrate that students averagely scored 36.11 on their pre-test while they averagely scored 35.01 on their post-test. It is noticed that the scores of the control group students have declined with a non-significant difference between the pre-test and the post-test (difference= 0.29, P value=0.29).

Table 4: Comparison between Pre-Test and Post-Test of the Stirling Silver Wellbeing Scale Control Group

Means		Difference	P value	Results
Pre-test	Post-test			
36.11	35.01	-0.5	0.29	Non-Significant Decrease

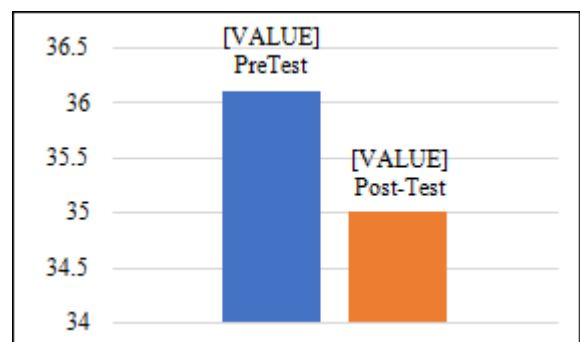


Figure 2: Comparison between the Pre-Test and Post-Test of the Stirling Silver Wellbeing Scale Control Group

Wellbeing Scale Control Group

Comparison between the Pre-Test and Post-Test Scores of the Stirling Silver Wellbeing Scale of the Experimental Group

Table 5 and figure 3 show the comparison between the pre-test and post-test scores of the stirling silver wellbeing scale experimental group students. They indicate that students averagely scored 35.42 on their pre-test while they averagely scored 40.25 on their post-test. It is noticed that the scores of

the experimental group students have improved with a significant difference between the pre-test and the post-test (difference = 4.83, p-value = 0.0)

Table 5: Comparison between Pre-Test and Post-Test Scores of the Stirling Silver Wellbeing Scale Experimental Group

Means		Difference	P value	Results
Pre-test	Post-test			
35.42	40.25	4.83	0.00	Significant Increase

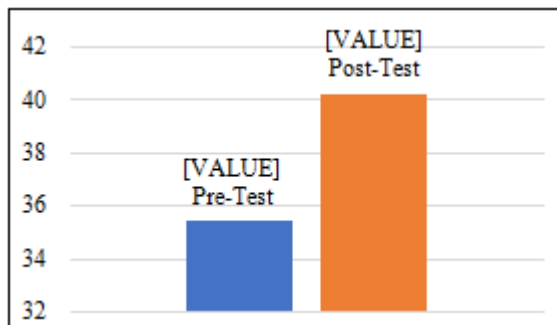


Figure 3: Comparison between the Pre-Test and Post-Test Scores of the Stirling Silver Wellbeing Scale Experimental Group

Comparison between the Post-Tests Scores of the Stirling Silver Wellbeing Scale Control and Experimental Groups

Table 6 and figure 4 show a comparison between the post-tests of the SSWS students’ scores of both the control and the experimental groups. They show that the average score of the post-test of the experimental group (40.25) is greater than the average score of the control group pretest (35.61). The difference between the post-test scores of the control and experimental groups is significant (P value= 0.0 and Dif =-4.64). This significant difference in scores in the post-tests between both groups highlights the impact of the intervention that is conducted on the experimental group, especially that pretests showed that the scores of both groups are convergent.

Table 6: Comparison between the Post-Tests Scores of the Stirling Silver Wellbeing Scale Control and Experimental Groups

Means		Difference	P value	Results
Post-test control	Post-test experimental			
35.61	40.25	-4.64	0.0	Significant Difference

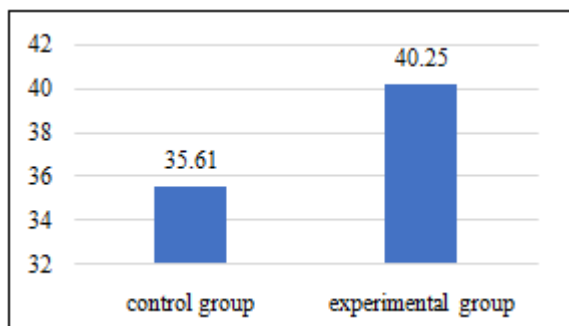


Figure 4: Comparison between the Post-Tests Scores of the Stirling Silver Wellbeing

Scale Control and Experimental Groups Results of the semi-structured interviews

Increase in wellbeing

Participants frequently described an increase in students’ wellbeing. For example, teachers talked about a decrease in the level of stress and anxiety in students in the experimental group after the intervention. In addition, when asked in what ways you feel that the MindUp Curriculum helped your students’ wellbeing (presence of positive mood, absence of negative mood, feelings of life satisfaction and purpose, self-acceptance), one teacher reported the following:

The program had positive effects on students’ wellbeing. They were at ease and relaxed in the class, their mood improved, and they could interact positively. Even negative remarks from their friends were accepted positively and without aggression, which helped them relax more.

Another teacher said:

Students felt more at ease. They were happier and more relaxed, they even accepted each other in a better way, and the level of bullying decreased. Some students even gave supportive talks to their friends when the latter were not feeling well.

5. Discussion

Research Question: Is there a difference in the wellbeing of grade 6, 7, and 8 students who participated in a mindfulness-based social and emotional learning program and those who did not participate?

Relating to the research hypothesis, which aims to examine the levels of students’ wellbeing, the Stirling Silver Wellbeing scale was the quantitative tool used. The Stirling Silver Wellbeing Scale is a 15 items questionnaire initially developed by the Stirling Council Educational Psychology Service in the U.K. as a reliable measure to assess emotional and psychological wellbeing in children aged 8 to 15 years. It draws on current theories of wellbeing and positive psychology and is used to measure the effectiveness of educational research interventions with children to promote their wellbeing and emotional development (Liddle, & Carter, 2015).

After the implementation of the mindfulness-based social and emotional learning program, inferential data showed a significant increase in the mean values of the experimental group between the pre (35.42) and post-test (40.25) with a difference of 4.83 and a p-value = 0.00 < 0.05. Conversely, concerning the control group, there was a non-significant decrease in the mean values of pre (36.11) and post-test (35.61) with a difference of -0.95 and a p-value of 0.2. The two groups of students, control and experimental, had the same level of wellbeing and were homogenous at the beginning, as the average score of the pre-test of the control group was approximately similar to the average score of the experimental group pre-test, which is very important to the credibility of the test and study design as it is essential to have close means between control and experimental groups in the pre-test with an insignificant difference.

Moreover, this homogeneity gives more evidence and indicates that the MindUp Curriculum improved students' wellbeing even though the two groups possess the same level of these traits. In contrast, one of these groups showed improvements after the intervention while the other group showed no improvement.

The qualitative results also showed that introducing this program improved students' wellbeing as most teachers reported a decrease in the level of stress and anxiety among students.

Accordingly, the hypothesis is accepted since the experimental group showed significant improvement in students' level of wellbeing, with zero enhancement in the control group's level of wellbeing. Hence, based on inferential data and semi-structured interviews, and according to the examined sample, the study in hand could hypothesize that: students in grades 6, 7, and 8 who participated (experimental group) in the mindfulness-based social and emotional learning program-the mind-up Curriculum showed higher levels of wellbeing as compared to those who did not participate (control group). These results correlate with other studies which have found that mindfulness-based social and emotional learning programs show an increase in children's wellbeing (Kabat-Zinn, 2003, Black and Fernando, 2014, Schonert-Reich & Lawler, 2014, Lyon & DeLange, 2016, CASEL, 2015).

Pre-adolescence is the perfect time to target mental wellbeing since it is the age at which significant developmental changes occur in the brain, and improvement in wellbeing at that age will predict future positive mental health (Schonert-Reich & Lawlor, 2010). In addition, evidence shows that mindfulness is a valuable tool to improve children's and adolescents' wellbeing, thus leading to a range of psychosocial and educational benefits (Burke, 2010; Greenberg & Haris, 2012). Well-being, in general, can be considered as a person's general positive state of mind, satisfaction, happiness, and good mental and physical health (Ryff & Keyes, 1995). In addition, it can be considered the way a person thinks and feels about himself and others (Mihaela, 2015). According to the World Health Organization, positive mental health is defined as "A state of wellbeing in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and can make a contribution to his to her community" (WHO, 2014, p.1). Mindfulness theory makes several claims about the benefits of regular mindfulness practices. First, the mindfulness skill of redirecting the focus of attention can potentially eliminate or minimize physical discomforts such as chronic pain and stress (Kabat-Zinn, 2003). The mindfulness-based stress reduction (MBSR) program uses specific mindfulness exercises such as breath awareness and body scan yoga to treat physical ailments and stress symptoms. Second, mindfulness researchers and theorists claim that mindfulness training increases attention skills and executive functions, including the ability to control and easily switch the focus of attention (Hamilton, Kitzmen, & Guyotte, 2006). Third, mindfulness researchers and theorists claim that mindfulness training increases social-emotional wellbeing by promoting the capacity to develop and sustain positive relationships

with peers and regulate and communicate emotions (Schonert-Reichl & Lawlor, 2010). Improving children's wellbeing is important because the latter affects students' ability to achieve in class (Bernay, Graham, Devich, Rix, & Rubie-Davis, 2016). Moreover, childhood mental health problems predict adult mental illness (Briton et al., 2005). Additionally, prolonged childhood stress can impact wellbeing, general functioning, and factors related to learning, such as working memory and executive function (Meiklejohn et al., 2012). Furthermore, children may be at risk of developing stress-related medical conditions due to anxiety and stress from life inside and outside of the classroom, such as peer conflicts, family disturbances, socio-cultural factors, and physical and mental health risk factors (Bell, 2015; Meiklejohn et al., 2012). From this comes the importance of adapting programs such as the MindUp program in schools to improve children's wellbeing.

6. Conclusion and Future Scope

In Lebanese schools, research on mindfulness and social-emotional learning is in its early stages, especially concerning impacts on behavior, academic performance and physical and emotional health. It can best be described as 'promising' and 'worth trying.' We need now to see more research in the field, more replication and longer follow-up, more measures designed specifically for younger people, higher standardization between measures, a wider variety of measures, such as performance, physiological measures, and multi-informant measures, a higher separation between curriculum planners and researchers to minimize bias, higher effort to make sure that null findings and damaging effects are appropriate and thoroughly reported, and more significant studies on implementation. There is also an urge to stay away from 'overselling' mindfulness, a tendency seen much lately.

The findings and analysis of mindfulness and social and emotional learning practices with school-aged children have practical implications for teachers, school leaders, and even governments interested in integrating such programs with children and adolescents in educational settings. The research on this topic showed that students who participated in a mindfulness based social and emotional learning program showed improvement in their wellbeing. In addition, the results of this study support that awareness surrounding mindfulness and social and emotional learning in education is essential since it benefits students' mental health. The perceived benefits from mindfulness and social and emotional learning practices are related to better focus and a positive impact on students' learning.

As with all research, there is always more to study and examine. In this article, I focused mainly on the importance of children's well-being in education in general. In Lebanon, educators and community members focus more on children's academic achievement and fail to understand that when a child feels safe and protected, when he or she has high levels of well-being, when he or she gets along well with peers and teachers, he can achieve better at school. This study proved that implementing mindfulness and social and emotional programs in education has a positive effect on children and adolescents' well-being, as a result, on the school climate

and society in general. Schools should open their doors to such programs that encourage values beyond academic success. Mindfulness and social and emotional learning programs should be infused across the school through the culture and modeled by all adults demonstrating high-level of emotional intelligence. Children learn best when watching, listening, and repeating what they experience. When they have adverse childhood experiences, they need mindfulness and social-emotional learning even more. Connection and a sense of safety are firstly required.

Education should awaken the capacity to be self-aware. Life's pain, joy, beauty, love, and ugliness need to be understood as a whole. The highest function of education is to bring about an integrated individual who is capable of dealing with life as a whole. ~ J. Krishnamurti

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