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Evaluating the Impact of a Mental Health Literacy Course on Pre-Service Teachers' Self-Efficacy, Attitudes Toward Trauma-Informed Care, Classroom Management, and Relationship Building

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in Education

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Abstract

Youth mental health distress has increased in recent years, creating a sense of urgency among teachers regarding preparation, knowledge, and a need for education. To address this need, this program evaluation study evaluated a 12-week mental health literacy course offered as part of a mandatory curriculum at a large Canadian university's Faculty of Education. The goals of the course include amplifying preservice teachers' sense of school mental health awareness, confidence, and relationship building through a trauma and violence and culturally informed approach. Results indicate that incorporating a mental health informed curriculum can positively influence perceived self-efficacy in providing mental health support, attitudes towards trauma-informed care, the ability to foster a mental health healthy classroom environment, and the quality of interactions preservice educators have with students. Perceived self-efficacy in trauma-informed care did not improve as a result of the course, suggesting that supporting classroom mental health and supporting classroom trauma are two distinct practices.

Keywords: Mental Health Literacy, Teacher Self-Efficacy, Attitudes Toward Trauma-Informed Care, Teacher Well-Being

Summary for Lay Audience

Given the rising rates of mental health concerns and the lack of teacher preparedness in addressing student mental health issues, this study investigates the effectiveness of a 12-week mental health literacy course in positively influencing preservice teachers' competencies as they prepare to work with students who may have mental health concerns. Results suggest that the mental health literacy course raised preservice teachers' sense of self-efficacy in providing mental health support, attitudes toward trauma-informed care, the ability to create a positive classroom environment, and the quality of interactions held with students. However, self-efficacy in trauma-informed care did not significantly improve due to the course. These results are promising and serve as valuable insight into how to educate teacher candidates to develop mental health literacy. Since teachers spend an enormous amount of time with students, they are uniquely positioned to notice changes or atypical mental health concerns in their students. The implementation of mental health literacy curricula in teacher education could improve the trajectory of students with mental health concerns who might otherwise go unnoticed.

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Chapter 1: Introduction

Spanning the past several decades, youth mental illness prevalence rates have increased (Weinberger et al., 2017) while the educational system has steadily adopted higher educational standards and expectations (Darling-Hammond, 2006). The additional pressures faced by students with mental health concerns or illnesses together with the lack of youth mental health support have long been recognized as an issue by both the academy and practitioners (Graham et al., 2011); in the early 1990s, the American Psychological Association (APA) formed a Child and Adolescent Mental Health task force that aimed to raise awareness, train professional providers (i.e., schoolteachers, psychologists, social workers, etc.), increase funding, improve access to services, and promote overall public perception of youth mental health (Henngeler et al., 1994). However, despite youth mental health being identified as a pressing issue for nearly three decades, efforts to track, implement, and improve the resources available to students with mental health concerns have not met expectations in providing effective mental health care (Kutcher et al., 2018) and has resulted in what is described as a highly inequitable and disadvantageous environment for students (Gardner et al., 2020; Koller & Bertel, 2006; Moore & Gammie, 2018). With this in mind this study addresses student mental health via initial teacher education and specific inclusion of curricula regarding how to support student mental health. Specifically, this study investigates whether a mental health literacy course will improve preservice teachers' sense of mental health self-efficacy, attitudes, knowledge, and well-being. Within the context of this study, the terms "mental health problems" and "mental health concerns" are used interchangeably, while the term "mental illness" refers to the identification of disease according to standard diagnostic criteria (e.g., DSM-V) by a qualified professional. Additionally, the terms "young children" and "youth" will be used to refer to all children and adolescents aged 4–17 years of age. Teacher mental health self-efficacy can be broadly defined as the belief teachers hold in their abilities to support student mental health concerns (Brann et al., 2020). Additionally, while this study may have relevance to the teaching discipline as a whole, the investigation focuses on preservice teacher education candidates attending a post-graduate Bachelor of Education program at a large southwestern university in Ontario, Canada.

Theoretical Frameworks

Dual Continuum Model of Mental Health

Three theoretical frameworks that underpin this investigation will be discussed in order to frame this study. Primarily, it is important to define mental health, and the current study employs Corey Keyes' (2002) Dual Continuum Model of mental health and well-being. Keyes posits that positive and negative functioning depends on two dimensions: mental health (i.e., our welfare, including but not limited to levels of happiness, diet, sleep routine, levels of stress, etc.) and mental illness (i.e., the presence of a functional difficulty which warrants a diagnosis). Moreover, mental health and mental illness hold a bidirectional influence on each other, and the amalgamation of both factors dictates the overall functioning and well-being of an individual. Lastly, according to Keyes (2002), our placement in the mental well-being continuum is a fluid and ever-evolving process, and changes may occur day-to-day.

Self-Efficacy Theory

Teacher Self-Efficacy. Another theoretical framework underlying this study is Albert Bandura's (1997) Self-Efficacy theory. Originating from social cognitive theory, self-efficacy is the belief that an individual possesses when envisioning their ability to complete an objective (Bandura, 2006). Self-efficacy is an important construct for measuring the successful completion of tasks because it dictates one's level of influence and effort (Bandura, 1997; Brann et al., 2020). Researchers have also extended the notion of self-efficacy within the teaching context; teacher self-efficacy has been defined as the belief a teacher has towards their ability to positively affect student performance (Berman et al., 1977; Brann et al., 2020), and studies have demonstrated that it holds a significant influence on teacher satisfaction, stress, burnout, and student productivity (Betoret, 2006; Brann et al., 2020; Brouwers & Tomic, 1999).

Teacher Mental Health Self-Efficacy. Researchers have also extended teachers' sense of self-efficacy towards their ability to engage in a mental health role within schools. Simply put, "teacher mental health self-efficacy is defined as a teacher's belief in their capacity to successfully support students' mental health needs." (Brann et al., 2020, p. 3). Mental health self-efficacy, according to Brann and colleagues (2020), reflects three teacher outcomes: 1) levels of confidence in interactions with students with mental health concerns, 2) perceived competencies in noticing mental health symptoms in students, and 3) the ability to engage in hierarchical escalation (i.e., referring students to the appropriate health care professional and/or resource).

Self-Determination Theory

The last relevant theoretical underpinning of this investigation is Deci & Ryan's (2008) self-determination theory (SDT). SDT is a theory of human motivation which may help explain the process of shifting preservice teachers' self-efficacy and attitudes. Specifically, SDT posits that autonomy, competence, and relatedness are factors that can either greatly positively or negatively influence motivation. Described as "a set of universal psychological needs that must be satisfied for effective functioning and psychological health" (p. 183), these factors not only dictate the level of effort exerted toward a task, but they also have positive associations with the successful completing of a task and higher levels of well-being and resilience (Bandura, 2009; Deci & Ryan, 2008). While examining the psychological needs of new teachers within the educational context has been an understudied part of the literature (Parker et al., 2019), there is some indication that when teacher candidates possess a sense of autonomy, competence, and relatedness, this increases the number of positive teaching behaviours displayed by teachers (Korthagen & Evelein, 2016). Ultimately, viewing changes in behaviour through SDT will help to conceptualize the necessary elements that best allow shifts in teacher behaviour (Veenker & Paans, 2016)

Chapter 2: Literature Review

The Youth Mental Health Crisis

The World Health Organization has observed that up to 50% of mental illnesses emerge before a child's 18th birthday (Kessler et al., 2005). When untreated, major bouts of mental health illness in adolescence have been seen to correlate with an increase in suicide and substance abuse in young adulthood (Anderson et al., 2019; O'Neil et al., 2011; Papandrea & Winefield, 2011). Further compounding this issue, researchers have recently observed a significant rise in the prevalence rates of mental illness among youth. For instance, Weinberger and colleagues (2017), having collected mental illness data over ten years in the United States ($n = 607,520$), found more than a 40% increase in the prevalence rate of depression for young children between 2005 and 2015. The increase in prevalence rates for young children was also found to be the most significant growth over all other age groups (Weinberger et al., 2017). In Canada, a similar narrative has been unfolding.

Recent research indicates that there is both an increase in emotional disorders among Canadian youth and an increase in the perceived need for professional help among 4- to 16-year-olds with geographical disparities; for example, families living in rural and smaller urban areas have reported a disproportionately higher need in this domain compared to their urban counterparts (Comeau et al., 2019). Data also suggests that youth mental health has worsened over time: for example, in 1983, the province of Ontario launched a province-wide, cross-sectional epidemiologic study called the Ontario Child Health Study (OCHS) that aimed to periodically investigate youth mental health rates (OCHS, 2021). Drawing from the OCHS, Cadman et al. (1988) showed that 15-20% of Ontarian children aged 4–16 years old ($n = 3294$) were identified as having a mental health concern. Over 30 years later, the OCHS's most recent query ($n = 6537$ families) found that while youth mental health prevalence rates managed to marginally tick upward to around 18–22%, this was enough of a change to produce significant increases in anxiety, depression, and hyperactivity for this population (Boyle et al., 2019). Building off the data from the OCHS, Georgiades et al. (2019) further reported that fewer than one in three youth with mental health concerns receive care from a mental health professional (defined as either a psychiatrist, psychologist, or social worker). For those who do seek aid, they are typically met with troubling wait times of 6–12 months (Centre for Addiction and Mental Health, 2015; Government of Canada, 2006; Lysyk, 2016).

Data collected between 2006 and 2017 through the Registered Persons Database (i.e., the repository for individuals registered through Ontario's universal health coverage; $n =$ approx. 4,000,000) further corroborates the notion that youth mental health illness cases are increasing within Ontario, reporting an alarming 89% increase in mental health or addiction-related emergency department visits for children and young adults aged 14–21 (Chiu et al., 2020). While the exact antecedents relating to this increase in mental health have been difficult to pinpoint (Frasquilho et al. 2016), several predictors of declining mental health have been observed. For example, the APA (2014) conducted a national survey on how adults (aged 18+, $n = 1950$) and teenagers (aged 13–17, $n = 1018$) fared with respect to stress. The results found that stress levels for 59% of young respondents exceeded what was labelled as "healthy" during the year prior to the survey. For another 52% of the teenage sample, elevated stress levels had strong negative effects on mental health, and the perceived impact of stress for youth was greater than that for adults (APA, 2014). Societal economic hardship is also linked to poor mental health (Frasquilho et al., 2016); given the rising income inequality in Canada (Banting & Myles, 2016), social determinants of health are another area of concern that may be theorized to increase stress levels.

Increases in toxic stress, which is defined as high levels of stress that outstrip coping abilities due to acute and prolonged exposure to adversity in the absence of nurturance (Shonkoff et al., 2012), is also postulated to be connected to the rising rates of mental health problems. When youth maltreatment leads to toxic stress in youth, permanent brain changes may affect emotional regulation, problem-solving, and risk-assessment abilities, and the likelihood of anxiety, substance abuse disorders, psychosis, and mood dysregulation later in life increases (Mental Health America, 2019). Such impacts of childhood trauma on mental health can create two important sequelae. First, there can be an increased risk for mental health concerns; second, when there is a failure to recognize the effects of trauma and toxic stress within school settings, students may be given diagnoses that don't accurately capture the true nature of their difficulties (e.g., ADHD, oppositional defiant disorder, and other mental health concerns; Black et al., 2012). In other words, mislabelling student trauma may also be inflating mental health rates.

Another key contributor to the rising mental health rates is the lack of funding related to early identification and treatment. Children's Mental Health Ontario (CMHO, 2019) reports that funding for child and youth mental health centres has decreased by nearly 50% in the last 25 years. Furthermore, funding for these youth centres is not needs-based but rather based on

historical allocations, creating severe geographical disparities (e.g., intensive programs are not within reasonable proximity to rural, remote, and northern areas) which serves to contribute to the lengthy wait times (CMHO, 2019). For instance, in the region of London, Ontario, the average wait time for youth seeking counselling and therapy services is 461 days, and the average wait time for intensive mental health treatment is 456 days (CMHO, 2019). In the region of Peel, the CMHO (2019) reports it takes children and adolescents more than a year and a half (566 days) to receive counselling services, and it takes two years (737 days) to receive intensive mental health treatment.

The research converges to demonstrate that unattended child and youth mental health concerns can lead to poorer socio-emotional adjustment, less academic success, diminished participation and engagement in school activities, and a higher propensity to drop out of school before graduating (Meldrum et al., 2009; Vaillancourt, 2013; Volk et al., 2006; Whitley et al., 2013). Making matters worse, suicide accounts for 24% of all deaths among adolescents and young adults aged 15–24 years of age (Ontario College of Teachers, 2018), making it the second leading cause of death among teenagers in Canada (Mental Health Commission of Canada, 2013). All in all, there is a compelling case to be made that our current infrastructure is failing our youth, and immediate intervention is required.

The Unique Roles Teachers have with Students

Given the severity of the youth mental health crisis, an attempt to mitigate the negative implications must be explored. One possible avenue in this domain is to investigate the role that teachers and the educational system play. Since teachers are able to form positive and nurturing relationships with their students while at the same time being aware of what constitutes typical and atypical functioning in a particular age group, they are in a unique position to be able to observe and notice youth behaviour. Such contact and knowledge create an invaluable opportunity to notice and positively influence the experience of all students, including youth with mental health concerns. Teachers are not only uniquely positioned to support their students, but they are often one of the first in line to witness, assist, and address youth mental health concerns (Rothi et al., 2008; Ontario College of Teachers, 2018; Brann et al., 2020). Research suggests that teachers play a vital role in facilitating and fostering student competencies that ensure optimal functioning (Reeve, 2006), independence (Lockhorst et al., 2010), and healthy coping (Graham et al., 2011). Teachers also have unique data to work with. For example, teachers can

view grades received over the course of the year as an additional source of information (Moor et al., 2000) and they also have the ability to confer with other colleagues to reflect and discuss any changes they notice with respect to student behaviour. As such, it is no surprise that teachers lead all other professionals in student referrals to mental health services (Rothi et al., 2008).

Teachers' Lack of Mental Health-Related Skills

Despite the overwhelming desire teachers have to attend to students' mental health needs (Reinke et al., 2020), teachers commonly report feeling ill-prepared to take on students with mental health concerns (Brann et al., 2020). This can be seen through the Canadian Teachers' Federation's (CTF) national survey of elementary and secondary school teachers ($n = 3927$) which found that 97% of surveyed teachers reported a desire for further professional development in the recognition and understanding of students' mental health concerns (Froese-Germain & Riel, 2012). Additionally, 87% of teachers report that their past education in this domain was inadequate (Froese-Germain & Riel, 2012). A study by Dwyer et al. (2006) supports the findings that teachers lack mental health education. In an investigation of teachers' ability to correctly identify internalizing (e.g., anxiety, social withdrawal, etc.) and externalizing (e.g., aggressive behaviour) symptoms of mental health in students ages 4–8 years ($n = 760$), the authors report that teachers scored poorly in their abilities to correctly detect these indicators. Specifically, teachers' accuracy when attempting to identify internalizing mental health issues ranged between 26–34%. And while teachers were found to be better able to identify students' externalizing mental health symptoms, their abilities were still less than chance (i.e., 49%) when comparing their predictions to the Family Risk Factor Checklist (Dwyer et al., 2006).

Teachers also lack a clear understanding of trauma and how such experiences can be associated with negative behaviours in the classroom. Rather than interpreting student avoidance, aggression, distrust, and dysregulation as markers of trauma (Siegfried & Blackshear, 2016), there is a tendency to instead misinterpret these behaviours as intentional misconduct that deserves harsh consequences and a discipline-oriented approach (Honsinger & Brown, 2019; Walkley & Cox, 2013). Learning about trauma and violence-informed care can thus provide an important perspective for teachers, providing a strong rationale for teacher education in this area. In this way, teachers learn to view classroom behaviours through an inclusive and equitable rather than confrontational lens.

It is important to note, the inability to effectively teach and attend to students with mental health concerns impacts more than just students. Attrition rates among new teachers are quickly increasing (National Commission on Teaching and America's Future, 2002) and researchers attribute this growth in large part due to the stress related to a lack of competencies in mental health (Weston et al., 2008). For instance, an investigation which looked at the major reported sources of stress that grade 1–12 teachers ($n = 771$) experienced found that the main source of teacher stress was a mismatch between competencies and a desire to help students with mental health concerns (Ekornes, 2016). An inverse relationship between teachers' inability to properly attend to classroom mental health and teacher well-being (Ekornes, 2016; Willis et al., 2019), as well as a positive relationship between teacher well-being and students' mental health well-being (Braun, 2019; Hastings & Bham, 2003; Roeser & Midgley, 1997) have also been reported.

Gaps in Teacher Mental Health Education

Teachers bear the sole responsibility for their lack of mental health competencies. The educational system's role in promoting mental health skills and education to work with students with mental health concerns has yet to become widespread (Andrews et al., 2014; Brown et al., 2019; Graham et al., 2011; Rodger et al., 2014), modernized (Gowers et al., 2004; Koller & Bertel, 2006) and consistent (Moore & Gammie, 2018). This is especially the case in preservice (or initial) teacher education (Graham et al., 2011). For example, one study which analyzed over 213 Bachelor of Education (BEd) programs across 66 post-secondary institutes in Canada found that only two of the programs sampled (i.e., <1%) had a mental health literacy course that was a mandatory component of their curriculum which explicitly mentioned mental health related constructs (e.g., well-being, stress, emotional support, or specific mental health concerns, such as anxiety, depression, etc.) in its course description or syllabus, offered strategies on implementation, and highlighted the importance of relationships towards supporting students with mental health concerns (Rodger et al., 2014). This lack of education is critical because it leaves behind opportunities for new teachers to develop these essential skills and knowledge, which can lead to their perceived self-inadequacies to teach and attend to student mental health issues. Another study in Ontario, Canada, which sampled 75 secondary school teachers found that only 26% of teachers felt prepared in their role to address students with mental health issues after graduating from their BEd program (Andrews et al., 2014). Additionally, 72% of teachers reported never having taken any mental health education courses following graduation, and only

8% of the sample revealed that taking a mental health literacy course was offered as an elective during their BEd (Andrews et al., 2014).

Critical issues

Defining Mental Health Literacy

Mental Health Literacy (MHL) has often been regarded as a vague concept lacking a congruent definition in the literature due to its multiple definitions and lack of consensus (Sørensen et al. 2012; Malloy-Weir et al. 2016). MHL initially evolved from the Health Literacy (HL) literature, in which HL was defined as one's ability to competently use information to maintain and promote good health (Nutbeam et al., 1993). Unsatisfied with the omission of mental health in the HL definition, Jorm et al. (1997) coined MHL, the first term which first sought to distinguish and establish mental health literacy as being separate from health literacy. In doing so, Jorm and colleagues (1997) defined MHL as the knowledge and positive attitude towards psychological disorders which allow for the recognizing, managing, and prevention of mental health-related concerns in oneself and in others. This view of MHL aimed to empower the collective approach to mental health in that it promoted the capacity for symptom management in the general public while diminishing the notion that health professionals are the sole individuals capable of treating mental health concerns (Jorm, 2018; Jorm et al., 1997).

Despite the positive change, however, this definition of MHL was limited by way of its heavily focused clinical characterization (i.e., it focused more on the recognition of mental health symptoms). Kutcher et al. (2013) were other major contributors to our understanding of MHL. Specifically, Kutcher et al. (2013) refined MHL by stating that it includes four key components: (1) having the capacity to optimize positive mental health, (2) having knowledge of evidence-based research pertaining to the treatment of mental disorders, (3) having a positive attitude which serves to destigmatize mental health, and (4) possessing help-seeking behaviours, i.e., knowing when and where to seek appropriate resources. While Kutcher et al.'s (2013) definition can be viewed as more holistic in scope than the initial definition provided by Jorm et al. (1997), MHL defined in this way still falls short by way of omitting important contextual factors insofar as the educational system is concerned.

Within the context of education, the role of the relationships between student and teacher is much more prominent. For example, the relationship that doctors and nurses have traditionally held between their patients is much more unilateral, distant, and infrequent (Kaba &

Sooriakumaran, 2007) and these types of health care providers typically have inconsistent interactions throughout any given year. In contrast, teachers and students possess a much more unique relationship in that it is more intimate, collaborative, and long-standing (Thousand et al., 2002). Additionally, teachers and students often interact on a day-to-day basis and this relationship also extends to the students' parents (Thousand et al., 2002), which results in many more opportunities to intervene. Therefore, the knowledge that MHL in education requires is much more nuanced than other types of health care professionals and must be emphasized. The interactions do not simply end at being able to recognize symptoms and different disorders, and then seeking help; instead, they allow for continuous contact and the ability to track ongoing movement in the mental well-being continuum.

Given teachers' time and exposure to students and the recent uptick in youth mental health, there exists a high likelihood that teachers will encounter at least one student with mental health concerns in their classroom (Chiu et al., 2020; Georgiades et al., 2019). The teaching profession can prepare teacher candidates by inculcating MHL as part of the standard educational program. In fact, this notion is even written in the Education Act across Canada (Scarfo, 2010): "In loco parentis", which translates to "in place of a parent" in Latin, states that the special bond that teacher and student hold requires careful attention and responsibility. As Scarfo (2010) puts it, "Duty of care requires teachers to assume the role of a kind, firm and judicious parent" (p. 14).

Thus, MHL not only allows teachers to capitalize on the opportunity to positively impact their students, but the case can also be made that knowledge, awareness, and intentionality in this domain is an integral core of the teaching profession. Weston and colleagues (2008) posit that in order to meet the cognitive, social, and emotional needs of students, the teaching profession must include practices that are geared to a child-centred family-driven approach that is culturally relevant and strengths-based, in order to meet the needs of students. In addition, Weston et al. (2008) suggest that a foundational component of teacher education must include knowledge and awareness in policy and laws that govern ethical and effective delivery of learning supports, in addition to the skills required to observe and enact said supports. Communication when demonstrating these competencies is deemed essential, as well as a willingness to collaborate with colleagues and systems that strive to maximize student academic success and healthy development (Weston et al., 2008). Given that the teaching profession has had pressing and

critical calls for reforms since the early 1800s (Fraser, 2006), calls to integrate an effective and holistic teacher mental health competency framework can be considered as the present-day concerns that need to be addressed in order to continue to move the profession forward and continue to respond to the needs of our communities and the youth within them.

Of particular interest here are studies investigating links between MHL and help-seeking efficacy (Carr et al., 2018). Descriptions of the impact of teacher education demonstrate that direct teaching can result in improved knowledge on most topics; for example, a single 2-hour professional development workshop administered to teachers and administration staff ($n = 126$) was able to translate to increased perceptions of confidence, abilities, attitudes, awareness, and efficacy at a 3-month follow up (Woods, 2014). As Dods (2016) puts it, “action is known to be mediated by self-efficacy, and it is possible that hands-on experience creates knowledge that is easier to translate and use in practice” (p. 56). Thus, it is with this in mind that the current study investigates the potential link between self-efficacy for mental health and MHL education.

Mental Health Literacy in Education

In the search for a more relevant definition of MHL as it pertains to education and the roles that teachers can play, the Canadian Alliance on Mental Illness and Mental Health (CAMIMH, 2007) definition of MHL provides a valuable addition for consideration. Namely, they posit MHL to also encompass awareness and advocacy in the individual and social determinants of health. Furthermore, education in this domain should translate to an active preventative approach that continuously seeks to question, transform, and refine one’s knowledge and practice (CAMIMH, 2007). While the term “literacy” is incredibly complex within the mental health context as it already stands, the case can be made that MHL needs to include additional components which are embedded in all levels of one’s ecological system. In other words, MHL does not merely translate to symptomology and diagnosis; rather, MHL also includes knowledge of the role that intersectionality (e.g., the socioeconomic, sociopolitical, and cross-cultural) plays when viewing mental health. As Masters (2019) pointed out, MHL is “the capacity to make informed choices and engage effectively in behaviours that promote mental health and wellness as determined by the context in which it is applied” (p. 35). Regarding how teachers may benefit from this knowledge, MHL translates to the ability to leverage teacher-student relationships in a way that allows for a better understanding of student struggles and

concerns, and a further ability to be confident and self-efficacious in knowing how and when to provide the appropriate resources.

Cross-Cultural Considerations

It is essential to consider the cross-cultural components embedded within the educational context when it comes to mental health and student experiences in and out of the classroom. That is, teachers need to be cognizant of culture and the intersectionality of identity as it relates to opportunity, absenteeism, punishment, expulsion and the role that the juvenile system plays with the school system (Downey & Pribesh, 2004; Holt & Gershenson, 2019; Lindsay & Hart, 2017; McCarthy & Hoge, 1987; Steinberg, & Lacoé, 2017). For example, concerning punishment, data from the 2011–2012 school year in the United States revealed that black children, though they represented only 16% of primary and secondary school students nationwide (i.e., ranging from kindergarten to grade 12), accounted for 43% of all multiple-suspension cases (Steinberg, & Lacoé, 2017). Additionally, research has demonstrated that students who shared the same race as their teacher received significantly less exclusionary discipline (e.g., isolating a child away from the class instead of suspending them), with black male students being the most impacted (Lindsay & Hart, 2017).

This disproportionate punishment for black students has been attributed to a bias in white teachers' appraisal of black student behaviour, in which behaviours were judged more harshly than deserved (Downey & Pribesh, 2004). This disproportionate punishment was also substantiated by Holt & Gershenson (2019), who found that at the primary school level, not only did a match between teacher and student skin colour have a negative relationship with the amounts of school suspensions, but this relationship also extended to decreased levels of non-attendance and decreased levels of late arrivals for these students. The relationship of harsh punishment also extends to the juvenile justice system, as similar activities of school delinquency has been observed to net black students with authorities on a greater likelihood when compared to white students (McCarthy & Hoge, 1987).

Other minority groups are also impacted by this phenomenon. For instance, Indigenous youth commonly experience barriers of individual and systemic racism which directly affects their scholastic success (Hare & Pidgeon, 2011). These barriers been identified as being linked with increased dropout rates, and racism directed at Indigenous students has been observed to result in negative student attitudes, self-esteem, and socio-emotional development (Hare &

Pidgeon, 2011). The same also extends to refugee and immigrant students, as research has shown that despite refugee and immigrant youth being at an increased risk of mental health concerns and suicidality due to possible traumatic pre-migration events, these youth are less than half as likely as non-immigrant children to be referred to mental health services (Colucci et al., 2011). Putting these cross-cultural considerations into perspective, it becomes evident that in order to holistically define MHL, it is necessary to also include a cross-cultural component.

The Present Study

The literature reviewed thus far has briefly showcased the troubling youth mental health rates, the lack of preparedness felt by teachers in helping students with mental health concerns, the lack of adequate teacher mental health education programs, and the stressors that stem from a lack of mental health competencies. Reflecting on the issues which stem from these set of circumstances, a poignant statement from Koller & Bertel (2006) is worth mentioning: “there is a call for a paradigm shift ... to better prepare all school-based personnel, including teachers, administrators, counselors ... to proactively confront the mental health challenges of today’s youth and the difficulties they face in serving those students” (p. 197). This study thus aims to answer this call by investigating whether preservice teachers’ mental health self-efficacy can be improved via a mental health literacy course. This study also tracks whether attitudes towards trauma-informed care, mental health knowledge, and the ability to build better relationships with students can be improved due to the mental health course.

Mental Health Literacy Course

The mental health literacy (MHL) course, offered as part of the mandatory curriculum at a large Canadian university’s Faculty of Education, aims to foster preservice teachers’ sense of school mental health awareness and knowledge about mental health. More specifically, the MHL course is a trauma, violence, and culturally informed course that was designed by experts in the field and is meant to instill confidence in preservice teachers when conceptualizing mental health (Atkins & Rodger, 2016). The course uses the Aligned and Integrated Model (AIM) from School Mental Health Ontario (SMHO), which provides operational definitions and strategies in each of the tiers in a three-tiered model of support (universal, preventative, and targeted; SMHO, 2021).

The course is delivered online and completely asynchronously in twelve weekly lessons to second year teacher candidates and includes topics such as understanding mental health and well-being, seeking help and finding support, and responding to mental health needs (Atkins &

Rodger, 2016). The course was designed by a team of teachers, graduate students and faculty in the fields of mental health and education.

Delivery of the course is centered around improving teachers' identification of signs and symptoms of mental health (flourishing and languishing, in the language of Keyes' Dual Continuum Model) in students, developing teacher knowledge in supporting mental health in classrooms, and learning strategies to both reduce student stress and accommodate students in situation-specific ways (Atkins & Rodger, 2016). However, it is important to add, the course places emphasis on increasing general knowledge and awareness toward mental health, rather than attempting to instill expertise (Atkins & Rodger, 2016). Research has demonstrated that the MHL course has shown to better preservice teachers' understanding of the impact of mental health, the impact that teachers may have, the sense of duty and urgency required with students with mental health concerns, and it has shown to translate expectations and learning to the realities of the classroom experiences (Atkins & Rodger, 2016; Rodger et al. 2020).

Aims

This program evaluation study evaluates whether an online mental health literacy course can influence preservice teachers' mental health self-efficacy. This study also investigates whether an online mental health literacy course can translate into better perceptions and attitudes toward trauma-informed care, and whether self-efficacy in dealing with trauma can be positively enhanced. Furthermore, another aim of this study is to improve teachers' role with students with mental health concerns, allowing for greater and faster response to these youth, better interactions between teacher and pupil, and an enhanced ability to create a mentally healthy classroom that destigmatize mental health concerns. Since past reviews have indicated mixed findings in mental health education that aims to teach mental health proficiencies (Anderson et al., 2019), another outcome of this study is to add to the discussion surrounding the ways teachers' mental health education can be integrated, allowing teachers to feel more prepared interacting and teaching students with mental health issues.

Research Question and Hypothesis. This study seeks to understand whether an online mental health literacy course positively influences mental health self-efficacy in preservice teachers and examines shifts in related concepts such as teacher well-being and trauma-informed care in the classroom. Accordingly, it is hypothesized post-test scores on the measures of interest will increase as a result of participating in the mental health course. That is, post-test scores on

the Student Mental Health Self Efficacy Teacher Survey (SMH-SETS), the Attitudes Towards Trauma-Informed Care (ARTIC) scores, the Teacher Well-Being Scale (TWBS), and the Mental Health Literacy Questionnaire (MHLQ) will all increase when compared to pre-test scores.

Implications for Practice. Since teachers hold a highly influential role in the development of their pupils (Cook & Kilmer, 2010), improvements in teachers' mental health self-efficacy will lead to the healthier development of students with mental health concerns. Teachers' mental health self-efficacy may also bolster the sense of well-being that teachers have (Ekornes, 2016), and there is good reason to believe that this would also equate to less distress in approaching delicate situations related to students' mental health. This competency may also lessen attrition and burnout rates among new teachers (National Commission on Teaching and America's Future, 2002). Ultimately, however, teachers' mental health self-efficacy could improve the interactions between students and teachers and could create an additional, much needed layer of support for young students with mental health concerns. Thus, the implications of the proposed study could shed light on how to deliver mental health curriculum to preservice teachers.

Chapter 2: Methods

This study investigates the perceptions and attitudes of students enrolled in a mandatory course as part of a Bachelor of Education program at a large Ontario university through a pre-test post-test design. Participants ($n = 240$) were preservice teachers enrolled in the course 5018Q: Supporting Social-Emotional Development. As part of the 5018Q curriculum, students enrolled in this course were required to complete two mandatory questionnaires (October 2020 and February 2021, i.e., before the course began and after it ended). These questionnaires were evaluated as a participation mark toward the course final grade and completion was worth 5% of the overall course grade each (for a total of 10%). The research team requested permission to use teacher candidates' scores in research and this study received ethical approval from the Research Ethics Board (please see Appendix A).

Measures

Participants were asked to complete basic demographic questions (Appendix B) and all measures listed in this section. All data collection occurred via the online survey tool Qualtrics. The survey began with basic demographic questions (i.e., age, sex, and ethnic background), followed by asking participants to list whether they have knowledge in any extracurricular teaching domains (e.g., youth indigenous first aid training certificate).

Missing Data

In developing the aggregate scores (which were then converted to mean item scores), careful attention was given to the number of missing items for any participant. If a teacher candidate missed more than 20% of the items on any scale or subscale, an aggregate score was not computed, and their data was not included in the analyses.

Teacher Mental Health Self Efficacy Measure

The Student Mental Health Self Efficacy Teacher Survey (SMH-SETS) is a standardized tool that operationalizes mental health-self-efficacy as the belief in one's own professional competency in the following domains: addressing student mental health needs; instructing and responding to students with mental health concerns; recognizing symptoms of mental health; and the ability to foster an encouraging and optimistic environment toward mental health in the classroom (Brann et al., 2020). The SMH-SETS includes a total of 15 questions, each starting with the sentence "I feel confident in my ability to..." in a given mental health area (see Appendix C). Sample questions include "I feel confident in my ability to meet the emotional or

mental health and safety needs of my students when teaching", "I feel confident in my ability to refer students to mental health providers", and "I feel confident in my ability to promote positive social-emotional skills in the classroom" (Brann et al., 2020).

Each item is ranked on a 6-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree; Brann et al., 2020). The minimum summed score for the SMH-SETS is 15 and the maximum is 90; higher scores represent higher perceived confidence in classroom mental health self-efficacy, and vice versa. The internal consistency for the SMH-SETS was found to be strong ($\alpha = .91$; Brann et al., 2020). A mean item score (MIS) was calculated.

Attitudes Related to Trauma-Informed Care Scale

In order to gauge participants' attitudes concerning adapting a classroom trauma-informed approach, this study uses Baker et al.'s (2016) Attitudes Related to Trauma-Informed Care Scale (ARTIC; Appendix D). The ARTIC is an instrument which has six versions that each evaluate perceptions of trauma-informed care within different settings. Since this study concerns preservice teachers, the ARTIC-35-Education version used. The ARTIC-35-Education (which will be referred to as "ARTIC" in this text) is a 35-item instrument that is meant to gauge attitudes of trauma-informed care within the educational setting. The instrument uses a seven-point Likert scale with five subscales. It boasts high overall internal consistency ($\alpha = .91$), as well as high internal consistency within each of its subscales. The five subscales, a brief definition, and their Cronbach's α values are: 1) Underlying Causes of Behaviour and Symptoms ($\alpha = .78$), which investigates how educators interpret their students' challenging behaviours; 2) Responses to Problem Behaviour and Symptoms ($\alpha = .76$), which evaluates where educators stand in terms of flexibility and accommodation as compared to enforcing rules and consequences; 3) On-the-Job Behaviour ($\alpha = .72$), which is devoted to understanding participants' job perceptions as it relates to the capacity for empathy vs. the desire for classroom control; 4) Self-Efficacy at Work ($\alpha = .79$), which looks at attitudes towards preparedness, or lack thereof, toward job demands; and, 5) Reactions to Work ($\alpha = .71$), seeks to unearth participants' views and reactions concerning vicarious trauma. Overall ARTIC scores are tallied by averaging each of the five subscales scores, therefore, the minimum score is 35, and the maximum score is 245. A low score reflects negative views towards trauma-informed care, whereas a high score reflects more positive outlook in this domain. Mean item scores were calculated for each of the five subscales, as well as the total.

Mental Health Literacy Questionnaire

The MHLQ (Appendix E) is a measure that assesses beliefs, skillset, and knowledge as it relates to mental health literacy promotion and proficiency (Hatcher, 2018; Pandori-Chuckal, 2020; Masters, 2019). The 42-item questionnaire uses a five-point Likert scale and is structured through four subscales that measure knowledge, perspectives, skills, and leadership. Higher ratings represent higher endorsement of the item in question. The four subscales, a brief definition, and their Cronbach's α values are: 1) Teaching and Leading a Mentally Healthy Classroom (23 items; $\alpha = .94$), which assess the capacity for teachers to promote a mentally healthy school climate; 2) Expectancies (6 items; $\alpha = .96$), captures personal expectations pertaining to the roles that teachers play in supporting students' social and emotional concerns; 3) Professional Relational Skills (9 items; $\alpha = .88$), is a collection of items which evaluates the ability to build relationships with members of the school, community, and in managing conflict; and 4) Role Clarity, (4 items; $\alpha = .92$) a subscale that assesses teachers' perspective on their job as it relates to promoting students' mental health well-being. Mean item scores were calculated for each of the four subscales, as well as the total.

Teacher Well-Being Scale

To assess our sample's well-being, this study uses Collie and colleagues' (2015) TWBS. (Appendix F). The TWBS, inspired by Ryan and Deci's (2011) definition of general well-being, is a 16-item instrument that asks participants to rate three factors of educator well-being through the question "Currently, how do the following aspects of being a teacher affect your well-being as a teacher?" (Collie et al., 2015, p. 753). These factors include role requirements (e.g., administrative work), relationships and policies within the organization (e.g., interactions with staff members), and interactions with students (Bird, 2020). The scale uses a 7-point Likert scale, with higher scores indicating higher levels of well-being, resulting in a possible minimum score of 16 and a maximum score of 112. Three subscales are used for the TWBS: the Workload Well-Being subscale ($\alpha = .85$; Collie et al., 2015) asks respondents to rate well-being related to workload (e.g., "Administrative work related to teaching"); the Organizational Well-Being subscale ($\alpha = .84$; Collie et al., 2015) evaluates well-being related to workplace culture and administration perspectives (e.g., "School rules and procedures that are in place"); and lastly, the Student Interaction Well-Being subscale ($\alpha = .82$; Collie et al., 2015) asks subjects to rate the impact that educator's have with their students (e.g., "Relations with students in my class"). In

order to derive a total score, each of the items are summed and then divided by 16 (i.e., the total number of questions) to obtain a mean item score, which were calculated for each of the three subscales.

Analyses

The analyses for this study were conducted in 3 steps: descriptive statistics, measures of association, and a repeated measures MANOVA. Each of these inquiries provided important information about the study's sample and the variables of interest.

Procedure

Students enrolled in 5018Q received an email in September 2020 informing them of the mandatory components of their course curriculum. Included were the details regarding the pre- and post-tests: these were not graded but were counted as 'participation' marks; provided that students responded to 95% of all questions on each test, they earned 5% credit for their course grade. This was supplemented by a letter of information and informed consent asking for their permission to use the data from the pre- and post-tests for research purposes. The vast majority ($n = 240$) agreed, constituting a 98% agreement rate. Data collection began on September 11th, 2020, as participants received an invitation link to take the pre-test questionnaire via Qualtrics. It is important to note, participants completed this assessment a week before their course started to ensure that the data would be uncontaminated by the material presented in the course. The MHL course was delivered weekly for 12 total weeks, spanning from September 2020 to February 2021. Following completion of the final session, a post-test assessment was delivered, again through Qualtrics.

Ethical considerations

The study was approved by the University Research Ethics Board. Informed consent was obtained from all participating students. Participants were explicitly told that they are not required to participate in this study. In order to preserve participant confidentiality, researchers analyzing the data did so after final grades were submitted and all identifying data (e.g., email addresses) were removed.

Chapter 3: Results

Basic Demographics

Demographic characteristics of the sample are shown on Table 1. A total of 243 preservice teachers were sampled, 49 of whom were male, 192 were female, and two preferred not to answer. From the total sample, 37% were in the primary teaching division ($n = 91$), 11% were in the junior teaching division ($n = 26$), 10% were in the intermediate teaching division ($n = 24$), and 42% were in the senior teaching division ($n = 102$). Students can specialize in one of 6 specialty fields, and the mental health literacy course was mandatory for all students except those who were enrolled in the Applied Psychology specialized program. Of the students enrolled in the course, visual inspection shows that the specialization was approximately equally distributed across the remaining five fields, with the least number of participants stemming from the field of early childhood education (17%, $n = 40$), and the most coming from urban education (23%, $n = 53$). Out of nine possible choices regarding undergraduate major, most students had graduated from arts and humanities ($n = 76$, 31%), the sciences ($n = 38$, 16%), and social sciences ($n = 35$, 14%), with 51 students (21%) marked "other" as their previous degree program. Ninety percent of the sample ($n = 219$) had an undergraduate degree prior to entering their studies as preservice teachers, and 78% of the sample ($n = 190$) reported they had taken prior mental health education. From those who reported previous mental health learning, most participants indicated this prior source of learning was from either an undergraduate course (44%, $n = 106$) or a training program (24%, $n = 57$; e.g., Applied Suicide Intervention Skills Training, Mental Health First Aid)

Table 1*Sample Demographics (n=243)*

Measure		N	%
Gender	Male	49	20.2
	Female	192	79
	Prefer not to answer	2	0.8
Bachelor of Education Program	Primary	91	37.4
	Junior	26	10.7
	Intermediate	24	9.8
	Senior	102	42
Cohort	International Education	40	17
	Early Childhood Education	38	16.2
	Urban Education	53	22.6
	French	51	21.7
	STEM	53	22.6
	Missing	8	3.3
Previous Degree	Science	38	15.6
	Psychology	10	4.1
	Child and Family Studies	8	3.3
	Health Sciences	19	7.8
	Social Sciences	35	14.4
	Arts and Humanities	76	31.3
	Social Work	2	0.8
	Religion/Divinity	4	1.6
Degree Obtained	Other	51	21
	Undergraduate	219	90.1
	Masters	20	8.2
	PhD	1	0.4
	Missing	1	0.4
Previous Mental Health Learning	Yes	190	78.2
	No	53	21.8
If yes, from where?	Training program	57	23.5
	Undergraduate course	106	43.6
	Post graduate course	4	1.6
	Other	22	9.1
	Missing	54	22.2

Descriptive Statistics

The means, standard deviation, and ranges for each variable of the four instruments used, and all their subscales, are reported in Table 2. The overall score of a scale is also reported where appropriate. To account for missing data, participants who failed to complete at least 80% of items on a scale or subscale were omitted. Cronbach's alpha for the complete instruments of interest are as follows: MHLQ, $\alpha = .60$; ARTIC, $\alpha = .81$; TWBS, $\alpha = .92$; and SMH-SETS, $\alpha = .92$.

Table 2

Descriptive Statistics

Scale	Subscale	Time 1					Time 2				
		n	Min	Max	\bar{X}	SD	n	Min	Max	\bar{X}	SD
MHLQ	Teaching in a MHC	242	1.81	5.00	3.64	0.56	242	2.73	5.00	4.15	0.44
	Expectancies	241	2.17	5.00	4.47	0.64	242	2.17	5.00	4.54	0.59
	Prof. Relationships	241	2.67	5.00	4.14	0.54	242	2.89	5.00	4.36	0.46
	Role Clarity	241	3.00	5.00	4.86	0.36	240	3.00	5.00	4.89	0.30
	(Total)	242	3.00	5.00	4.28	0.36	240	3.00	5.00	4.49	0.33
ARTIC	Underlying Causes	240	3.43	6.86	5.45	0.64	242	3.86	7.00	5.71	0.71
	Responses to Problem	240	2.71	7.00	5.52	0.71	242	3.57	7.00	5.74	0.83
	On-the-Job Behaviour	240	3.43	7.00	5.46	0.68	242	3.71	7.00	5.61	0.78
	Self-Efficacy at Work	240	3.43	6.29	5.39	0.54	242	3.43	6.43	5.39	0.61
	Reactions to Work	240	2.57	6.71	5.43	0.70	242	3.57	6.71	5.61	0.77
	(Total)	240	3.43	6.57	5.45	0.49	242	3.94	6.77	5.61	0.61
TWBS	Workload	241	3.50	7.00	5.12	0.79	242	3.33	7.00	5.17	0.78
	Organization	241	3.17	6.83	5.16	0.80	242	2.50	7.00	5.19	0.79
	Student Interaction	241	3.75	7.00	5.37	0.71	242	3.50	7.00	5.23	0.70
SMH-SETS		243	1.86	6.00	4.05	0.68	242	3.00	6.00	4.59	0.56

Relationships Between Measures

Pearson correlations were calculated in order to investigate the relationship between the various scale and/or subscale scores of interests at Time 1 and Time 2 scores. As expected, significant correlations were detected between all of the instruments and/or subscales at both Time 1 and Time 2. These correlations were all significant at the $p < .001$ level. For example, a correlation of $.42$ ($p < .01$) was found between the MHLQ and the ARTIC total score (ARTIC-Total) at time 1, and a correlation of $.60$ ($p < .01$) was found between these measures for time 2. All the correlations are presented in Tables 3 and 4.

Table 3*Time 1 Pearson Correlation Matrix Between Instruments and Subscales of Interest*

		MHLQ	ARTIC-TOTAL	ARTIC-SE	TWBS	SMH-SETS
MHLQ	<i>r</i>	1	.42**	.48**	.29**	.61**
	<i>N</i>	242	240	240	241	242
ARTIC-TOTAL	<i>r</i>	.42**	1	.55**	.30**	.25**
	<i>N</i>	240	240	240	239	240
ARTIC-SE	<i>r</i>	.48**	.55**	1	.45**	.35**
	<i>N</i>	240	240	240	239	240
TWBS	<i>r</i>	.29**	.30**	.45**	1	.28**
	<i>N</i>	241	239	239	242	241
SMH-SETS	<i>r</i>	.61**	.25**	.35**	.28**	1
	<i>N</i>	242	240	240	241	243

** . Correlation is significant at the .001 level (2-tailed)

Table 4*Time 2 Pearson Correlation Matrix Between Instruments and Subscales of Interest*

		MHLQ	ARTIC-TOTAL	ARTIC-SE	TWBS	SMH-SETS
MHLQ	<i>r</i>	1	.60**	.56**	.38**	.54**
	<i>N</i>	240	240	240	240	240
ARTIC-TOTAL	<i>r</i>	.60**	1	.66**	.34**	.32**
	<i>N</i>	240	242	242	242	242
ARTIC-SE	<i>r</i>	.56**	.66**	1	.44**	.31**
	<i>N</i>	240	242	242	242	242
TWBS	<i>r</i>	.38**	.34**	.44**	1	.30**
	<i>N</i>	240	242	242	242	242
SMH-SETS	<i>r</i>	.54**	.32**	.31**	.30**	1
	<i>N</i>	240	242	242	242	242

** . Correlation is significant at the .001 level (2-tailed)

MANOVA

A one-way repeated measures MANOVA was conducted to explore the mental health literacy course's influence on the set of measures of interest, as follows: 1. The Teaching and Leading a Mentally Healthy Classroom subscale of the MHLQ, 2. The Self-Efficacy subscale of the ARTIC, 3. The total score of the ARTIC, 4. The Student Interaction Well-Being subscale of the TWBS, and 5. The School Mental Health Self Efficacy Teacher Survey. The omnibus test was significant, $F(5,233) = 59.97, p < .001$. The Teaching and Leading a Mentally Healthy

Classroom subscale of the MHLQ (MHLQ-TLMHC) was chosen because it is comprehensive, and previous research has indicated that this subscale accounts for the majority of the variance for the MHLQ (Bird, 2020; Hatcher, 2018; Masters, 2019; Pandori-Chuckal, 2020). Concerning the ARTIC; the ARTIC-TOTAL and the ARTIC Self-Efficacy subscale (ARTIC-SE) were chosen as variables of interest due to the connection between trauma and mental health and the relevance to the study's objective. The Student Interaction Well-Being subscale of the TWBS (TWBS-SIWB) was chosen due to the established connections between students and teachers for student mental well-being, while the subscales regarding workload and organization were not as relevant to working with students (Bird, 2020). Additionally, since the mental health literacy course under evaluation places a high degree of importance on relationship building, this study tracks the TWBS-SIWB as an indicator of the effectiveness of the course. The School Mental Health Self Efficacy Teacher Survey (SMH-SETS) is a recently published measure that has both the specificity (in terms of measuring teacher self-efficacy for teaching students with mental health problems) and strong psychometric properties to evaluate this important dimension (Brann et al., 2020).

Univariate results indicate a significant effect of the mental health literacy course on scores of the MHLQ-TLMHC, $F(1,237) = 195.48, p < .001$, TWBS-SIWB, $F(1,237) = 10.31, p < .01$, ARTIC-TOTAL, $F(1,237) = 35.01, p < .001$, and the SMH-SETS, $F(1,237) = 167.46, p < .001$. A nonsignificant effect was detected for the ARTIC-SE, $F(1,237) = .01, p < .05$. Further results are shown in Table 5.

Table 1

MANOVA Results

Analysis	Effect	<i>df</i>	<i>F</i>	<i>p</i>	eta-squared
Multivariate	Overall	5, 233	59.97	<.001**	.563
	SMH-SETS	1, 237	167.46	<.001**	.414
	ARTIC-TOTAL	1, 237	35.05	<.001**	.129
Univariate	ARTIC-SE	1, 237	0.01	.924	<.000
	MHLQ-TLMHC	1, 237	195.48	<.001**	.452
	TWBS-SIWB	1, 237	10.31	<.01*	.042

* $p < .05$, ** $p < .001$

Chapter 5: Discussion

In order to leverage the time spent and relationships developed between educators and students, teachers need to feel prepared to interact with students who may need support for mental health concerns or illness; however, national surveys conducted in the past decade indicate that 97% of teachers feel underprepared to do so and are asking for further development opportunities in recognizing and understanding students' mental health concerns (Froese-Germain & Riel, 2012). It is important to consider, though, that teachers' knowledge in this area may not be sufficient to influence student mental health. Ultimately, regardless of the breadth, scope and quality of a course about mental health, knowledge is not the only predictor of behavioural or attitudinal change. Instead, knowledge may be most effective when it is accompanied by positive self-belief in teachers' capacity to help students with mental health concerns.

With this in mind it is argued there that teacher self-efficacy for student mental health can be the bridge between possessing knowledge and having a positive impact on the development of students who have mental health concerns (Cook & Kilmer, 2016). Not only would this help students with mental health concerns, but research has also demonstrated such competency development to be beneficial for the well-being of teachers themselves (Ekornes, 2016). Thus, this study investigated the impact that a mental health literacy course could have on preservice teachers' mental health self-efficacy, and the results are promising.

Participation Characteristics

From the 243 participants of this study, 79% were female, 20% were male, and 1% preferred not to answer. This distribution is close to the actual distribution found in the profession, i.e., in Ontario, data from 2017-2018 revealed that 76% of public-school teachers were female and 24% were male (Cole, 2021). Among the teacher candidates, considerable variability with respect to specialization, previous degree earned, stream of Bachelor of Education program in which they were enrolled was found. While 22% of participants indicated they had previous mental health learning prior to enrolling in the MHL course, such learning experiences are considered to be very different from a mental health literacy course. For example, workshops (e.g., Mental Health First AID) in mental health are usually short, very targeted, and specific. In contrast, the MHL course is structured over a 12-week time period, allowing preservice teachers to discuss mental health at school and collaborate and obtain

feedback from peers through discussion forums. Furthermore, national surveys conducted by the CTF have shown that 72% of teachers have reported to have never taken any mental health education courses prior to teaching, so the current sample aligns with this previous research with in-service teachers.

Measures of Association

One of the aims of this study was to investigate the associations between school mental health self-efficacy for teachers, attitudes toward trauma-informed care, teacher well-being, and mental health literacy. As hypothesized, results indicated significant associations between measures. As predicted, Pearson correlational analyses yielded results showing significant associations between all measures at both Time 1 and Time 2. This is not surprising, as all measures were asking questions about concepts shown to be related in previous literature such as mental health, work experiences, self-efficacy, mental health and relationship skills. There were some changes in the strength of the associations from Time 1 to Time 2, but as this was a program evaluation designed in a quasi-experimental framework, it cannot be concluded that any changes detected in the correlational analyses were due to the course. What can be interpreted, importantly, is that there is some connection between the dimensions of interest in that teacher self-efficacy is associated with mental health literacy, teacher well-being, and attitudes toward trauma-informed care. The next analyses were carried out to carefully examine these associations.

Multivariate and Univariate Results

The results of the multivariate repeated measures analyses demonstrated significant differences between Time 1 and Time 2 on the set of the measures of interest, namely the SMH-SETS, Factor 1 of the MHLQ, the total ARTIC scale and all subscales except for the SE scale, and all subscales of the TWBS. This is interpreted as evidence of efficacy in the course curriculum and successful achievement of relevant learning objectives. However, such changes are not solely attributable to the course given the research design.

Univariate tests provided further detailed analyses and revealed that while a significant difference based on time was detected for self-efficacy per the SMH-SETS, no significant effect was detected for self-efficacy per the ARTIC-SE subscale. Similar to what was stated before, this may be due to the differences between self-efficacy related to mental health and self-efficacy related to perspectives related to trauma-informed care. The SMH-SETS was created to assess

teacher mental health self-efficacy within the educational context so that schools could identify training and coaching support needs (Brann et al., 2020). On the other hand, the ARTIC (and the ARTIC-SE subscale) was originally created to assess the attitudes of service providers (not just teachers) in addressing the consequences of traumatic stress in the clients they serve (Baker et al., 2016). This difference in results may suggest that teacher self-efficacy about trauma is different from teacher self-efficacy for school mental health.

Interestingly, the total score of the ARTIC (ARTIC-TOTAL) increased significantly between pretest and post-test. This suggests from Time 1 to Time 2, the mental health literacy course may have influenced the way participants completed the other subscales of the ARTIC. In other words, the mental health literacy course may have had a role in changing preservice teachers' attitudes related to the underlying causes of behaviours, their on the job behaviour, and their own reactions to working with students who have experienced trauma. However, given the nonsignificant results of the ARTIC-SE, this did not extent to an increase but not in their self-efficacy in trauma. Thus, it is possible that simple knowledge in trauma-informed care is not enough to warrant a change in belief, or self-efficacy, in one's ability to address it. There may also be some overlap in the ways mental health literacy and attitudes towards trauma-informed care was taught. For example, universal trauma precautions, which is defined as the effort to reduce harm and provide emotional, physical and cultural support for all (Raja et al., 2015) closely related to the first tier of the intervention system that the mental health literacy course is informed by (i.e., the first tier is the universal approach).

Concerning the relationship component of the work of a teacher, the Student Interaction Well-Being (SIWB) subscale of the TWBS, the relationship observed was significant, indicating that as preservice teachers engaged in the mental health literacy course, their teachers' sense of well-being which is derived from their perception of their interactions with students (e.g., student motivation, student behaviour, student academic achievement, etc.) increased as well. This observation is interesting to note for two reasons. First, this subscale was partly chosen as a variable of interest due to its positive association with the ARTIC-SE subscale (Bird, 2020). Given that scores on the TWBS-SIWB subscale increased, while scores of the ARTIC-SE subscale did not, this may suggest that preservice teachers were exposed to lower rates of toxic stress in the classroom, and greater rates of mental health concerns. In this case, it may be that increased knowledge in mental health literacy led to better classroom management related to

mental health, which accounted for the increases in positive perceptions of student behaviour. It may also be that since a relationship between classroom mental health and academic achievement has been observed in the literature (Meldrum et al., 2009; Vaillancourt, 2013; Volk et al., 2006; Whitley et al., 2013), the positive increase in SIWB scores may be due to an increased confidence in ability to foster an environment conducive to positive relationships in the classroom success which would in turn lead to higher levels of SIWB and better academic engagement as measured by achievement.

An increase in classroom success would also explain the gains in the Teaching and Leading a Mentally Healthy Classroom (TLMHC) subscale of the MHLQ. For example, TLMHC subscale indicates the level of confidence that participants have toward displaying mentally healthy behaviours. This includes having a good understanding of mental health concerns and the various supports and strategies that exist in addressing mental health within the classroom setting. This sort of understanding has been shown the potential to decrease negative attitudes and stigma toward mental health for teachers (Mcluckie et al., 2014), supporting the idea that preservice teachers may have felt they increased their ability to create healthy classroom environments as a result of the mental health literacy course, subsequently bettering preservice teachers' belief in their capacity to lead a mentally healthy classroom (TWBS-TLMHC). Positive increases in the MHLQ-SIWB may also be due to the way the mental health literacy course was designed. Specifically, the course itself promotes the notion that in order to support student well-being, instructors must support their own well-being as well. Thus, it may be the case that preservice teachers learned how to increase their well-being as a result of the course itself.

It also stands to reason that as the mental health literacy course increased pedagogical knowledge, teachers' sense of competence increased as well, raising well-being levels. As Lauermaann & König (2016) have stated, teachers' professional competence is a critical component and predictor of educator well-being and success. Professional competence, they define is defined as knowledge, skills, beliefs, and motivation, and is also linked to teaching specific self-efficacy and had an inverse relationship with burnout (Lauermaann & König, 2016).

Self-Determination Theory

The results produced by the mental health literacy course seem to compliment each other, as several of the construct observed had positive associations with each other, and classes were

afforded with more opportunities for student freedom. This is interpreted as the idea that the dimensions of autonomy, competence, and relatedness are embedded throughout the different instruments used. For example, autonomy is well represented in the TWBS organizational factor, competence is embedded within both the ARTIC self-efficacy and TWBS workload subscale, and relatedness is one of the subscales (reactions to work) used to obtain the ARTIC total score. Concerning the MHLQ, the development of this scale was based on formulating questions surrounding a sense of competence in nurturing mental health well-being and how to identify mental health concerns of students, and a sense of relatedness in asking questions related to communication and conflict resolution was also incorporated (Hatcher, 2018). Overall, given the positive effects of self-efficacy that were detected in the current study, it can be argued that there is some support for SDT as a relevant theory for explaining motivation for teacher candidates. These results also substantiate other research that has reported that those teachers who score in the lower ranges on these dimensions are more likely to experience negative outcomes; for example, in the absence of relatedness, competence and autonomy, teachers are more likely prone to burnout and have job dissatisfaction (Power & Goodnough, 2019).

Implications for Teacher Education

The literature is consistent in its findings that teachers are not ready to promote classroom mental health or in being equipped to identify and support students in this capacity (Gowers et al., 2004; Levine Brown et al., 2017; Ohrt et al., 2022; Rodger et al., 2014; Rothi et al., 2008). Teachers are also honest about this gap in their knowledge, and they are neither content with nor passive about this lack of proficiency (Gowers et al., 2004; Froese-Germain & Riel, 2012; Rodger et al., 2014; Weston et al., 2008). As previously mentioned, the CTF's national survey on teachers found that 97% of respondents indicated a desire for professional development opportunities that relate to mental health (Froese-Germain & Riel, 2012). When teachers were asked what their opinions are related to the barriers impeding student mental health service provision, according to the CTF's national survey, teachers' top four responses were: 1. Insufficient school-based mental health professionals; 2. Lack of adequate training in addressing student mental health; 3. Lack of funding, and 4. A lack of community-based mental health professionals (Froese-Germain & Riel, 2012).

As it turns out, teachers are acutely in tune with the inadequacy of the student and youth mental health support systems. Their evaluations on barriers to student mental health provision

are all accurate: there exist severe support staff shortages (e.g., school psychologists) in schools (Saklofske et al., 2007), a lack of national mental health literacy curriculum in BEd programs (Rodger et al., 2014), exorbitant increases in mental health rates in the past couple of decades (Chiu et al., 2020), and funding for support for child and youth mental health centres has decreased by half of its original allocated amount over the past quarter-century (CMHO, 2019). Despite the failure related to mental health service provision in supporting youth mental health, the values of the teaching profession require that, on top of regular job expectations (e.g., planning, carrying out a lesson plan, grading, supervising, etc.), teachers are required to notice and act accordingly when mental health manifests itself in the classroom (Wang et al., 2015; Gray et al., 2017). Inevitably, however, teachers realize they lack competencies in mental health, that the supporting structure is lacking, and that mental health rates have drastically worsened. This causes teachers to become dissatisfied, burnt out, and even leave the profession as a result (Betoret, 2006; Brann et al., 2020; Brouwers & Tomic, 1999; Ekornes, 2016).

In order to negate the negative spiral related to burnout, the teacher education experience needs to be revamped. Fortunately, the results of this study indicate improving self-efficacy through mental health literacy is possible, and increasing self-efficacy has positive outcomes related to trauma-informed care, interactions with students, and the ability to build a mentally healthy classroom environment. This program evaluation suggests that incorporating a 12-week mental health literacy course influenced preservice teachers' confidence and ability in interacting with student with mental health concerns and provides encouragement that there is a lot of optimism to be had surrounding the idea of an entire program which emphasizes these competencies. Given the implications of such results for the well-being of both teachers and students, the need to incorporate mental health literacy in all teacher candidates becomes even more compelling.

These results point to the possibilities and promise of shifting the behavioural and attitudinal components of teacher self-efficacy for school mental health, allowing or enhancing positive interactions between teacher and student. This is important, based on the limited time that teachers have with their students each day, and the potential for that time to be impactful. For example, in Ontario—excluding recess and breaks between classes—the minimum instructional time for primary school students is 5 hours a day over 188 instructional days in a given year (Statistics Canada, 2011). This translates to 940 hours of interaction between teacher

and student per year, providing many opportunities for these instructors to help students learn, thrive and build well-being from an early age. Universal and targeted school mental health programming and resources (Tiers 1 and 2) have been implemented in many schools and school districts and show some promise in the prevention of mental health concerns and promotion of good mental health in children and youth, although high quality research is lacking (Salerno, 2016). Even so, evidence converges on the positive effects of teachers on student well-being (see, for example, Phillippo & Kelly, 2013). This is an important avenue for possible strengthening of student well-being because as reported by Georgiades et al. (2019), more than 66% of youth struggling with a mental illness go without treatment from a mental health professional.

In order to meet the needs of the community and the professionals who work within them, professional education must stay current, relevant and responsive. Rather than viewing the Bachelor of Education experience as a collection of separate courses that teaches candidates in distinct and discrete ways, the programs need to be focused on ways to prepare preservice teachers to transition into the professional practice of teaching within communities. Fortunately, the results of this study indicate improving self-efficacy through mental health literacy is possible, and research reviewed previously converges to suggest that increasing self-efficacy has positive outcomes related to trauma-informed care, well-being and student engagement. This notion is also substantiated by the literature, as self-efficacy has been linked to teacher confidence, job commitment and satisfaction, well-being, and sense of accomplishment (Bird et al., 2020; McCallum et al., 2017; Zee et al., 2016).

If the educational system can equip teachers with the tools to notice and to point students and families to resources within their grasps, such as school counsellors and psychologists providing intermediary relief, these efforts would have many positive implications. For example, this may translate to increased academic support for students with mental health concerns, as this demographic has been deemed to be at an academic disadvantage when compared to their peers (Allen et al., 2017). This would also have the added benefit of providing relief support and a shared sense of allyship to the parents of these students as well. In Ontario, 1 in 4 parents reportedly miss work to care of their children due to bouts of anxiety, 1 in 3 parents are actively seeking supports for mental health concerns for their son or daughter, and of those who sought services, 4 in 10 were not successful in finding proper support or were put on a waitlist (CMHO,

2019). Thus, teacher education in this domain could translate to alleviating some of the stresses that student with mental health concerns have, substantiating the perception that teachers can act as crucial student mental health “front-line workers” (Rothi et al., 2008).

The need to incorporate education in trauma-informed care is also an imperative. However, as this study has shown, it seems that mental health literacy and knowledge about trauma may be two separate distinct constructs. Given the high degree of mental health problems among those who have experienced trauma (Sweeney et al., 2018), this finding is somewhat surprising; however, upon reflection it may mean that people are more attuned to mental health concerns compared to the sequelae of trauma. This is important to note for educational policy makers who wish to create professional development opportunities for teachers, i.e., knowledge and self-efficacy in mental health does not translate to knowledge and self-efficacy in terms of supporting students who have experienced trauma (and vice versa).

While this study did not centrally locate itself with how trauma-informed care could be fostered within a preservice curriculum, research has suggested that this is both possible and effective (Bird, 2020; Jaycox, 2003; Sugai & Horner, 2006; Michael et al., 2014; Yeo, 2021), and using a trauma-informed, evidence-based framework leads to wide-ranging benefits. For example, Michael and colleagues (2014) observed psychoeducation through a trauma-informed lens has resulted in teachers being able to build better rapport, enhance relatability, and improved teachers’ ability to notice and attend to student needs. A trauma-informed perspective may also benefit behavioural management of students; for example, teachers who strived to eliminate loud and sudden noises during class (due to it being potentially triggering) have found that this also aided overall student behavioural improvement in the classroom (Sugai & Horner, 2006; Michael et al., 2014). Moreover, teachers with trauma-informed knowledge have been observed to have better student-teacher dynamics by way of enhanced communication and connectedness, and reduced rigidity (Jaycox, 2003), and it has also led to teachers feeling and responding in a better-prepared and more competent way in the event of crises (Michael et al., 2014). Finally, major components of a trauma-informed perspective in the classroom emphasize predictability, clear expectations, and a consistent routine as a basis for student-teacher interactions—all of which have shown the ability to foster a calm and supportive atmosphere for students (Michael et al., 2014). Thus, the incorporation of mental health literacy and a trauma-informed framework are both suggested as essential to high-quality teacher education.

Implications for Mental Health Professionals Working in Schools

Within the education system, a key contributor to supporting student mental health stem from the support staff who surround teachers. Unfortunately, however, a severe shortage of such support staff exists in this domain. For example, children with special needs would typically need help from an educational assistant to engage equitably in school activities. Yet, some school boards have had staffing shortages at “crisis levels” (CBC, 2021), leaving students largely unsupported. Educational assistants provide support for children with identified special needs in the classroom. There is no such support for those students with (unidentified or undocumented) maltreatment, trauma or mental health problems, or misidentified behavioural problems. This lack of supports means that students who are identified with an exceptionality experience additional difficulties and who require additional supports can end up in regular classrooms with no support, making teaching and managing a classroom far more challenging. In these situations, as in the case for addressing identified mental health concerns or other exceptionalities in the classroom, the need for consultation, and professional development opportunities, are essential.

Key support staff members who offer consultation to teachers and also provide direct support to students with mental health concerns are school psychologists. Yet, despite a national recommended ratio of school psychologist per student being at 1:1000 (Saklofske et al., 2007), estimates of the average ratio in Ontario range between 1:2222 to 1:8000 (Association of Chief Psychologists with Ontario School Boards, 2016; Bird, 2020), creating another area of need within schools. This is an especially critical need given that school psychologists respond directly to student needs, understand how mental health concerns translate into classroom challenges, and collaborate with teachers in creating appropriate and achievable goals and recommendations for students (Ontario Psychological Association, 2013). Thus, mental health literacy and self-efficacy gained through professional education and development could improve teachers’ responses to student mental health-related challenges while faced with a shortage of school psychologists. Mental health literacy could promote learning opportunities and dialogues between school psychologists and teachers that are more fruitful for teachers, as their education would have allowed them to ask more pertinent questions related to classroom management and support them to be vitally important members of student success services and specialist groups in schools. In the absence of support staff, knowledge, and self-efficacy in school mental health literacy, teachers are often left on their own to figure out how to appropriately address student

needs, potentially missing opportunities to help in meaningful ways. For example, mental health literacy would allow teachers to have enhanced understanding regarding why a student might be behaving in a way that is not expected or appropriate to the situation at hand. If, for instance, a student with anxiety is singled out and disciplined for an undesired classroom behaviour such as shutting down, the anxiety and behaviour of the student would worsen, and the student-teacher dynamic would flounder.

Strength and Limitations

Strengths

One of the strengths of this study is that it fills an identified gap (Rothi et al., 2008; Weston et al 2008). That is, in the mental health literacy educational context, a large body of research surrounds the impact that education and training in this domain has on both teachers (Kutcher et al., 2015, Kutcher et al., 2013; Powers et al., 2014; Vieria et al., 2014) and students (Kutcher & Wei, 2014; Ojio et al., 2018); however, fewer studies have observed the impact that this has had on teacher candidates (Armstrong et al., 2015; Atkins & Rodger, 2016; Bird, 2020; Bostock et al., 2011; Carr et al., 2018). Furthermore, from the body of research that has investigated mental health literacy with preservice teachers, few have observed its impact within the context of a comprehensive mental health literacy course in a post-secondary institute (Bird, 2020), making this study a contributor to an understudied part of the literature. Additionally, while many conceptualizations of MHL have been geared toward symptomology and illness recognition (Bird, 2020), the operationalization of MHL per the course that preservice teachers learned heavily strayed from the psychiatric model. Instead, the course under evaluation here was geared toward educators in that MHL was defined more from the educational context and less from the medical model, allowing it to be more relevant for the teacher candidates. This also may lead to more engagement with the material (Rothi et al., 2008), and in this way may serve as a good model for adoption by future researchers.

Limitations

The main limitation that this study was that it did not track longitudinal data. Since pre-test and post-test scores separated by only four months were collected, this study is limited by way of understanding whether the gains observed will maintain over time. Another limitation was the homogeneity of the sample, i.e., participants were from the same Canadian university, and they were all second-year students who took the MHL course as part of a mandatory

requirement of their program. Importantly, as a program evaluation this study could not control for learning opportunities and experiences outside the course itself, and many other factors such as history, experiential learning, mentors and other program features could have all contributed to the developing of self-efficacy, well-being, trauma-informed care, and mental health literacy knowledge and proficiency.

Future Research

While the results of this study were promising, future work could refine and expand both the concept of mental health literacy and the course components themselves. For example, a study which conducts a multiple regression analysis to investigate how each of the scales of interest individually contribute to the prediction of the variables of interest could serve as a basis for how to optimally construct a mental health literacy course. In this way, a better understanding of the most important of factors could be obtained, providing clues to tailor school curriculum that incorporates mental health literacy effectively and efficiently. This may also help post-secondary institutions in their development of an optimally suited mental health literacy curricula. Currently, this area of the literature is lacking, and university mandates for the implementation of mental health literacy courses has yet to become widespread (Brown et al., 2019, Rodger et al., 2014).

Additionally, this study used quantitative data and analyses. While a quantitative design was used here, future research that used a mixed-methods approach would allow for richer insight into the reasons why self-efficacy, attitudes toward trauma, well-being, and knowledge about MHL are being influenced (Caruth, 2013). For example, this would allow researchers to ask participants which facet of the course they found most useful, allowing for the analysis of themes that could also help to improve the future delivery of the course contents. Inquires which involve a larger and more representative sample that includes both preservice and in-service teachers in the primary, elementary, and secondary school system would also improve generalizability. While this study did not keep track of preservice teachers' pupils and their academic achievement, there would also be merit in tracking student achievement as instructors learned about mental health literacy and related variables. This would provide additional information as to how students are responding to these gains in teacher competencies. Lastly, future research needs to prioritize developing a consensus surrounding mental health literacy as a

construct. This is crucial to ensure consistent and valid operationalization of the term, so that findings may be interpreted and incorporated into real-world settings.

Conclusion

This study investigated the impact that a mental health literacy course has on preservice teachers' sense of self-efficacy in addressing mental health concerns, attitudes related to trauma-informed care, well-being, and knowledge in mental health literacy promotion. Robust findings indicate that all these areas could be considerably improved, suggesting that teachers could maximize their potential in their unique roles as educators and facilitators of student success.

The importance of incorporating these findings and infusing mental health literacy into a preservice component cannot be understated. Teachers have indicated a lack of education and preparedness when interacting with students with mental health concerns (Froese-Germain & Riel, 2012) and mental health rates have continued to worsen in recent years (Chiu et al., 2020). In order to address the heart of this issue and prepare preservice candidates for their roles as in-service teachers, a reconceptualization of the teaching profession as a whole is needed. Starting with educational policy makers, a dialogue surrounding which elements of a teacher's education truly matters must be had. As Darling-Hammond (2006) puts it, "schools of education must design programs that help prospective teachers to understand deeply a wide array of things about learning, social and cultural contexts, and teaching and be able to enact these understandings in complex classrooms serving increasingly diverse students; in addition, if prospective teachers are to succeed at this task, schools of education must design programs that transform the kinds of settings in which novices learn to teach and later become teachers" (p. 302).

Revamping the educational process and incorporating the necessary mental health supports will not be simple or straightforward. Policy advisors, teachers, preservice curriculum, and school boards need to align their agendas and locate student well-being at the centre of its vision towards the ideals of professional practice. This is a dynamic and continuous process that needs to be shaped by societal, political, and cultural forces; in other words, as the needs of our communities evolve, so do the needs of our students, our teachers, and the education that is guiding them.

As a starting point, within the school board level, directors need to concern themselves more with the needs that is expressed by their internal stakeholders (e.g., teachers, support staff, principals, etc.) and less with external influences (e.g., public perception). A disheartening

example of a failure to do so occurred earlier this year, as a large school board in southwestern Ontario reported “an all-time high graduation rate of 84 percent for 2020-21, even as markers like exams were cancelled for the last two years due to the pandemic ... [crediting] ‘the precise work’ of student success teams in high schools for the achievement” (Rivers, 2022). Despite graduation rate being touted as a marker of success, this statement is a gross misrepresentation of what has been occurring in schools. As a graduate student who interned at this same school board during my studies while also being an active member of a student success team at a secondary school, discourse with staff (i.e., principals, vice-principals, school psychologists, social workers, and teachers) made it evident that an exorbitant number of students—much greater than years past—were passing at the 50–53% range. Put differently, teachers were boosting their pupil’s mark so that they simply received a credit to graduate, leading the internal consensus to believe that the learning loss was extremely profound, and the 84% graduation rate is an entirely inaccurate metric of success. In order to truly locate student well-being at the centre of forward progress, the current disconnect between directors and stakeholders needs to improve so that a clear outline of relevant stakeholder needs may be addressed. Doing so would allow teachers to be heard, supported, and feel empowered, and students could only benefit as a result.

While this is a tall task, there is optimism to be had. Teachers overwhelmingly express a desire in obtaining professional refinement and further education in mental health related competencies (Froese-Germain & Riel, 2012). This indicates they would be receptive to new professional developmental seminars and workshops in this area. In order to compliment the change needed within primary and secondary schools, a revision of tertiary education concerning the Bachelor of Education curriculum is also required. In Canada, mandatory mental health literacy courses that emphasize a strong relational component and that offer direct strategies on implementation are still, somehow, lacking. The preservice education that candidates receive is perhaps the best preventative measure to safeguarding teachers’ feeling inadequate in the realm of mental health down the line in their careers.

As the results of this study indicate, doing so could yield promising results. After all, a singular 12-week mental health literacy course was able to drastically improve preservice self-efficacy, attitudes towards trauma-informed care, interactions with students, the ability to create a mentally healthy climate. Suppose an entire preservice education program followed a similar model and drew from an interconnected range of mental health literacy supports in a holistically

integrated manner? In that case, it stands to reason that the implications for students, families and teachers would be far more impactful and numerous in scope.

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Appendices

Appendix A

Ethical Approval Form



Date: 2 October 2019

To: Dr. Susan Rodger

Project ID: 112483

Study Title: Evaluating a Mental Health Literacy Course for Pre-Service Teachers

Application Type: NMREB Amendment Form

Review Type: Delegated

Full Board Reporting Date: 01/Nov/2019

Date Approval Issued: 02/Oct/2019 10:41

REB Approval Expiry Date: 25/Sep/2020

Dear Dr. Susan Rodger,

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the amendment, as of the date noted above.

Documents Approved:

Document Name	Document Type	Document Date	Document Version
10.1.2019.Research Plan 5018Q 2019_CLEAN	Protocol	01/Oct/2019	2
10.1.2019_Email Script_Longitudinal	Recruitment Materials	01/Oct/2019	1
10.1.2019_LOI_Consent_CLEAN2	Implied Consent/Assent	01/Oct/2019	2
10.1.2019_LOI_Consent_Longitudinal_CLEAN2	Implied Consent/Assent	01/Oct/2019	2
10.1.2019_Mental_Health_Literacy_Course_2019-2020_One_Year_Follow-Up survey	Online Survey	01/Oct/2019	2
100.1.2019_Mental_Health_Literacy_Course-Post-Test survey_CLEAN	Online Survey	02/Oct/2019	1
Mental_Health_Literacy_Course-Pre-Test_2019_survey_CLEAN	Online Survey	01/Oct/2019	2

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Please do not hesitate to contact us if you have any questions.

Sincerely,

Katelyn Harris, Research Ethics Officer on behalf of Dr. Randal Graham, NMREB Chair

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations).

Appendix B
Basic Demographic Questions

- Q1: Please enter your Western Student Login (e.g. jdoe)
- Q2: Please indicate which best describes your experience.
- Q3: Gender
 - Male
 - Female
 - Transgender
 - Prefer not to say
- Q5: Cohort
 - International Education
 - Early Childhood Education
 - Urban Education
 - French
 - STEM
 - Advanced Studies in the Psychology of Achievement, Inclusion and Mental Health
- Q6: Previous Degree
 - Science (biology, chemistry, physics, mathematics)
 - Psychology
 - Child and Family Studies
 - Health Sciences (kinesiology, nursing, medicine)
 - Social Sciences (geography, sociology, anthropology, economics, politic science)
 - Arts and Humanities (english, history, women's studies, philosophy, french)
 - Social Work
 - Religion/Divinity
 - Other (please specify): _____
- Q7: Degree Obtained
 - Undergraduate
 - Masters
 - PhD

- Other (please describe): _____
- Q8: I have learned about mental health and mental illness before this course:
 - Yes
 - No (****If the answer is no, participant is done this section****)
- Q9: If yes, where from? Choose one from the following:
 - Training program (such as ASSIST or Mental Health First AID)
 - Undergraduate course
 - Post graduate course
 - Other (please describe): _____

Appendix C

School Mental Health Self-Efficacy Teacher Survey (SMH-SETS)

SMH-SETS Questions

All items below are judged on a 6-point Likert Scale: 1) Strongly Disagree, 2) Disagree, 3) Somewhat Disagree, 4) Somewhat Agree, 5) Agree, 6) Strongly Agree.

Instructions: Please rate your confidence on the following items.

“I feel confident in my ability to...”

- Question 1: I feel confident in my ability to recognize when there is a student with an internalizing concern (e.g., depression and/or anxiety symptoms)
- Question 2: I feel confident in my ability to recognize when there is a student with an externalizing concern (e.g., defiant, hyperactive, and/or aggressive behavior)
- Question 3: I feel confident in my ability to recognize when a student is displaying indicators of exposure to trauma (e.g., intense event that threatens harm to emotional and/or physical well-being such as natural disaster, violence, serious injury, or sexual abuse)
- Question 4: I feel confident in my ability to provide academic instruction to students with an internalizing concern (e.g., depression and/or anxiety symptoms)
- Question 5: I feel confident in my ability to provide academic instruction to students with an externalizing concern (e.g., defiant, hyperactive, and/or aggressive behavior)
- Question 6: I feel confident in my ability to provide academic instruction to students from diverse backgrounds who have mental health concerns
- Question 7: I feel confident in my ability to consider cultural needs in promoting students' mental health
- Question 8: I feel confident in my ability to respond when a student is in crisis (e.g., pose a potential threat of harm to themselves or others)
- Question 9: I feel confident in my ability to respond when a student is displaying aggressive behavior
- Question 10: I feel confident in my ability to respond to a student who is expressing suicidal thoughts

- Question 11: I feel confident in my ability to refer a student to the appropriate school-based mental health providers
- Question 12: I feel confident in my ability to offer assistance in the classroom when a student is struggling with a mental health concern
- Question 13: I feel confident in my ability to discuss student mental health concerns with parents/guardians.
- Question 14: I feel confident in my ability to promote the social skills of students in my classroom (e.g., review how to solve peer conflicts, provide opportunities for peer interactions on academic projects)
- Question 15: I feel confident in my ability to promote the emotional skills of students in my classroom (e.g., label emotions, model coping strategies, praise for managing emotions)

Appendix D

Attitudes Related to Trauma-Informed Care Scale (ARTIC)

Instructions: For each item, select the circle along the dimension between the two options that best represents your personal belief during the past two months at your job.

I believe that...

1. Students' learning and behavior problems are rooted in their behavioral or mental health condition.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Students' learning and behavior problems are rooted in their history of difficult life events.
2. Focusing on developing healthy, healing relationships is the best approach when working with people with trauma histories.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Rules and consequences are the best approach when working with people with trauma histories.
3. Being very upset is normal for many of the students I serve.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	It reflects badly on me if my students are very upset.
4. I don't have what it takes to help my students	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	I have what it takes to help my students.
5. It's best not to tell others if I have strong feelings about the work because they will think I am not cut out for this job.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	It's best if I talk with others about my strong feelings about the work so I don't have to hold it alone.
6. The students were raised this way, so there's not much I can do about it now.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	The students were raised this way, so they don't yet know how to do what I'm asking them to do.
7. Students need to experience real life consequences in order to function in the real world.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Students need to experience healing relationships in order to function in the real world.
8. If students say or do disrespectful things to me, it makes me look like a fool in front of others.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	If students say or do disrespectful things to me, it doesn't reflect badly on me.
9. I have the skills to help my students.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	I do not have the skills to help my students.

10. The best way to deal with feeling burnt out at work is to seek support.	□ □ □ □ □ □	The best way to deal with feeling burnt out at work is not to dwell on it and it will pass.
11. Many students just don't want to change or learn.	□ □ □ □ □ □	All students want to change or learn.
12. Students often are not yet able or ready to take responsibility for their actions. They need to be treated flexibly and as individuals.	□ □ □ □ □ □	Students need to be held accountable for their actions.
13. I realize that students may not be able to apologize to me after they act out.	□ □ □ □ □ □	If students don't apologize to me after they act out, I look like a fool in front of others.
14. Each day is uniquely stressful in this job.	□ □ □ □ □ □	Each day is new and interesting in this job.
15. The fact that I'm impacted by my work means that I care.	□ □ □ □ □ □	Sometimes I think I'm too sensitive to do this kind of work.
16. Students have had to learn how to trick or mislead others to get their needs met.	□ □ □ □ □ □	Students are manipulative so you need to always question what they say.
17. Helping a student feel safe and cared about is the best way to eliminate undesirable behaviors.	□ □ □ □ □ □	Administering punitive consequences is the best way to eliminate undesirable behaviors.
18. When I make mistakes with students, it is best to move on and pretend it didn't happen.	□ □ □ □ □ □	When I make mistakes with students, it is best to own up to my mistakes.
19. The ups and downs are part of the work so I don't take it personally.	□ □ □ □ □ □	The unpredictability and intensity of work makes me think I'm not fit for this job.
20. The most effective helpers find ways to toughen up – to screen out the pain – and not care so much about the work.	□ □ □ □ □ □	The most effective helpers allow themselves to be affected by the work – to feel and manage the pain – and to keep caring about the work

21. Students could act better if they really wanted to.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Students are doing the best they can with the skills they have.
22. It's best to treat students with respect and kindness from the start so they know I care.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	It's best to be very strict at first so students learn they can't take advantage of me.
23. Healthy relationships with students are the way to good student outcomes.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	People will think I have poor boundaries if I build relationships with my students.
24. I feel able to do my best each day to help my students.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	I'm just not up to helping my students anymore.
25. It is because I am good at my job that the work is affecting me so much.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	If I were better at my job, the work wouldn't affect me so much.
26. Students do the right thing one day but not the next. This shows that they are doing the best they can at any particular time.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Students do the right thing one day but not the next. This shows that they could control their behavior if they really wanted to.
27. When managing a crisis, enforcement of rules is the most important thing.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	When managing a crisis, flexibility is the most important thing.
28. If I don't control students' behavior, bad things will happen to property.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	As long as everyone is safe, it is ok for students to become really upset, even if they cause some property damage.
29. I dread going to my job because it's just too hard and intense.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Even when my job is hard and intense, I know it's part of the work and it's ok.
30. How I am doing personally is unrelated to whether I can help my students.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	I have to take care of myself personally in order to take care of my students.
31. If things aren't going well, it is because the students are not doing what they need to do.	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	If things aren't going well, it is because I need to shift what I'm doing.

-
- | | | |
|--|--|--|
| 32. I am most effective as a helper when I focus on a student's strengths. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | I am most effective as a helper when I focus on a student's problem behaviors. |
| <hr/> | | |
| 33. Being upset doesn't mean that students will hurt others. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | If I don't control students' behavior, other students will get hurt. |
| <hr/> | | |
| 34. If I told my colleagues how hard my job is, they would support me. | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | If I told my colleagues how hard my job is, they would think I wasn't cut out for the job. |
| <hr/> | | |
| 35. When I feel myself "taking my work home," it's best to bring it up with my colleagues and/or supervisor(s) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | When I feel myself "taking my work home," it's best to keep it to myself. |
-

Appendix E

Mental Health Literacy Questionnaire (MHLQ)

All items below are judged on a 5-point Likert Scale: 1) Strongly Disagree, 2) Disagree Somewhat, 3) Neither Agree nor Disagree, 4) Agree Somewhat, 5) Strongly Agree

Subscale 1: Teaching and Leading in a Mentally Healthy Classroom (26 items)

I know...

1. Who to talk to when my student seems to be struggling with behaviours or emotions.
2. The steps to take to make a referral for my student who seems to be struggling with behaviours or emotions.
3. About the resources available in my community to support students' mental health

I can...

4. Effectively address the situation wherein a student confides in me that he/she is contemplating suicide.
5. Lead others to create effective supports for students who have had adverse experiences.
6. Create a classroom that is physically safe for all students.
7. Create a classroom that is emotionally safe for all students.
8. Effectively teach students who have had adverse experiences, such as abuse, household dysfunction, or inadequate housing/nutrition/social support.
9. Effectively teach/work with a student who is highly anxious.
10. Communicate effectively with parents/family members about their child's behavior and emotions.
11. Create positive relationships with parents or caregivers of my students who may be struggling with behaviour or emotions.
12. Effectively teach students who seem overly sad.
13. Adapt my curriculum or practices for students who are suffering from behavioral or emotional problems.
14. Work with families who have done damaging things to their children.
15. Cope with my own stress in my work as a teacher.
16. Identify a student who is flourishing in the classroom.
17. Identify a student who is languishing in the classroom.

18. Identify a student who is mentally healthy in the classroom.
19. Identify a student who is mentally unwell in the classroom.
20. Explain the contextual factors that contribute to students' behaviours and emotions.
21. Effectively explain to a colleague the early signs of a mental illness.
22. Effectively explain to a colleague how to create a classroom environment that is supportive of students with behavioural or emotional problems.
23. Create a classroom environment that is supportive of students with behavioural or emotional problems.
24. Contribute to a student support team process when the student in question has behavioural or emotional problems.
25. Access the resources available in my community to support students' mental health.
26. I can help/support others (teachers) cope with their stress.

Subscale 2: Role Clarity (4 items)

I have...

27. A responsibility to promote the mental health of students.
28. A responsibility to meet the needs of students with behavioural and emotional problems.
29. A responsibility to meet the needs of students with mental illness.
30. A responsibility to continue learning about the most effective ways to support students

Subscale 3: Expectancies (6 items)

I will be...

31. Working with children/adolescents who are sometimes violent.
32. Teaching students who exhibit significant behavior problems.
33. Teaching students who exhibit significant emotional problems.
34. Teaching students who have multiple adverse childhood experiences.
35. Teaching students who have significant attention problems.
36. Teaching students who have significant learning problems.

Subscale 4: Professional Relational Skills (9 items)

I know how to build relationships with...

37. Students
38. Parents
39. Administrators

40. Other teachers

I am confident in my ability to...

- 41. Manage conflict with parents
- 42. Manage conflict with students
- 43. Manage conflict with administrators
- 44. Manage conflict with other teachers
- 45. Support students with their problems

Appendix F

Teacher Well-Being Scale (TWBS)

Currently, how do the following aspects of being a teacher affect your well-being as a student teacher?

Q1 Marking work

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q2 Fitting everything into the allotted time

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q3 Administrative work related to teaching

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q4 Work I complete outside of school hours for teaching

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q5 Working to finish my teaching tasks

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q6 Staying late after work for meetings and activities

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q7 Relations with administrators at my school

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q8 Support offered by school leadership

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q9 Recognition for my teaching

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)

- Mostly Positively (6)
- Positively (7)

Q10 School rules and procedures that are in place

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q11 Communication between members of the school

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q12 Participation in school-level decision making

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q13 Student behaviour

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q14 Relations with students in my class

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)

- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q15 Student motivation

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Q16 Classroom management

- Negatively (1)
- Mostly Negatively (2)
- More Negatively than Positively (3)
- Neither Positively nor Negatively (4)
- More Positively than Negatively (5)
- Mostly Positively (6)
- Positively (7)

Curriculum Vitae

Name: Samir Boulazreg

Post-secondary Education and Degrees: York University
Toronto, Ontario, Canada
2013-2019 B.A. (Hons), Psychology

Western University
London, Ontario, Canada
2020-2022 M.A., Counselling Psychology

Honours and Awards: Ontario Graduate Scholarship (OGS)
2021-2022

Related Work Experience: School Counsellor and Psychometrist (internship)
Thames Valley District School Board
2021-2022

Refereed Publications:

Rokach, A., & **Boulazreg, S.** (2020). The COVID-19 era: How therapists can achieve vitality and diminish burnout symptoms through self-care. *Current Psychology*, 1-18.

Boulazreg, S., & Rokach, A. (2020). The lonely, isolating, and alienating implications of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome. *Healthcare*, 8(4): 413-433.

Rokach, A., & **Boulazreg, S.** (2020). The road to becoming a psychologist: Indicators of success and hardship during the university years. *The Journal of Psychology: Interdisciplinary and Applied*, 154(8): 632-661.

Non-Refereed Publications:

Boulazreg, S., & Rokach, A. (2017). The novice counsellor's self-prophesying path to mediocrity: Shifting the focus from unnecessary fears and anxieties to areas that could use improvement. *International Journal of Psychology Research*, 12(4): 373-392.