How are the Students Doing? An Investigation of Nova Scotian Youth Mental Well-Being

by

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Abstract

How are the students doing? Of particular concern during the Coronavirus global pandemic, mental health crises are occurring worldwide, affecting individuals in a variety of ways. The objective of this study was to provide a starting point of descriptive statistics and ! ! ! ! ! ! ! ! ! ! ! ! ! doing. In an effort to promote youth MWB, the current study sought to answer: 1. How does self-reported Mental Well- ! ! ! ! ! ! ! ! ! ! general life self- !3! ! ! ! ! ! ! ! ! ! relation to their MWB? We anticipated that Nova Scotian youth would report low levels of MWB, specifically in relation to the ongoing global pandemic. Participants consisted of 29 Nova Scotian youth between the ages of 16 and 19 years old, who were registered in a Nova Scotia high school. The survey included the Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) and qualitative questions to capture student experiences. Results of WEMWBS highlighted that although some Nova Scotian students are doing well, there are many students who reported not doing well. Qualitative findings demonstrate that students are experiencing emotional distress, and signs of lower levels of mental well-being, in many domains of their lives. As anticipated, overall findings suggest that not all students are doing okay during the COVID-19 pandemic. COVID-19 has created significant stressors and barriers to basic psychological needs for MWB. Our youth are not doing okay and we can do better to support them.

Chapter 1

Literature Review

Introduction

Youth spend a significant portion of their days in school; as such this environment plays an important role in their social, emotional, and psychological development (Guo, 2018). Psychological distress can appear during adolescence, being the onset of mental health problems such as anxiety and depression symptoms, which are the later predictors of adult stress levels and mental illness (Pragholapati, 2020). The uncontrollable spread of coronavirus (COVID-19) has created a public discourse around fear and hopelessness, and there seems to no longer exist a safe place anywhere in the world. Mental health crises are occurring worldwide, affecting individuals in a variety of ways. This demands the question: how are the students doing?

This one question brings to light an existing gap in research from positive psychology. Student well-being is listed as a provincial priority according to the Department of Education and Early Childhood Development (DEECD). Though much of psychology works toward diagnostic processes and interventions regarding mental illness, positive psychology focuses on the study of how people thrive and function on a daily basis. Positive psychology is not a clinical approach to solving health problems. Rather, it is a field of study focussed on a shared goal of psychologists to understand human development and flourishing in an effort to promote public health. This work can help us understand ourselves, and also contribute to evidence regarding protective factors that could decrease rates of mental illness. This field is highly relevant to professionals who work with people, such as teachers, not in a clinical capacity, but in a capacity where an understanding of psychological processes can inform their work and support healthy adolescent development.

An important aspect of mental health is represented by researchers through a construct called Mental Well-Being (MWB). MWB is an important factor for academic and social success, as well as for living a fulfilled life. Proportionately allocating resources and supports through the school system to those at higher risk and greater need is critical in promoting youth MWB. In recent years, mental well-being has become increasingly prominent as a subject for empirical investigation in the mental health literature. My proposed study aims to understand mental well-being of youth in Nova Scotia, with a focus on the influence of sex and gender, within the context of a global pandemic.

Positive Psychology

Interest in optimal human functioning and what is good about humans has long been an important human inquiry (Linley & Joseph, 2004). Research trajectories of positive psychology have been diverse. At the origins of modern psychology, James (1902) was interested in the role that transcendent experiences may play in stimulating optimal human functioning (Linley &

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they can be, which was further studied by Allport (1961) with his work on the mature individual,

! ! !)2: 69) seminal thinking about what might constitute mental health.

During the humanistic psychology movement, Maslow (1968) developed the concept of self-

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(1989) integrated much of the literature in the concept of psychological well-being (Linley & Joseph, 2004). The emergence of positive psychology is important as it transcends traditional dichotomies and divisions within psychology and offers ways of working that are genuinely integrative for researchers interested in human functioning (Linley & Joseph, 2004).

Positive psychology is the study of how human beings prosper, both under nurturing conditions and in the face of adversity. The disease model of repairing mental illness has driven psychology for the past half-century (Terjesen, Jacofsky, Froh, & Digiuseppe, 2004). Psychology has predominantly viewed the world through problem-focused or deficit lenses, but Terjesen et al. (2004) argue that focusing strictly on pathology may not provide an appropriate understanding of all aspects of human functioning. They emphasize the importance of considering the conditions in which people persevere and succeed.

The advent of the Veterans Administration and the National Institute of Mental Health (1946 and 1947, respectively) made a crucial impact on psychology as a healing discipline based upon a disease model and illness id[redacted]Wood, 2006). During

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focus toward a more positive psychology. The three main goals of psychology before World War II were to (1) cure mental illness, (2) make the lives of all people more fulfilling, and (3) enhance and identify human excellence (Terjesen et al., 2004). Following World War II, the goal to make the lives of all people better and more complete was lost due to the emphasis on curing mental illness. The emphasis on curing mental illness does not mean that the identification and treatment of pathology was harmful to psychology or school psychology, rather, following the disease model advanced the field of psychology and made a great contribution to society. Because of this contribution in pathology, psychologists developed a good understanding of the etiologies of many psychological disorders and developed empirically based interventions for many disorders (Terjesen et al., 2004). Given these advances, it is good that psychologists receive training in the diagnosis and treatment of psychological disorders it they affect many people (Sheldon & King, 2001), but such co ! ! ! ! ! ! ! ! ! ! !

weaknesses, psychology (including school psychology) has lost part of its original mission (Seligman & Csikszentmihalyi, 2000).

A positive psychological perspective on the discipline of psychology is that the focus of scientific research and interest should be on understanding the entirety of human experience, from loss, suffering, illness, and distress through connection, fulfilment, health, and well-being (Linley et al., 2006). The field of positive psychology at the subjective level (based on or influenced by personal feelings, tastes, or opinions; Merriam-Webster) is about valued subjective experiences: well-being, contentment, and satisfaction (in the past); hope and optimism (for the future); and flow and happiness (in the present). At the individual level, it is about positive individual traits: the capacity for love and vocation, courage, interpersonal skill, aesthetic sensibility, perseverance, forgiveness, originality, future mindedness, spirituality, high talent, and wisdom. At the group level, it is about the civic virtues and the institutions that move individuals toward better citizenship: responsibility, nurturance, altruism, civility, moderation, tolerance, and work ethic (Linley et al., 2006). It is crucial to emphasize that the field of positive psychology has different levels (subjective, individual, group) in which an individual functions.

Moments in people's lives are characterized by experiences of positive emotions (such as joy, interest, contentment, love, and the like) or negative emotions (such as anxiety, sadness, anger, and despair; Fredrickson, 2001). Positive emotions serve as markers of flourishing, or optimal well-being (Fredrickson, 2001). Mulligan and Scherer (2012) argue that there is no commonly agreed-upon definition of emotion. However, according to Borod (2000), emotion can be referred to as a relatively brief episode of synchronized responses by most or all organismic subsystems in response to an external or internal event (e.g., anger, happiness, sadness, shame, pride). It is important to emphasize the episodic nature of emotion. Borod (2000) explains that a

change in the functioning of the person is brought about by some triggering event, which may be external (e.g., behaviors of others, a change in a situation, novel stimuli), or internal (e.g., thoughts, memories, sensations).

Fredrickson (2001) explains that the overall balance of people's positive and negative emotions has been shown to predict their judgments of subjective well-being. Broaden and Build theory was first proposed by Barbara Frederickson as a way to address the lack of research on positive emotions. The premise of the Broaden and Build theory is that both types of emotions must co-exist and that positive emotions build resources to cope with negative emotions (Frederickson, 2001). The idea is that you can build up your resiliency through small positive acts each day. The Broaden and Build theory posits that, unlike negative emotions, which narrow ! ! ! ! !) ! ! ! such as fight, flight, freeze), positive emotions (such as enjoyment, happiness, joy) ! ! ! ! possible actions, opening their awareness to wider ranges of thoughts and actions. It is assumed that over time, this broadened awareness and behaviors builds skills and resources to help cope with and recover from future negative emotions (Fredrickson, 2001). Ultimately, Fredrickson explains that it is through this long-term building of resources that you will be able to experience greater joy and satisfaction in life (2001).

! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! successfully manage difficulties they confront in the present and how they will cope with future battles (Terjesen et al., 2004). Seligman and Csikszentmihalyi (2000) suggested that psychologists become aware that the principles of positive psychology guide many services (e.g., school consultation) that they already provide. Emphasizing the strengths of the individual and of the school setting will not only foster the development of healthier relationships between the

school psychologist and their clients, but also promote more successful outcomes (Terjesen et al., 3115 /! ! -! ! ! /! ! ! ! ! ! !) ! ! optimism, courage, future mindedness, honesty, and perseverance) rather than focusing on repairing their weaknesses may lead to more effective treatment (2004). That is, nurturing these human strengths serve as more efficacious buffers against mental illness as compared to medication or therapy (Terjesen et al., 2004).

Well-Being as a Construct in Positive Psychology

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with people, and the ability to adapt to change and to cope with adversity (Keyes, 2002). Social scientists have sought to influence a definition of mental health as more than the absence of mental illness. Whereas the presence of mental health is described as flourishing, the absence of mental health is characterized as languishing in life (Keyes, 2002). Keyes explains that like mental illness, mental health is defined as an emergent condition based on the concept of a syndrome (2002). A state of health, like illness, is indicated when a set of symptoms at a specific level are present for a specified duration and this grouping of symptoms coincides with distinctive cognitive and social functioning. Mental health may be ! ! ! ! ! ! ! ! ! ! -being. During the last 40 years, social scientists have conceptualized, measured, and studied the measurement structure of mental health through the investigation of subjective and psychological well-being (Keyes, 2002).

Emotional well-being is a cluster of symptoms reflecting the presence or absence of positive feelings about life (Keyes, 2002). Symptoms of emotional well-being are ascertained ! ! ! ! d scales measuring positive affect (e.g., individuals in

good spirits), negative affect (e.g., individual is not hopeless), and perceived satisfaction with life. Like mental illness, mental health is more than the presence and absence of emotional states. For example, subjective well-being includes measures of the presence and absence of positive

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set of measures of well-being. Positive functioning consists of six dimensions of psychological well-being: self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy. That is, individuals are functioning well when they like most parts of themselves, have warm and trusting relationships, see themselves developing into better people, have a direction in life, are able to shape their environments to satisfy their needs, and have a degree of self-determination (Keyes, 2002).

Self-determination theory suggests that people are motivated to grow and change by three psychological needs: to be component, autonomous, and related to others (Deci & Ryan, 2012).

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autonomous motivation (engaging in a behavior because it is perceived to be consistent with intrinsic goals or outcomes), whereas preventing the needs promotes controlled motivation (feeling pressured to engage in a behavior) or amotivation. Satisfying these basic psychological needs (and thus, acting autonomously) have been shown to be associated with psychological health and having high self-determination can foster success in many different domains of life (Deci & Ryan, 2012).

Quality of life has been increasingly recognized as an important health outcome (Huppert and Whittington, 2003). Within the domain of mental health, the importance of subjective measures of well- being has been widely recognized. However, such measures are typically

concerned with the presence or absence of psychological symptoms such as depression, anxiety or low self-esteem. According to Ryff (1989), the focus of health study is on illness, disease, disability, and negative mental states, rather than rates of wellness and positive functioning. This neglect of positive well-being is assumed to be related to the prevailing medical model which tends to dichotomize health and disease, regarding health as simply the absence of disease or disorder. Huppert and Whittington (2003) argue that evidence is accumulating that positive mental states are more than the absence of negative symptoms and may play an independent role in health outcomes. Huppert and Whittington (2003) aimed to compare the characteristics and determinants of positive and negative mental states in a population sample. A novel analysis of data was undertaken from the General Health Questionnaire (GHQ-30) which was completed by 6,317 participants in the Health and Lifestyle Survey at Time 1 and 3,778 at Time 2, 7 years later. Researchers derived a positive well-being scale (POS-GHQ) based on positive responses to the positive items of the GHQ-30 and compared it to a standard symptom measure (CGHQ). The distributional properties of the two scales, together with the results of the discriminant analyses, demonstrate a degree of independence between positive and negative well-being. Results showed that more than one third of the sample obtained either low scores on both positive and negative well-being measures or high scores on both measures. Other findings included that disability and lack of social roles were important determinants of psychological symptoms such as anxiety and depression (but had less influence on positive well-being) and having paid employment was an important determinant of positive well-being but had less influence on psychological symptoms such as anxiety and depression. Another important finding was that 7-year mortality was predicted more strongly by the absence of positive well-being than by the presence of psychological symptoms (anxiety and depression). Overall, these findings emphasize the need to

Psychological Well-Being

Psychological well-being is a wide-ranging concept which embraces affective aspects of everyday experience (Warr, 1978). Such feelings about everyday-life activities may range from negative mental states (dissatisfaction, unhappiness, or worry) through to a more positive outlook which extends beyond the mere absence of dissatisfaction into a state that Warr (1978) described as positive mental health. Warr further explains that the concept of positive mental health is considered to include features such as favourable self-evaluation, growth, personal success and learning from a new experience and freedom from constraints. Flook (2011) examined how positive and negative daily events predict mood and how daily mood predicts interpersonal events within and across days. They wanted to investigate whether there are gender differences when looking at how daily mood predicts interpersonal events and whether interpersonal events predict daily mood. Flook (2011) also wanted to know if the ratio of positive to negative events experie ! ! ! ! ! ! ! ! -being. Participants included 783 grade 9 students from three high schools in the greater Los Angeles metropolitan area. Participants rated their mood on a five-point Likert scale (1- not at all to 5-extrememly). Negative mood was assessed using items from subscales of the Profile of Mood States. Positive mood was assessed using three questions that were created for this study. Participants tracked interpersonal events with family and friends by using a checklist, which included both positive and negative interpersonal events. Hierarchical linear modeling analyses showed that girls ! ! ! ! ! ! ! ! ! ! ! ! mood compared to those from Mexican backgrounds. There were no other significant differences between gender and ethnicity. There were also no differences between ethnic groups in the frequency of positive interpersonal events. Other key findings include that daily negative and

positive interpersonal events significantly predicted mood every day and negative mood predicted more negative and less positive interpersonal event, whereas more positive mood predicted more positive and less negative interpersonal events. Gender differences included that girls had more emotional reactivity to daily negative interpersonal events, but no ethnic group differences were found. Boys and girls did not differ in terms of positive mood predicting positive interpersonal events. Mood was more predictive on interpersonal events for European American than Chinese American. Overall, daily well-being was significantly associated with the ratio of positive and negative interpersonal events, with more positive events predicting more positive mood. The inclusion of positive emotion as a marker of well-being is important to understanding how interpersonal relationships are associated with well-being in daily life (Flook, 2011).

Roothman, Kirsten, and Wissing (2003) studied whether there are significant gender differences in psychological well-being when looking at affective, physical, cognitive, spiritual, self and social aspects. This study did a meta-analysis of data that had been collected for the FORT Project. Participants included 378 people, 90 of which were men and 288 were female. Various questionnaires were used to assess general psychological well-being and the six aspects of psychological well-being (affective, physical, cognitive, spiritual, self and social). ANCOVAs showed that they found that men scored significantly higher on cognitive, physical and self-aspects of psychological well-being, whereas women scored significantly higher on somatic symptoms, the expression of affect and spiritual aspects. No gender differences were found with the social aspects, sense of coherence, affect balance, and satisfaction with life. Men were found to have more overall self-acceptance, feelings of personal worth and adequacy than women. Additional analyses showed that men perceived themselves as being better equipped with

intrapersonal strength to cope with stress, but women scored significantly higher than men on the somatic symptoms subscale. This could reflect traditional perceptions of masculinity according to which men define their manhood through qualities such as independence, social status, competitiveness or a lack of vulnerability (Roothman et al., 2003). If a lack of vulnerability is a traditionally defined standard for masculinity, it is expected of men to evaluate themselves highly in order to avoid risking conflict with their own gender role identification. Masculinity has traditionally been associated with physical invulnerability; therefore, reporting somatic symptoms may not be as obvious in men as it would be in women. Greater knowledge concerning gender differences may create greater opportunities for the further promotion of psychological well-being in both men and women (Roothman et al, 2003).

Subjective Well-Being

Subjective well- !) ! ! ! ! ! ! ! ! ! ! emotional responses, domain satisfactions, and global judgments of life satisfaction (Diener at al., 1999). Thus, researchers define SWB as a general area of scientific interest rather than a single specific construct. Moods and emotions, which together are labeled affect, represent

! -line evaluations of the events that occur in their lives. Diener et al. (1999) explain that pleasant and unpleasant affect became increasingly separate in time, as it was found that the two constructs are moderately inversely correlated but clearly separable. Burns and Machin (2010) aimed to identify the unique effects of psychological well-being (PWB) on two broad subjective well-being affect states (positive and negative affect) when controlling for personality and demographic effects. Psychological well-being was assessed using a 54-item version of

!)2: 98 !PWB scales, which assessed environmental mastery, personal growth, purpose in life, self-acceptance, autonomy, positive relations on six-point Likert scale. Subjective well-

being was assessed with a 5-point Likert scale for 20-items relating to positive and negative affect. Five domains of personality (neuroticism, extraversion, agreeableness, openness to experience, and conscientiousness) were assessed on a 50-item personality measure from the International Personality Item Pool. Hierarchical regression found that PWB variables are a significant predictor of SWB when controlling for personality. Results showed that strong independent effects of personality and PWB on positive and negative affect. Extraversion, agreeableness, and conscientiousness were moderately positively correlated with positive affect. Neuroticism had the strongest effect on negative affect, while openness to experience had a moderate positive coefficient and agreeableness had a negative coefficient. Positive relations were related to lower levels of negative affect which suggests that increases social support is related to better to SWB. In addition to studying affective reactions, SWB researchers are interested in cognitive evaluations of life satisfaction.

Life Satisfaction

Gilman and Huebner (2006) examined the characteristics of adolescents reporting high levels of global life satisfaction. It was hypothesized that high life satisfaction would be beneficial for adolescents. Participants responded to questionnaire assessing their global life satisfaction, interpersonal mental health indicators, intrapersonal mental health indicators and self-reported on GPA and extra-curricular activities. Intercorrelations were calculated for each satisfaction group as well as two separate MANOVAs (life satisfaction groups and BASC subscale; life satisfaction groups, hope, GPA, and extracurricular activities). Results showed that youth reporting high global life satisfaction also reported significantly higher scores on all measures of academic, interpersonal, and intrapersonal functioning than youth reporting low life satisfaction. Youth reporting high global satisfaction reported more positive relationships with

others (including peers and parents), less intrapersonal distress (such as anxiety and depression), higher levels of hope, and a greater sense of personal control than youth reporting low global satisfaction. Students with high life satisfaction also reported more positive school experiences, a greater frequency of structured extracurricular activities participation, and higher GPAs than students with low satisfaction. It was also found that youth who reported high satisfaction also reported significantly less social stress and intrapersonal distress, and significantly more positive perceptions of teachers than youth who reported average satisfaction levels. Gilman and Huebner (2006) argued that high global life satisfaction was also associated with greater adaptation across various facets of academic, interpersonal, and intrapersonal functioning than comparatively lower satisfaction levels.

Ng, Huebner, and Hills (2015) studied the relationship between life satisfaction and academic achievement and how they may be shaped by positive and negative affective experiences (an experience that presents its elements in a positive or negative way; Smithies & Weiss, 2019) in school. The purpose was to investigate the potential bidirectional longitudinal ! ! ! ! ! ! ! ! ! ! ! ! ! ! evaluate the possible moderation effects of individual differences in school-related positive (PA-S) and negative affect (NA-S) in the relationships between adolescent LS and academic ! ! ! ! ! ! ! ! ! ive and Negative Affect Schedule for Children. Multiple regressions were conducted and results showed that academic achievement had a positive effect on life satisfaction when controlling for demographic variables, baseline levels of life satisfaction, PA-S and NA-S. Life satisfaction also had a positive linear relationship with academic achievement when controlling for demographic variables and baseline levels of GPA, PA-S, and NA-S. Huebner (1991) also investigate the

correlates of global life satisfaction in children. To examine this, the relative influence of demographic and personal

Additionally, the authors wanted to provide further evidence for the construct validity of the

tion, in terms of their attitude towards themselves, the degree to which they have control over events in their lives, anxiety, tendencies toward extraversion and neuroticism, and global life

ort cards. It was found that this sample of students had a moderately high degree of global life satisfaction (Student Life Satisfaction Scale (SLSS)) (19.79, SD = 4.61). Results showed that there was no significant correlation between SLSS and demographic variables or school grade. However, there was a significant positive correlation between SLSS and extraversion and self-esteem, and a significant negative correlation between SLSS and anxiety, locus of control, and neuroticism. There was also a positive correlation between SLSS and friends, family, neighbourhood, self, school life, opportunities for fun, and city. Life satisfaction has been demonstrated to affect various areas of

Academic Success and Well-Being

Both academic success and SWB can be viewed central indicators of positive psychological functioning (Guo, 2018). A large number of studies suggest that SWB in school

psychological needs sa

behaviors (Yang, Tian, Huebner, & Zhu, 2019; Guo, 2018). Student engagement is vital to academic achievement. The emotional connections students have in their classrooms are likely to impact their success in school (Yang et al., 2019). The quality of social and emotional

interactions in the classroom (between and among students and teachers) creates the classroom emotional climate (CEC; Reyes, Brackett, Rivers, White, and Salovey, 2012). Reyes et al. (2012) examined the link between classroom emotional climate and academic achievement, including the role of student engagement as a mediator. Authors hypothesized that classrooms with higher observed CEC ratings have students with higher year-end report card grades, classrooms with higher CEC ratings have higher student ratings of engagement, and the relationship between CEC and grades is mediated by student-rated engagement. Data were collected from 63 fifth- and sixth-grade classrooms (1,399 students) and included classroom observations, student reports, and report card grades. As predicted, multilevel mediation analyses showed that the positive relationship between classroom emotional climate and grades was mediated by engagement, while controlling for teacher characteristics and observations of both the organizational and instructional climates of the classrooms. The current study also demonstrates the importance of SWB in student engagement.

Learning motivation is an important factor shaping learning engagement and can directly

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engagement and examines the mediating role of satisfaction of basic psychological needs. Participants were 418 adolescents from two middle schools in Guangdong Province. The participants completed the Revised Academic Self-Regulation Questionnaire, the Utrecht Work Engagement Scale-Student, the Basic Needs Satisfaction Scale, and the Satisfaction with Life Scale. Based on self-determination theory, this study examines the relationship between academic autonomous motivation, basic psychological needs satisfaction, learning engagement, and life satisfaction. Results indicate that adolescents' academic autonomous motivation has a

significant predictive effect on life satisfaction and learning engagement and that the satisfaction of basic psychological needs plays a mediating role on this predictive effect. Authors concluded that basic psychological needs satisfaction mediates this relationship; stronger self-motivation leads to greater autonomy and freedom in learning and better academic development. The motivation adjustment model proposed by Jang, Reeve, Ryan and Kim (2009) also suggests that ! ! ! ! ! ! ! ! ! ! ! ! thus inspiring self-motivation and effectively predicting their degree of learning engagement. Learning engagement in turn predicts behavioral outcomes related to learning, such as academic performance, burnout, and so on. It was further concluded from results that academic ! ! ! ! ! ! ! ! ! ! development, enhance their sense of self-worth, and promote interpersonal relationships. As such, researchers have investigated association between academic achievement and subjective well-being.

Yang et al. (2019) examined the longitudinal association between academic achievement, self-esteem, and subjective well-being. They hypothesized that prior academic achievement will ! ! ! ! ! ! ! ! -being in school ! ! -esteem will mediate the relations between prior academic and later subjective well-being in school, and subjective well-being in school will positively predict later academic achievement directly and indirectly through self-esteem. Academic achievement was assessed using scores from the Chinese, Math and English exams for the three semesters; Self- ! ! ! ! ! ! -Esteem Scale; Subjective well-being in school ! ! ! ! ! ! ! -Being in School Scale. SES was ! ! ! ! ! ! ! ! ! ! ! / The

authors conducted descriptive statistics and a longitudinal mediation model. Descriptive statistics and a series of regression models showed a positive significant correlation between subjective well-being, academic achievement and self-esteem. Additionally, academic achievement positively predicted self-esteem and subjective well-being in school at subsequent time points and self-esteem also positively predicted subjective well-being in school at subsequent time points prior academic achievement positively predicted later subjective well-being in school even when controlling for autoregression effects, gender, age, and SES. SWB in

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The Effect of COVID-19 on Well-Being

Coronaviruses ! ! ! ! ! !) !' ! -3131 /! ! name originates from the spike like projections on its surface giving it a crown like appearance from a microscopic view. The novel coronavirus was first identified in Wuhan city in China in December of 2019. Many of the initial cases had a common exposure to the Huanan wholesale

! ! ! ! !) !' ! -3131 /! ! ! !)3131 ! ! that since then, it has spread around the world due to its high spreading capacity as all ages are susceptible. Person-to-person transmission is through droplets generated during coughing and sneezing by symptomatic patients but can also occur from asymptomatic people and before onset of symptoms. The clinical features include fever, cough, sore throat, headache, fatigue, myalgia, and breathlessness. A person is deemed infectious with a confirmed case with a positive

! !) !' ! -3131 /! ! ! !in taking preventative measures is to ensure adequate isolation to prevent transmission to other contacts. Quarantine and isolation were considered the most helpful measures in containing the infection. Even though lockdown conditions varied between countries, they typically involved home confinement and restrictions

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& Lo Coco, 2021). COVID-19 testing and isolation is crucial to limit spread of the virus (Ravert, Fu, & Zimet, 2021).

Advising or compelling people to self-isolate at home risks serious social and psychological harm (Douglas, Vittal Katikireddi, Taulbut, McKee, and McCartney, 2020). The effects are exacerbated by prolonged isolation, fear of the infection, frustration, boredom, inadequate supplies and information, financial loss, and stigma. Douglas et al. added that enforcing quarantine of people exposed to the infectious disease is associated with negative psychological effects, including post-traumatic stress symptoms, which may be long lasting (2020). These effects are less when quarantine is voluntary and can be mitigated by ensuring clear rapid communication, keeping the duration short, providing food and other essential supplies, and protecting against financial loss (Douglas et al., 2020). Further attention may be warranted for those who may have pre-COVID-19 mental health struggles, which could likely be exacerbated by this social isolation.

!3131⸗ ! ! ! ! ! ! !)Schwartz, Exner-Cortens, McMorris, Makarenko, Arnold, Van Bavel, William, & Canfield, 2021). The concept was promoted by the World Health Organization in 2008 as a public health measure to prevent transmission of influenza, and in various forms, it can be identified in reference to epidemics going back hundreds of years. Since COVID-19 social distancing has become a mainstream concept, associated with personal safety and the safety of others (Schwartz et al., 2021). Social distancing restrictions and subsequent loss of social interaction, in addition to other challenges associated with living though a global pandemic, represent a significant stressor and potential barrier to basic psychological needs. The quick and sudden onset of a stressor such as the

pandemic may trigger loneliness and depressive symptoms (Groarke, McGlinchey, McKenna-Plumley, Berry, Graham-Wisener, & Armour, 2021). Groarke et al. (2021) aimed to determine the longitudinal relationship between loneliness and depressive symptoms over three timepoints during a period of acute stress (i.e., the four months following the announcement of the UK national lockdown) and examined the mediating role of emotion dysregulation in this relationship. Feelings of loneliness were positively associated with subsequent depressive symptoms, and depressive symptoms were positively associated with subsequent feelings of loneliness. Groarke et al. (2012) also reported that difficulties in emotion regulation predicted higher depression symptoms and vice versa, but difficulty regulating emotions did not mediate the relationship between loneliness and depression. Researchers suggest that loneliness should be considered a potentially important part to consider for individuals presenting with depressive symptoms during the time of the COVID-19 pandemic.

Under lockdown conditions, people can experience increased psychological distress and negative emotions (Di Blasi, 2021). Di Blasi et al. (2021) examined the associations between psychological distress, fear of COVID, intolerance of uncertainty, emotion regulation strategies, and social emotional support in a two-wave survey during the COVID-19 pandemic. Researchers found that the links of psychosocial distress, emotion regulation, and intolerance of uncertainty were generally associated and close to each other at T1 (during the lockdown phase) as well as at T2 (after the lockdown). Moreover, depression, stress, anxiety and fear of COVID-19 formed a contiguous pattern, that did not change based on the time (Di Blasi et al., 2021). Scott, Rivera, Rushing, Manczak, Rozek, and Doom (2020) added that not only are social-life consequences crucial to healthy relationship development, adolescent mental health is also sensitive to isolation and loneliness. The risk of developing depression increases significantly for youth experiencing

social isolation and experiencing loneliness during this pandemic period is associated with poor mental health up to nine years later. Scott et al. (2020) argued that scientists have warned that COVID-19 will have unprecedented effects on mental health, which will increase demand for mental health care services.

The COVID-19 outbreak put serious strain on the health system of many countries around the world as well as negatively affected their economic and education systems. Although controlling the spread of the virus is a priority in combating the pandemic, the long-term impacts ! ! ! ! ! !) !' ! -3131 /! ! ! /!)3132! ! student well-being in return-to-school. Their results indicated that COVID-19 is perceived as a threat to both health and social relationships by some youth, and that females in particular may ! ! ! ! ! ! ! ! ! ! ! ! ! ! /! ! and Sümen (2020) studied the effect of the COVID-19 pandemic on health-related quality of life in children. In the study, most parents reported feeling fear and anxiety about the COVID-19 outbreak and most of them follow the news about the pandemic from the Ministry of Health and other government agencies. Almost all of the parents stated that they followed the protection measures carefully and approximately half of them stated that lockdown due to the pandemic negatively affected their mental health. As a part of the lockdown measures, families stock food with long shelf life buying high-processed and calorie-dense food. As a result, it is predicted that many children will have high- ! ! ! ! /! ! ! !)3131 ! found that half of the parents reported that their child had gained weight and their tendency to sleep increased in the process of COVID-19 /!! ! ! ! ! ! ! ! countries combating with the COVID-19, formal education has been suspended and education has been moved to online learning. Tendency to gain weight may have increased since the

mobility of children who are physically active in school environment decreased as a result of lockdown measure and thus, energy balance was impaired due to the failure of burning calories from foods. However, it is also believed that parents stocking calorie-intense food may have also ! ! ! ! ! ! ! ! ! ! ! ! ! ! !) ! and Sümen, 2020). In the study, the physical well-being, emotional well-being, family and total scores of the children whose weight did not change during lockdown were found to be higher. Adibelli and Sümen (2020) emphasize that a virus that suddenly emerges and spreads rapidly affects many social dimensions besides the health.

In addition to health-based impacts, the global pandemic is affecting a broad range of international economic and trade activities, from services generally to tourism and hospitality, medical supplies and other global value chains, consumer electronics, and financial markets to energy, transportation, food, and a range of social activities (Douglas et al., 2020). The health and economic crises due to the pandemic could have a particularly negative impact on the economies of developing countries that are constrained by limited financial resources and where health systems could quickly become overloaded (Douglas et al., 2020). Douglas et al., (2020) added that people may experience loss of income from social distancing in several ways. Although some people can work at home, many cannot, especially those in public facing roles in service industries. Others may be affected by workplace closures, caused by government mandate, an infected co-worker, or loss of business. Parents may also be unable to work as school closures require them to provide childcare. School closure will affect low income and single parent families especially severely because they need to meet an unexpected need for childcare and lose the benefit of free school meals (Douglas et al., 2020).

Douglas et al. (2020) further argued that school closures may add to stress in families as parents try to home school children, often juggling this with home working. This burden may fall disproportionately on women. As well as academic learning, schools support development of social and other skills. Prolonged school closures could cause adverse effects on educational and social outcomes for young people in families that lack study space and access to home computing. Scott et al. (2020) aimed to identify what adolescents cited as their biggest challenges faced during the COVID-19 remote education and social-distancing policies. Researchers found that adolescents' most commonly cited challenge was academics and work habits. Mental and physical health challenges also reflected a high proportion of the responses, and friendship challenges were the fourth most common challenge described. Scott et al. (2020) claim that recent theoretical work suggests online learning poses significant barriers for adolescents although there are little data examining the effect of losing in-person schooling due to the COVID-19 pandemic. Importantly, schools serve as places to achieve developmentally crucial tasks for adolescents, such as establishing peer relationships. Although technology enables the continuity of relationship tasks, Scott et al. (2020) highlight that whether technology can address all of adolescents' social needs is unclear. As such, researchers have begun to investigate the psychosocial and academic affects associated with this unprecedented global pandemic.

How youth have been impacted by the pandemic, and which pre-existing factors show a relationship with the pandemic responses, is of high importance in considering vulnerable individuals. Youth with pre-pandemic mental health difficulties like ADHD could be at risk for worse well-being during and after the pandemic (Porter, Douglas, Larguinho, Mitchell, Roe, & Church, 2021). Porter et al. (2021) tested pre- ! ! ! ! ! ! !

well-being during the early parts of the COVID-19 pandemic. They found that youth pre-pandemic mental health difficulties, and especially ADHD symptoms, related to worse well-being during the early pandemic. Other findings included that younger youths showed fewer negative pandemic response, youth and their parents showed similar responses, and parental education level related to family economics during the early pandemic. The trajectory of ADHD symptoms over time also predicted cognitive difficulties during the pandemic (Porter et al., 2021). Porter et al. (2021) argue that understanding contributors to youth well-being early in COVID-19 may help to identify at-risk individuals and better interventions or resources for those youth.

Tasso, Hisli Sahin, and San Roman (2021) studied the academic and social implications of the COVID-19 disruption on college students. Their study used survey data from college students in a Belgium-based international study including more than 134,000 participants from 28 countries around the world. Two hundred fifty-seven college students from a U.S. university participated in this study (194 female adolescents and young women, 42 male adolescents and young men, 6 other, 15 unanswered). Analyses revealed that college students are affected by COVID-19 in many different ways, including fear of themselves or others contracting the virus,

affecting students is imperative to comprehensively attend to the mental health needs of those just entering adulthood and having experienced significant psychological and social disruption.

Gadermann et al. (2020) studied the mental health impacts of the COVID-19 pandemic on families with children in Canada. Specifically, the first wave of the COVID-19 pandemic, social isolation, school/childcare closures, and employment instability have created unprecedented conditions for families raising children at home (Gadermann et al., 2020). Results of the cross-sectional survey showed that in the early days of the first phase in Canada, nearly two in every five people reported worse mental health since the pandemic began. Furthermore, results showed an increase to nearly one in every two people reporting worse mental health for parents with children under 18 years old living at home. Gardermann et al. (2020) explain that a larger proportion of parents with children under 18 years old at home reported increased alcohol consumption, suicidal thoughts or feelings, self-harm and stress about being safe from physical or emotional domestic violence in the past 2 weeks as a result of the pandemic. This proportion increase can also be due to the pressure put on parents as schools/childcare, communities, and government systems play a critical role in supporting families, especially the families without reliable access to the internet or technology. Specifically, parents with children under 18 years
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education and being stressed about looking after children while continuing to work (Gardermann et al., 2020). Identifying both parent ! ! ! ! ! ! ! ! ! !
critical knowledge goal for future research to address.

The role of School Psychologists primarily focuses on the identification of students with disabilities, as well as recommendations for appropriate interventions and/or supports (Ritchie, Rogers, and Ford, 2021). Specifically, School Psychologists engage in assessments of students

who may have difficulties cognitively, academically, emotionally, socially, and/or behaviorally (Ritchie et al., 2021). Following the COVID-19 pandemic, school closures caused nearly all services to be modified. Ritchie et al. (2021) studied the impact of COVID-19 on school psychology practices in Canada to understand the impact the pandemic is having on the profession as well as the clientele they serve. The survey responses of 214 Canadian school psychology practitioners on their experience of the COVID-19 shutdown showed that COVID-19 has impacted most aspects of school psychology practice (Ritchie et al., 2021). Most respondents indicated that their job had changed significantly since the pandemic began, with nearly half reporting a decrease in hours, and almost a third had a decrease in income. Other results demonstrated that less time was spent on conducting assessments, report writing/paperwork, and mental health interventions. Overall, the changes in practice involved changes in job satisfaction, self-efficacy, and mental well-being (Ritchie et al, 2021).

Sex-and Gender Based-Analysis

Sex is a multidimensional biological construct (Johnson, Greaves & Repta, 2009; Government of Canada, 2019; World Health Organization (WHO); McGregor, Hasnain, Sandberg, Morrison, Berlin, & Trott, 2016). Sex as a set of biological attributes in humans and animals. Sex is primarily associated with physical and physiological features including chromosomes, gene expression, hormone levels, and function, and reproductive/sexual anatomy (Government of Canada, 2019; McGregor et al., 2016). Sex is typically categorized as female or male but the Government of Canada (2019) explains that there is variation is the biological attributes that comprise sex and how those attributes are expressed. Johnson et al. (2009) further explain ! ! ! ! ! ! ! ! ! ! ! ! ! constructed continuum. For example, research has revealed that while the "typical" sex

chromosomes are XX for females and XY for males, there are many variations in this genetic chromosomal dichotomy, such as XXY, XYY, XXX, and XO (no second chromosome). Therefore, the common binary understanding of sex (male/female) is limiting and unrepresentative of the variety of sexes that exist in human sex characteristics. The common assumption that animals and humans can only be one of two sexes (XX or XY) is reinforced by our limited language and has implications in research.

Gender is a multidimensional social construct (Johnson et al., 2009; Government of Canada, 2019; WHO; McGregor et al., 2016). The Government of Canada (2019) describes gender as socially constructed roles, behaviors, expressions, and identities of girls, women, boys, men, and gender diverse people. Johnson et al. (2009) adds that gender refers to the socially pr ! ! ! ! ! ! ! ! ! ! ! ! ! manifested at many levels. Gender influences how people perceive themselves and each other, how they act and interact, and the distribution of power resources in society (Government of Canada, 2019; McGregor et al., 2016). Although gender is usually conceptualized as binary (girl/woman and boy/man), there is considerable diversity in how individuals understand, experience and express their own gender (Government of Canada, 2019). Gender roles reflect the behavioural norms associated with males and females in societies that influence their everyday actions, expectations, and experiences. They are reflected in a range of ways including dress codes, mannerisms, posture, and societal opinions of worthwhile contributions to make as a woman or a man (Johnson et al., 2009). Gender identity describes how an individual sees themselves on the continua of female or male (or as a third gender (people who do not identify as male or female, but rather as neither, both, or a combination of male and female genders) or two-spirited (people who identify as having both a masculine and a feminine spirit, and is used by

some Indigenous people to describe their sexual gender and/or spiritual identity)) and influences their feelings and behaviours, whereas gender relations refer to how individuals interact with and are treated by others, based on their identified gender. Gender relations have a critical societal effect and can restrict or open opportunities for individuals (Johnson et al., 2009).

Johnson et al. (2009) state that in doing more sensitive, precise, and relevant health research, there is an increasing emphasis on attending to issues of sex and gender. Although much work has been done to promote sex and gender-based analyses in health research and to think critically about the influence of sex and gender on health behaviors and outcomes, there remain obstacles to effectively apply these concepts in health research. Johnson et al. (2009) argue that some researchers continue to ignore the concept of sex and gender or use the terms incorrectly. While gender has been a prominent concept in the social sciences for a long time, it has only relatively recently begun to enter the lexicon of biomedical and clinical health researchers (Johnson et al., 2009). Thus, gender is often confused with sex. Johnson et al. (2009) explain that in surveying literature, they found that gender is often mistakenly used as a substitute for sex. Using sex and gender accurately in health research requires a clear understanding of the two concepts.

The confusion of sex and gender lead to greater confusion about the contributions of sex and gender to health, incomplete analysis and reporting in health research, and potential missed opportunities for developing appropriate medical interventions and policy responses (Johnson et al., 2009). Sex and gender are multidimensional concepts, which means that any given individual is affected by multiple factors, including genetics, physiological characteristics, physical characteristics, gender identity, gender relations, and institutional gender. Additionally, sex and gender- related factors can interact and change as individuals move through the lifespan. Adding

sex and gender-sensitive measures allows for deeper analysis of complexities in research (Johnson et al., 2009). While adding a measure of sex or gender is usually only possible while data collection is still in progress, doing so can help to investigate sex or gender differences, and also quantifies differences in ways that are often not possible otherwise (Johnson et al., 2009). Sex and gender interactions influence health and well-being in a variety of ways, such as impacting environmental and occupational risks, risk-taking behaviours, access to health care, and health-seeking behaviour, health care quality, and perceived experience with health care, and thus disease prevalence and treatment outcome (McGregor et al., 2016). It is also of great importance that pharmaceutical agents differ between sexes, resulting in differential adverse event profiles and further impacting treatment outcomes. Thus, sex and gender are critical determinants of health and their distinction is important (McGregor et al., 2016).

Gender analysis, an examinat

identified gender (Government of Canada, 2019). The purpose of SGBA is to promote meticulous science that considers sex and gender and therefore has the potential to expand our understanding of health determinants for all people (Government of Canada, 2019). SGBA is meant to be enforced within the context of a diversity framework that considers the ways in which determinants such as ethnicity, socioeconomic status, disability, sexual orientation, migration status, age and geography interact with sex and/or gender to effect various risk factors, disease courses and outcomes (Government of Canada, 2019). Applying SGBA allows for these considerations to be recognized as core explanations and can help formulate health research, policies and programs that are of relevancy to diverse populations (Government of Canada, 2019).

Guidelines for Sex and Gender Equity in Research (SAGER) are comprehensive and useful in reporting both sex and gender information, data analysis, and results and interpretation of findings (Heidari et al., 2016). SAGER principles include using the terms sex and gender carefully to avoid confusion between the two, if possible, sex related differences, as well as gender differences must be discussed in the results even if they are unexpected (Heidari et al., 2016). Specifically, the sex and gender of participants, whether any differences are expected, how sex and gender were taken into account, and whether there is adequate representation must be reported (Heidari et al., 2016). Heidari et al. explain that exclusion of males or females must be reported, data should be divided into sex and gender and the outcome of the sex-and-gender based analyses are to be reported (2016). Lastly, it is important that any implications of sex and gender on the results and analyses are discussed and a rationale is provided if such analyses were not conducted (Heidari et al., 2016).

Even though there is a recognition of the importance of sex and gender in most areas of research, important knowledge gaps persist in regard to the general orientation of scientific attention to one sex or gender category (McGregor et al., 2016). McGregor et al. (2016) argues that the gap in the representation of women in studies on human subjects has been well-documented and the underrepresentation of women in research can result in adverse consequences. As described by McGregor et al. (2016), among ten prescription pharmaceuticals withdrawn from the US market between 1997 and 2001, eight caused greater harm to women than men. McGregor et al. (2016) also explained that the US Food and Drug Administration (FDA) issued a safety communication, recommending half a dose of zolpidem for women, due to greater susceptibility to the risks of the drug. A SGBA would have provided sufficient information to guide dosing and applicability of drugs for all populations in these studies.

Despite the increasing representation of male and female subjects in research and reporting of sex-specific and gender-specific data, McGregor et al. (2016) argues that existing policies have not been enforced. Lack of interest in sex and gender differences may not only be harmful but also present missed opportunities for innovation, as understanding the underlying differences and similarities, and exploring variability will lead to better approaches and solutions for society (McGregor et al., 2016). Editors play an important role as gatekeepers of science, including maintaining an ethical framework that influences research conduction. McGregor et al. (2016) explain that although policy implementation and enforcement continue to be difficult, journals could play an important role in advancing the quality and transparency of reported data by promoting sex- and gender-specific analysis. This analysis is important to consider in work with youth because their age group in particular are forming their identities and it is important to explore and report the range of identities that may be expressed.

Conclusion

Well-being is influenced by many factors such as positive and negative emotions, self-esteem, and academic achievement. Other factors include affective, physical, cognitive, spiritual, self and social aspects of well-being. The quality of social and emotional interactions in the classroom have been found to impact how the students are doing. High levels of life satisfaction may be an antecedent and a consequence of academic achievement/ high levels of life satisfaction have a positive influence on academic outcomes, which then increases future life satisfaction. Greater life satisfaction and greater scores on wellness indicators were related to positive rating of school climate by the students. Research further suggests that a supportive

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self-motivation and effectively predicting their degree of learning engagement. Students with high life satisfaction also reported more positive school experiences, a greater frequency of structured extracurricular activities participation, and higher GPAs than students with low satisfaction. Factors are also impacted by gender and the Covid-19 global pandemic.

In an effort to prevent the spread of COVID-19, the World Health Organization (WHO) recommends stopping activities that have the potential to cause mass crowds. For this reason, conventional learning that gathers many students in one room and working in close proximity changed quickly to alternative plans (Pragholapati, 2020). Instruction now must be implemented in ways that minimize physical contact between students, or between students and teachers. The alternative form of learning that has been put in place during the Covid-19 emergency-response in Nova Scotia has included more online learning (entirely unplanned online learning from March to June 2020), less group-work when physically together in classes, and no interaction with peers in other classes. These accommodations create barriers for many students and is

counter to pedagogical norms they have come to expect for their role as student. It is of utmost importance to consider this pandemic-response school context for current study of youth MWB.

Psychological research and practice have traditionally focused on the treatment of mental illness, ignoring aspects of well-being and promotion of positive functioning. Given that positive emotions are often experienced in interpersonal relationships, the current situation that requires maintaining social distance might inhibit the development of positive emotions and forms conditions that might result in a mental health crisis (Pragholapati, 2020). This is a novel study that will directly involve youth across Nova Scotia and provide information on how our students are doing. Youth MWB in Nova Scotia has not yet been studied, within the pandemic context or otherwise. We can do better for our youth.

Chapter 2

How are the Students Doing? An Investigation of Nova Scotian Youth Mental Well-Being

Introduction

Youth spend the majority of their days in school. This environment plays a critically important role in their social and emotional development (Guo, 2018). Student wellbeing is listed as a provincial priority according to the Department of Education and Early Childhood Development (DEECD, 2020). Of particular concern during the Coronavirus global pandemic, mental health crises are occurring worldwide, affecting individuals in a variety of ways. This demands the question: how are the students doing?

The COVID-19 pandemic is a non-natural disaster that can have an impact on the mental health and psychosocial conditions of everyone (Schwartz, 2021) According to WHO (2020), the

emergence of a pandemic caused stress to various levels of society (Pragholapati, 2020). The

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their use during the COVID-19 worldwide pandemic (Schwartz, 2021). For students who had their school years halted or majorly altered since mid-March 2020, however, these words remain meaningful as their access to classroom instruction, peer groups, teacher-mentors, and academic support were abruptly made unavailable, and for many youth continue to remain disrupted. For students who returned to school in the fall of 2020, classrooms and school buildings looked and felt very different. For example, physical distancing was required among students and teachers, masks were mandated, students may have experienced a modified curriculum and delivery, extracurricular activities were cancelled, classes were segregated, and students may have developed a heightened awareness of their own physical health as a result of the stress-inducing health protocols and check-ins (Schwartz, 2021). Given these disruptions, much has been speculated about the impact of the COVID-19 pandemic on academic achievement, peer relationships, and mental well-being among youth. Theoretical work suggests that these

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(Schwartz, 2021). Ideally, schools serve as places to flourish developmentally (Cherkowski & Walker, 2013) , such as establishing peer relationships, and whether those developmental needs are met under pandemic restrictions is unclear (Schwartz, 2021). It is important to investigate youth well-being in the context of the global pandemic directly from the youth-perspective.

Positive psychology is a field of study that seeks to understand human development and flourishing to promote public health. Positive psychology aims to help us understand ourselves, and to ultimately examine factors that could decrease rates of mental illness. Mental health can be defined as a favourable performance of mental function that allows for productive activities,

healthy relationships, and the ability to adapt to change (Keyes, 2002). An important aspect of mental health is a construct called Mental Well-Being (MWB). MWB is an important factor for all aspects of life, particularly academic and social success. Dimensions of well-being include self-acceptance, positive relations with others, personal growth, purpose in life, environmental mastery, and autonomy. These dimensions of positive functioning suggest that people are functioning well when they like most parts of themselves, have warm and trusting relationships, see themselves developing into better people, have a direction in life, are able to shape their environments to satisfy their needs, and have a degree of self-determination (Keyes, 2002).

Within the domain of mental health, the importance of subjective measures of well-being has been widely recognized (Roothman, 2003). Subjective well-being (SWB) is a psychological ! ! ! ! ! ! ! ! ! ! ! ! of life satisfaction (Diener at al., 1999). Moods and emotions, which together are labeled affect, ! ! -line evaluations of the events that occur in their lives. More specifically, SWB refers to the emotional quality that an individual experiences. The quality reflects the presence or absence of positive feelings about life and their responses to positive affect, negative affect, and perceived life satisfaction (Keyes, 2002).

SWB in school, representing how students subjectively evaluate and emotionally ! ! ! ! ! ! ! ! ! ! ! ! ! ! (Gilman & Huebner, 2006). Yang et al. (2019) examined the longitudinal association between academic achievement, self-esteem, and subjective well-being. Descriptive statistics and a series of regression models showed a positive significant correlation between subjective well-being, academic achievement, and self-esteem. Yang et al. (2019) indicated that they controlled for

gender as previous research indicated that gender affects the study variables (i.e., academic achievement, self-esteem, and subjective well-being). Gender differences are of interest to numerous researchers attempting to conceptualise well-being. Lack of interest in sex and gender differences leads to incomplete analyses and reporting in health research and potential missed opportunities for developing appropriate responses and innovations, as examining these differences allows for better approaches and solutions for society (McGregor et al., 2016).

Both academic success and SWB can be viewed as central indicators of positive psychological functioning (Guo, 2018). A large number of studies suggest that SWB in school correlates with, and in some cases predicts, important variables suc ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! behaviors (Guo, 2018; Ng, Huebner, and Hills, 2015; Yang et al., 2019). In examining the characteristics of adolescents reporting high levels of global life satisfaction, students with high life satisfaction reported more positive school experiences, a greater frequency of structured extracurricular activities, participation, and higher GPAs than students reporting low levels of satisfaction (Gilman and Huebner, 2006). Youth reporting high global life satisfaction also reported significantly higher scores on all measures of academic, interpersonal, and intrapersonal functioning than youth reporting low life satisfaction (Gilman and Huebner, 2006). Student engagement is also crucial to academic achievement. The emotional connections students have in their classrooms are likely to impact their success in school (Yang et al., 2019). Reyes et al. (2012) found that the positive relationship between classroom emotional climate and grades was mediated by engagement, while controlling for teacher characteristics and observations of both the organizational and instructional climates of the classrooms.

As the world enters various phases of recovery from COVID-19, millions of Nova Scotian students are unsure what to expect in countless forms and employing diverse delivery platforms. There is much interest in the mental and behavioral health of students as they re-engage with their schools, curricula, teachers, and peers. We aimed to better understand and address achievement gaps in Nova Scotia in evidence- ! ! ! ! demographic profiles and individual school experiences as correlated to subjective well-being. The objective of this study was to provide an initial description using statistics and qualitative responses from students to understand how the students are doing. In an effort to promote youth MWB, the current study sought to answer: 1. How does self-reported Mental Well-Being vary across participants !identities both from within school and general life self-reports? 2. What are experiences coping with the global pandemic in relation to their MWB? We hypothesized that Nova Scotian youth would report low levels of MWB, specifically in relation to the ongoing global pandemic.

Methods

Methodology

This research followed a pragmatic approach. Pragmatism believes there to be not just one system of philosophy and reality, and researchers should choose the methods, techniques, and procedures of research that best meet their needs and purposes (Creswell, 2003). Using this approach applies to multiple methods research (drawing from both quantitative and qualitative), in that researchers are free to draw liberally from both approaches rather than subscribing to just one approach (e.g., quantitative or qualitative; Creswell, 2003). Specifically, this study took a multiple-methods design. A multiple methods design was useful to capture the best of both quantitative and qualitative approaches. Furthermore, for the qualitative arm of this project, a

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experiences. A qualitative description approach refers to an investigation aiming to describe the s perception and experience of the world (Neergaard, Olesen, Anderson, & Sondergaard, 2009). Interpreting the various perspectives of others allow for the discovery of common themes, moving beyond what the participant reported, clustering together common ideas from multiple individuals to represent the data (Braun & Clarke, 2006).

Participants

Participants are Nova Scotian youth (i.e., the period between childhood and maturity; Merriam-Webster) between the ages of 16 and 19 years old, who were registered in a Nova Scotia high school and could complete an English-language survey. The sample consisted of 29 high school students between the ages of 16-19 years old (M = 16.45, SD = .736). Within the 29 participants, four students were in grade 10, 13 students were in grade 11, and 12 students were in grade 12. Their academic achievement ranged between 66% and 99% (M = 87.59, SD = 8.219). A visual of geographical location of the participants is represented by a map in Appendix E.

Thirteen participants identified their gender identity as male, 12 participants identified as female, one participant identified as fluid, one participant identified as transgender male, and two participants did not report their gender identity. Specifically, two respondents reportedly do not fall within the traditional gender binary. Fifteen participants identified their sex as male and 14 participants identified their sex as female. Twenty-one participants identified their sexual orientation as heterosexual/straight, five participants identified as bisexual, one participant identified as fluid, one participant identified as pansexual, and one participant did not report their sexual orientation.

Nineteen participants identified as Euro-Canadian, three participants identified as First Nations, Metis, or Inuit as well as Euro-Canadian, two participants identified as White, one participant identified as Chinese, one participant identified as Euro-Canadian and South East Asian, one participant identified as Middle Eastern or North African, and one participant did not report their racial and ethnic group. No incentives were provided.

Materials

Demographics

Participants completed a demographic questionnaire at the beginning of the survey. For Nova Scotian youth, this was used to collect demographic information about age, grade level, sexual identity, gender identity, racial/ethnic identity, health diagnoses, and postal code.

Warwick-Edinburgh Mental Well-Being Scale

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) was used in this study to assess Mental Well-Being. It was developed by researchers at the Universities of Warwick and Edinburgh to measure the well-being of adults in the UK (Tennant et al., 2007). The WEMWBS is a 14-item scale of mental well-being, subjective well-being and psychological functioning (Tennant et al., 2007). All items on the scale are worded positively and address aspects of positive mental health (e.g., I've been feeling relaxed, I have been thinking clearly; Stewart-Brown et al., 2009). The scale is scored by summing responses to each item answered on a 1 to 5 Likert scale ranging from of the to of the (Tennant et al., 2007). WEMWBS has been validated for use in the UK with those aged 16 and above. Validation involved both student and general population samples, and focus groups (Stewart-Brown et al.,

2009). This WEMWBS scale covers both aspects of mental well-being feelings and functioning aspects of mental well-being.

Open-Ended Qualitative Questions

I asked the following three qualitative questions immediately following the WEMWBS scale: 1. How do you feel about your life as a whole these days? 2. Do you feel that the pandemic has affected your well-being? If so, please share some examples. 3. How has the pandemic shaped your experiences at school? These questions were designed to elaborate on the preceding scale and give opportunity for students to share their own perspectives on well-being and provide contextual detail.

Procedure

Youth in Nova Scotia were made aware of this study through advertisements in public libraries, on regional public library webpages, through Feed Nova Scotia, and on social media such as Instagram and TikTok. An online survey asked youth about their general mental well-being and their mental well-being surrounding the COVID-19 global pandemic, specifically in relation to their perceived academic experience.

Data Analysis

I qualitatively investigated the COVID-19 impact on MWB. This was explored by asking open-ended questions regarding subjective MWB as a reflection to when the global pandemic first began, and questions of recent subjective MWB.

Qualitative data was analysed by constant-comparative inductive analysis (Glaser, 1965), working directly from student-voice to generate themes and capture verbatim quotes about well-being within the pandemic-context. The first step of the constant-comparative analysis was to directly compare units of analysis (phrases) directly to each other to create categories of different

experiences as they emerge from student-responses. Secondly, while this coding took place, analytic memos were linked to places in the data where the researcher reflects on or generates broader meanings from the data being categorized. These memos helped to differentiate later theming based on speculation or grounded in the students direct-voice. These two steps were conducted iteratively until all phrases had been coded. The third stage of qualitative analysis involved integrating conceptually related categories by comparing each category to every other category. This generated conceptually interconnected themes. The final stage of analysis was to present the generated themes in an integrated way and to explain the themes with verbatim quotes. During this process, the themes were compared back to the raw data. Raw data that were not yet captured by the themes were revisited, and coding was iteratively revisited until the data was saturated (fully captured).

Sex-and gender-based analysis of mental well-being is of critical importance in health-based research. This analysis was implemented by following the Sex and Gender Equity in Research (SAGER) guidelines, which improved the generalizability and applicability of this study (Heidari et al., 2016). SAGER guidelines are designed to promote systematic reporting of sex and gender in research. The guidelines provide researchers and authors with a tool to standardize sex and gender reporting in scientific publications and raise awareness for the importance of sex and gender information in research (Heidari et al., 2016). This analysis was important to provide descriptive statistics for all participants and their identified gender and to investigate the gender makeup across qualitative themes.

Detailed descriptive statistics with confidence intervals for cross-study comparisons (Tabachnick & Fidell, 2019) were reported. Statistical results were situated within qualitative contextual detail and verbatim quotes to represent student-voice.

Results

Quantitative Results

Descriptive Statistics

The Warwick-Edinburgh Mental Well-Being Scale (WEMWBS) descriptive statistics are reported in Table 1. Normality was tested using Shapiro-Wilk, .967. Internal reliability for

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sufficiently normal. A crosstabulation of sex and gender is represented in Table 2. Two respondents reported to not fall within the traditional gender binary.

Table 1.

	Mean	Std. Deviation	95% CI	Minimum	Maximum	Range
WEMWBS Total	45.448	10.576	42.357-50.395	21	63	42
Female	41.143	10.443	35.113-47.172	21	57	36
Male	51.4	8.7	46.582-56.218	39	63	24

Table 2.

		Sex		
		Female	Male	Total
Gender	No response	1	1	2
	Female	12	0	12
	Fluid	0	1	1
	Male	0	13	13
	Transgender Male	1	0	1
	Total	14	15	29

Qualitative Results

Of the 29 participants, 14 participants completed the qualitative questionnaire. Eight participants identified their sex as Female and six participants identified as Male. Six participants identified their gender as Female, five participants identified as Male, one participant identified

as Transgender Male, one participant identified as Fluid, and one participant did not respond about their gender identity.

! ! ! ! ! ! ! ! ! ! ! one overarching theme, *Emotional Distress*, with four additional interconnected themes: *Academics and School Environment*, *Specific Health Issues*, *Social Needs*, and *Positive Outcomes*. This is a similar finding to Schwartz et al. (2021) that found that COVID-19 is perceived as a threat to both health and social relationships by some youth. Stress and anxiety are two signs of emotional distress that have been mentioned by participants. Students noted that they endured many changes and had to adapt to situations that have made them feel overwhelmed and distressed. A student expressed: *COVID is making me and the people around me very stressed and worried which resulted in not always being in the right head space* ! ! ! ! ! ! regarding both their mental and physical health. More specifically, students noted emotional distress surrounding academics (exams and university applications), health-related concerns, and the return to in-person learning while COVID remains worrisome.

Of the themes that have emerged, we did not identify a notable difference between males (sex) and females (sex) in any of the themes. Specifically, the *Academics and School Environment* theme was reported a concern by five males and five females; the *Specific Health Issues* theme was reported a concern by two males and one female; the *Social Needs* theme was reported a concern by two females and two males; the *Positive Outcomes* theme was reported by two females and one male. The results for those who identified as gender-diverse did not report different experiences from those who fall within the gender binary. Specifically, the participant who identified as fluid reported academic and work-related stress as well as positive outcomes,

and the participant who identified as a transgender male reported academic and work-related stress.

Academics and School Environment

Students reported various concerns regarding academic difficulties during the COVID-19 pandemic. Students have expressed feeling as though online school has created barriers to fulfilling educational needs and they are experiencing a lack of motivation and confidence. For example, a student reported: *online school has made me very behind in the knowledge I have, time.* In addition, another student noted: *when we have shut-downs and curriculum gets cut, future school years.* Stress of exams and workload was also expressed. Students reported that their schools did not accommodate for exams:

exams where other schools cancelled them, had process exams, lowered their worth, etc/ ! ! *the workload is a lot.* ! ! ! ! ! ! ! ! ! ! schools have handled the pandemic and the school environment. Students noted feeling a lack of

! ! ! ! ! *know at my large school is comfortable being back.* ! ! ! ! ! ! ! ! ! *my school handled the pandemic so poorly it forced me to drop out.* Students also felt as though their school was not a safe place to be: *all the talk about making school safer is a joke because nothing was really done*.

Specific Health Issues

As a result of COVID-19, students are left feeling unsafe in schools due to preceding health concerns. This theme was less frequently discussed, but very meaningful for those that

commented on it. Students reported feeling: *constantly afraid because I am immunocompromised and not all teens are taking this seriously* ! ! *m anxious about current for me.* ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! followed as students are worried of getting covid, particularly those that are immunocompromised. Students mentioned feeling worried for both themselves, and their peers ! ! ! !

Social Needs

! ! ! ! ! ! *social skills have gotten worse* ! ! ! ! *lost a number of opportunities related to sports, music, and school because of everything being cancelled.* Students also expressed that the pandemic has taken away experiences and made many social needs difficult to meet. A lack of motivation has been noted throughout the responses. For example, students have reported having romantic relationship difficulties, which is an important developmental milestone for this age group. Other students have reported a concern with their sports skills.

Positive Outcomes

While most respondents noted concerns, some students made note of positive outcomes. A student reported: *the pandemic has given me a new insight on how many things I take for granted.* ! -taking and strengthening of relationships have been expressed as positive outcomes as a result of the pandemic isolation periods. For example, a student mentioned feeling ! ! ! ! ! ! ! *school is fulfilling, and I have meaningful relationships with people in my life.* For some students, having an opportunity to slow down demands with online

learning has also created more time to hang out with friends, make healthier choices, and create *stronger bonds with family* ! ! ! ! *ok* ! ! *good* ! ! ! !

Discussion

Summary

In this paper, I extended the literature on the effects of COVID-19 on well-being, specifically in regard to students. There is much interest in the mental and behavioral health of students as they re-engage with their schools, curricula, teachers, and peers. The objective of this study was to provide an initial description using statistics and qualitative responses from students to understand how the students are doing. We anticipated that Nova Scotian youth would report low levels of MWB, specifically in relation to the ongoing global pandemic.

Results of the Warwick-Edinburgh Mental Well-Being Scale highlighted that although some Nova Scotian students are doing well, there are many students who reported not doing well. As anticipated, Nova Scotian youth are reporting low levels of mental well-being. The maximum score on WEMWBS is a 70 and there are students who self-reported a score as small as 21, meaning students reported low levels of well-being. Similarly, The Department of Pediatrics and Healthy Populations Institute (2022) reported that 1 in 5 Nova Scotian students reported low life satisfaction. This is an important finding because student wellbeing in listed as a provincial priority according to the Department of Education and Early Childhood Development (DEECD, 2020). These findings are also important in addressing achievement gaps in Nova Scotia, as many studies found that youth reporting high levels of mental well-being also reported significantly higher scores on all measures of academic, interpersonal, and intrapersonal functioning than youth reporting low levels of mental well-being. With this information, we are better able to support Nova Scotian youth. The Department of Pediatrics and Healthy

Populations Institute emphasize a quote from a respondent in the Craig W et al. (2020) study,

! ! ! gling in Nova Scotia, our province is struggling, our future is

/! ! ! ! ! ! ! ! ! ! ! ! ! ! !

society will shape the future (Craig W et al., 2020 in The Department of Pediatrics and Healthy Populations Institute, 2022).

More specifically, results of WEMWBS also demonstrated that males (sex) reported higher levels of mental well-being than females (sex). Similarly, Roothman, Kirsten, and Wissing (2003) found that men scored significantly higher on cognitive, physical, and self-aspects of psychological well-being than women. These findings may emphasize that if a lack of vulnerability is a traditionally defined standard for masculinity, it is expected of men to evaluate themselves highly in order to avoid risking conflict with their own gender role identification.

Scott et al. (2020) explained that scientists have warned that COVID-19 will have unprecedented effects on mental health, which is consistent with our findings. The results of the qualitative open-ended questions indicate that the student population is experiencing emotional distress on many levels and in many different ways. The four most reoccurring themes are: Academic/school environment concerns, social needs concerns, and health-related concerns, and positive outcomes following the pandemic. On a positive note, according to Fredrickson (2001), positive emotions serve as markers of flourishing, or optimal well-being. This suggests that the participants who noted positive outcomes following the pandemic may be flourishing as a result of characterizing moments of the pandemic as experiences of positive emotions.

The most commonly cited challenges include academic and work-related stress, with mental/physical challenges, and social challenges being emphasized as well. In accordance with Tasso, Hisli Sahin, and San Roman (2021), students are experiencing fear towards virus

contraction due to prior health-related concerns, apprehension about changes in curriculum delivery, and academic-related distress following exams and remote learning. Other important findings suggest that students are concerned about their social needs, as schools serve as places to achieve developmentally crucial tasks for adolescents, such as establishing peer relationships. Of most importance, findings demonstrate that students are experiencing emotional distress, and signs of lower levels of mental well-being, in many domains of their lives. As hypothesized, findings suggest that not all students are doing okay during the COVID-19 pandemic.

Contrarily to Schwartz et al. (2020), we did not note a significant difference in emotional distress between males (sex) and females (sex). Both male and female respondents identified emotional distress in the areas of academic success/school environment, health-related concerns, and social needs. Furthermore, both males and females reported positive outcomes during the pandemic.

At a more general level, increasing awareness of student well-being in Nova Scotian is crucial to creating a better school experience. Gilman and Huebner (2006) highlighted that youth reporting higher levels of MWB reported more positive relationships with others, less interpersonal distress (such as anxiety and depression), higher GPAs, and less social stress than youth reporting lower levels of MWB. COVID-19 has created significant stressors and barriers to basic psychological needs for MWB. Our youth are not doing okay and we can do better to support them.

Limitations

A limitation of this study is that participants self-reported their mental well-being. Both qualitative and quantitative self-reports are subject to biases such as social desirability (giving the more socially acceptable answer rather than being truthful) or introspective ability (may not

be able to assess themselves accurately). These types of biases are inevitable when we are seeking to represent first-voice perspectives. Another limitation is that we only had a small sample size, which is not generalizable to the entire province of Nova Scotia, as most respondents were from the Halifax Regional Municipality area. Furthermore, the qualitative questions were not accessible to all 29 respondents, as they were only added to the survey at a later date.

Future Research

Future directions may include replicating this study with a larger sample size. It would be beneficial to advertise this study in schools across the province for a more generalizable representation. This could perhaps be made possible with travelling into each school to discuss the importance of the research while handing out a paper-copy survey to those who wish to participate. More research is needed to assess the generalizability of our results to other regions. Because the aim of qualitative description was to present student voices across the province, there must be experiences that have not been captured, meaning we would need a larger sample size to saturate the data. We, as a province, need to be better on provincial-scale research efforts. Future research should also link qualitative to quantitative in a mixed-methods design to corroborate findings. Quantitatively, if data were identifiable, you could go back to participants for member checking. This would improve rigour and trustworthiness of the data. Qualitatively, we could improve the depth ! ! ! ! s regarding their perception and experience of the world, perhaps through focus groups with youth to gain the opportunity to follow up on answers given by respondents in real time, generating valuable conversation around a subject. I would suggest a few groups within each regional centre for education geographical

area. Future research should also continue to explore the impacts as the pandemic continues to evolve.

Knowledge Dissemination

This thesis will be made publicly available through the MSVU thesis repository. Lessons

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Appendix A

INFORMED CONSENT FORM

Study title: How are the students doing? A study of Nova Scotian youth aged 10 to 14.

Principle Investigators:

Krista C. Ritchie, PhD
Assistant Professor
Faculty of Education,
Mount Saint Vincent University

Sara King, PhD, RPsych
Associate Professor
Faculty of Education,
Mount Saint Vincent University

Introduction and Purpose:

The study of positive psychology (how people thrive and function on a daily basis) can help us understand ourselves, and also contribute to evidence regarding protective factors that could decrease rates of mental illness. This field is highly relevant to professionals who work with people, such as teachers, not in a clinical capacity, but in a capacity where an understanding of psychological processes and development can inform their work. An important aspect of mental health is represented by researchers through a construct called Mental Well-Being (MWB). We will explore the mental well-being of Nova Scotian youth and the extent to which well-being might differ across multiple social factors and, in turn, influence academic and social success.

How will the researchers do the study? What will I be asked to do?

Any youth and their immediate caregivers from the province of Nova Scotia can participate in this study. If you are reading this consent form, you have access to this form and an online survey. The online survey will ask you about your mental well-being and will ask your parents about household demographic information to estimate socioeconomic status. Additionally, an identified peer will be asked to complete a survey regarding your mental well-being. Please do not provide any identifying information, participation is anonymous.

Potential Harms and Burdens.
There are minimal expected harms. This study is focussed entirely on what you feel comfortable sharing, however, you may experience psychological or emotional discomfort (e.g., anxiety, stress, loss of confidence, regret for disclosing personal information). It is hoped that the findings will shed light on the importance and need for prioritizing student well-being.

Can I withdraw from the study?
You may withdraw from the study at any point. Participation is entirely voluntary. Withdrawal will not affect you in any way. If you begin to complete a survey and change your mind, simply discard the survey. The surveys are anonymous. Once you electronically submit your survey, it cannot be identified and will be included in the data set to be analyzed.

Costs, reimbursements and incentives.
There will be no cost to you to participate in this study. There will be no reimbursement for time spent completing the survey. There is no potential to profit from or commercialize results of this research.

How will my privacy be protected?
Any information that is learned about you will be non-identifiable and anonymous. Electronic data are stored on password protected, secure MSVU databases and will be deleted 5 years post-publication.

What if I have study questions or problems?
For questions or concerns, please contact Dr. Krista Ritchie, krista.ritchie@msvu.ca. You may also contact Brenda Gagne, Research Ethics Coordinator at Mount Saint Vincent University at brenda.gagne@msvu.ca.

What are my Research Rights?
Reading this consent form and submission of the survey indicates that you have agreed to take part in this research and for your responses to be used for research purposes. In no way does this waive your legal rights nor release the investigator(s) or involved institution(s) from their legal and professional responsibilities. If you have any questions at any time during or after the study about research in general, you may contact the University Research Ethics Board at brenda.gagne@msvu.ca or visit the Research Ethics Office at Evaristus Room 223A.

How will I be informed of study results?
We plan to create a brief online presentation for public access to disseminate our findings broadly through social media. We also plan to prepare a report to the Province aligned with current provincial priorities. As well, we will prepare

and submit a manuscript to an academic journal and present our findings to national and/or international conference(s).

Appendix B

Demographics Form

Please respond to the following demographic items. These will be used to describe the group of people who participate in this study.

With which racial and ethnic group(s) do you identify? ***(Mark all that apply)***

- ❍ African Canadian
- ❍ South-East Asian
- ❍ Chinese
- ❍ First Nations, Métis, or Inuit
- ❍ Indo-Canadian
- ❍ East Indian
- ❍ Middle Eastern or North African
- ❍ Hispanic, Latino, or Spanish Origin
- ❍ Euro-Canadian
- ❍ Another race or ethnicity not listed above _____

How do you describe your gender identity?

_____

3. **How do you describe your sex?**

- ❍ Male
- ❍ Female
- ❍ Intersex

How do you describe your sexual identity? ***(Mark all that apply)***

- ❍ Heterosexual / straight
- ❍ Homosexual / gay / lesbian
- ❍ Bisexual
- ❍ Asexual
- ❍ A sexuality not listed _____

Your Age: _____

Your Grade: _____

Your Postal Code: _____

Appendix C

Authors of this study have permission to use the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The scale is registered through https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs/using , under Dr. Krista Ritchie. Please visit https://warwick.ac.uk/fac/sci/med/research/platform/wemwbs for more information on the WEMWBS.

Appendix D

1. How do you feel about your life as a whole these days?

2. Do you feel that the pandemic has affected your well-being? If so, please share some examples.

3. How has the pandemic shaped your experiences at school?

Appendix E

Participant Geographical Location in Nova Scotia

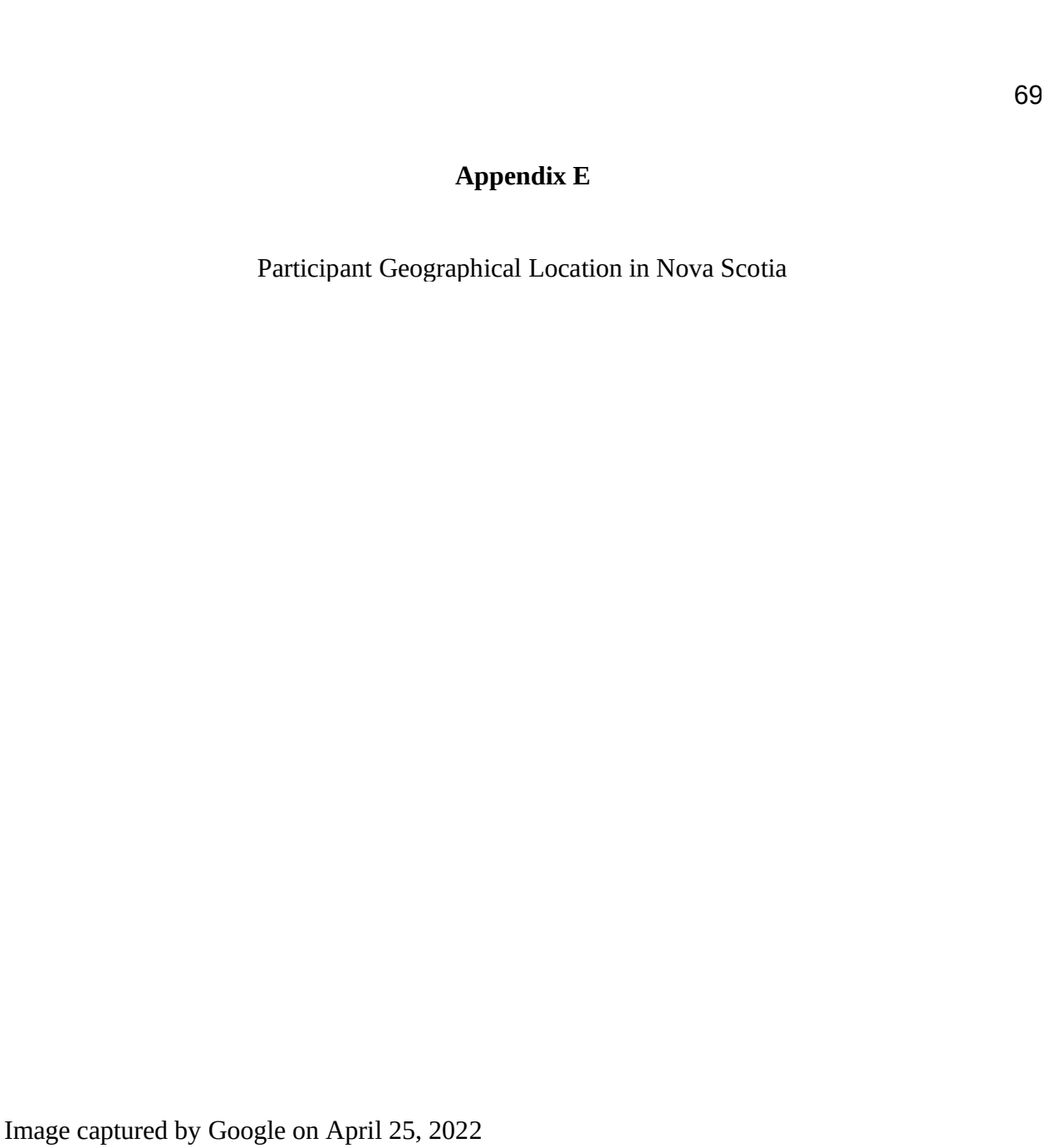

Image captured by Google on April 25, 2022