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Promoting Mentally Healthy Classrooms: Evaluation of Online Mental Health Literacy Instruction in Pre-Service Teacher Education

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Abstract

To better understand how to prepare large numbers of pre-service teachers for their role in creating and leading mentally healthy classrooms, this program evaluation explores outcomes related to an online mental health literacy course at a large central Canadian university. The course was delivered to 275 teacher education students simultaneously over 10-weeks and 20-hours of online instruction and professional reflection. Results indicated significant improvement in self-reported levels of mental health literacy, stigma toward mental illness, and self-efficacy for teaching students with diverse challenges. Qualitative reviews of participant feedback identified the most valuable aspects of the course and the ways in which it could be improved. A further qualitative analysis of participants' descriptions of experiences related to teaching self-efficacy provided participant-driven insights into the way in which meaningful growth is facilitated for teacher educations students. Collectively, these findings were distilled into five *participant driven kernels of effective practice* that represent significant contributors to program effectiveness: *professional role clarity; expectation setting; understanding the role of mental health, stress, and resiliency for all; easily accessible evidence-based knowledge and resources;* and *opportunities for critical discourse, performance, and feedback.*

Overall, results suggest that the course positively influenced the development of teacher education students' belief in their capacity to contribute meaningfully to school mental health. This is early evidence that enriched online mental health literacy courses offer an efficient and effective way for faculties of education to promote to future teachers' capacity to create and lead mentally healthy school communities.

Keywords: Mental health literacy, teacher education, school mental health, student mental health, attitudes, self-efficacy, stigma, mixed methods

Lay Abstract

Teachers are pivotal in the creation of mentally healthy classrooms, but they receive little to no formal training on how to effectively do so. To better understand how to prepare large numbers teachers for their role, this program evaluation explores outcomes related to an online mental health literacy course at a large central Canadian university. The course was delivered to 275 teacher education students simultaneously over 10-weeks and 20-hours of online instruction and professional reflection. Results indicated significant improvement in mental health literacy, stigma toward mental illness, and belief in one's ability to teach students with diverse challenges. Participant feedback provided insights into the most valuable aspects of the course and the ways in which it could be improved. A further analysis of participant experiences related to teaching provided insights how meaningful professional growth occurs for teacher educations students. Collectively, these findings informed the identification of five *participant-driven kernels of effective practice* that contribute the effectiveness of the program: *professional role clarity; expectation setting; understanding the role of mental health, stress, and resiliency for all; easily accessible evidence-based knowledge and resources;* and *opportunities for critical discourse, performance, and feedback.*

Overall, results suggest that the course positively influenced the development of teacher education students' belief in their capacity to contribute meaningfully to school mental health. This is early evidence that enriched online mental health literacy courses offer an efficient and effective way for faculties of education to promote to future teachers' capacity to create and lead mentally healthy school communities.

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Chapter 1: School Mental Health and the Protective Power of Teachers

"The future prosperity of any society depends on a continuing investment in the health and development of the next generation" (p.1, Harvard's Centre on the Developing Child, 2015).

The negative impacts of mental health and mental illness are so far-reaching that it has been identified as the number one issue facing schools in Canada (Canadian Coalition for Children and Youth Mental Health, 2011). There has been increased recognition of the well-documented, yet complex, relationship between mental health and school experience (Owens et al., 2012; WestEd, 2003); substantial research evidence identifies that students who experience emotional distress are more likely to have their learning compromised through higher rates of absenteeism, relational conflict and poor school adjustment (Repie, 2005; Atkins, Fraizer, Adil & Talbott, 2002; Koller & Bartel, 2006; Perfect & Morris, 2012; Weist, Goldstein, Morris & Bryant, 2003). The cost of mental illness to the Canadian economy is estimated in excess of $48 billion per year (Smetanin et al, 2011) and has been identified as the single largest drain on economic productivity in the Canadian workplace (Stephens & Joubert, 2001). This strain is felt across the global market, with the World Health Organization noting mental health as one of the single greatest burdens of disease (WHO, 2015).

At the same time, positive relationships between teachers and students have been identified as a protective factor against of host of adverse experiences (Whitley, 2010). Positive school climates contribute to increased social competency, better behavioural and emotional functioning, more school engagement and improved academic outcomes for students as well as greater teacher retention and job satisfaction (Whitley, 2010; Greenberg et al, 2005; Hoagwood et al, 2007; Wilson & Lipsey, 2007; Weist & Murray, 2007; Spier, Cai, & Osher, 2007; Spier,

Cai, Osher, & Kendziora, 2007). Moreover, improved access to effective child mental health support in schools may offer one of the most gainful returns on investment within Canadian health initiatives (Roberts & Grimes, 2011).

With one in five Canadian children experiencing mental health challenges (Canadian Mental Health Association, 2016) and many more living with subthreshold symptoms (Flett & Hewitt, 2013), there is a pressing need for educators to adequately prepared for the important role they play in supporting healthy development for children with diverse needs. This preparation begins at the preservice level.

It is estimated that between 10 – 20% of Canadian children will experience a diagnosable mental illness (CMHA, 2016) with higher rates amongst First Nation children (Butler-Jones, 2011). But this is an underrepresentation of the actual distress caused by mental health as it does not include children and youth who experience sub-threshold symptoms (Koller & Bertel, 2006; Santor et al., 2009), chronic stressors (Gilbert et al. 2015), or those whose symptoms go unrecognized by caring adults (Flett & Hewitt, 2013).

Child and youth mental health disorders represent Canada's second highest hospital care expenditure, and among industrialized nations, Canada is ranked third in youth suicide rates (CMHA, 2013). Within Ontario, suicide is the leading cause of non-accidental death for children and youth (Statistics Canada, 2012). Unfortunately, only 20% of those who need support receive it (CMHA, 2013). This gap in need and service provision is largely due to structural barriers related to poverty, stigma, and a poor fit between needs and available services (UNICEF Canada, 2007; Kutcher & McDougall, 2009; Mukolo, Heflinger, & Wallston, 2010). Of those who do receive services, over 75% are arranged by or provided through schools (Rones & Hoagwood, 2000; Wade, Mansour, & Guo, 2008).

Poor mental health places students at an increased risk for long-lasting and potentially detrimental effects on growth and development. These issues, ranging from learning challenges, school failure, behavioural problems, and social difficulties, pose significant negative impacts on quality of life and academic outcomes (Owens et al., 2012; WestEd, 2003; Repie, 2005; Koller & Bartel, 2006; Perfect & Morris, 2012; Weist, Goldstein, Morris & Bryant, 2003). Moreover, adverse childhood experiences (ACEs), such as poverty, loss of a parent, or abuse, can have a profound effect on students' health and availability for learning (i.e. their ability to be present and engaged in learning activities). Exposing the developing brain to stress impacts multiple neurological functions and contributes to a broad range of impairments in later life (Boivin & Clyde, 2013; Gilbert et al., 2015; McDonald, Kingston & Tough, 2014). Multiple investigations into the effects of child maltreatment report robust evidence of a graded relationship between the number of ACEs experienced and a wide range of adult health risks including: smoking, inactivity, asthma, stroke, diabetes, anxiety, sleep disturbance, somatic symptoms, impaired social functioning, promiscuity, difficulty controlling anger, risk for intimate partner violence, and unemployment (Felitti et al., 1998; Gilbert et. al, 2015; Tietjen, Khubchandani, Herial, & Shah, 2012; Liu et al., 2013; Roos et al., 2013; Corso, Edwards, Fang, & Mercy, 2008; Felitti et al., 1998; Strine, Dube, et al., 2012; Strine, Edwards, et al., 2012 as cited in Howard et al, 2015). This issue is of concern because over 50% of Canadian children will be exposed to one or more adverse childhood experience before the age of 18 (Gilbert et al, 2015; McDonald, Kingston, Bayrampour, & Tough, 2015).

With this in mind, it is reassuring to know that schools are in a unique position to effectively impact the health and development of young Canadians and that in recent years there

has been a sharp increase in national policy initiatives targeting improvements to child and youth mental health support.

National Efforts to Improve School-Based Mental Health Support

The Mental Health Commission of Canada is striving to improve health outcomes by increasing mental health literacy for all through publications, toolkits, and training opportunities. At the same time, there is growing momentum to promote comprehensive school-based mental health services through improving partnerships between schools, research organizations, and national child and youth-serving systems (Weist et al., 2017; Hoover et al., 2019). For example, the Centre for Addiction and Mental Health, has partnered with research institutions and professional organizations to make evidence-informed school mental health resources easily accessible for teachers across Canada (e.g. TeachResiliency.ca and Bell Let's Talk in the Classroom). Additionally, the School Mental Health International Leadership Exchange (SMHILE) published findings on essential components to the advancement of comprehensive school mental health including collaboration across sectors, promotion of mental health literacy, implementation of evidence-based practices, increased youth and family engagement, and ongoing quality assurance (Weist et al., 2017). Moreover, having well-prepared and supported school staff has been identified as the number one core feature of an effective comprehensive school mental health system (Hoover et al., 2019)

On the provincial level, there are efforts in Ontario targeting effective implementation of school mental health supports such as School Mental Health Assist Ontario that helps school boards promote mental health and wellbeing through resources, coordination, and coaching. Their Aligned and Integration Model (AIM) for school mental health and wellbeing organizes

and operationalizes ways teachers can promote school mental health (discussed further in Chapter 2).

With a marked increase in Canadian child- and youth-focused mental health policy in recent years (Mental Health Commission of Canada, 2010; School-Based Mental Health Substance Abuse Consortium, 2012; Royal Society of Canada, 2013; Ontario College of Teachers, 2013), teachers are increasingly recognized as significant players within a comprehensive school-based mental health service (Weist et al., 2017). This is especially valuable given the extensive evidence that indicates the ways in which teachers can serve as a protective factor for all students, but especially those who face chronic stressors, social adversities, or mental health challenges (Whitley, 2010).

The Protective Power of Teachers

The National Scientific Council on the Developing Child (2015) summarized decades of research on the importance of healthy relationships in helping children experience success and resilience in the face of adversity. They report that the presence of at least one safe, caring, and stable adult presence a child's life may be the single most important factor in the development of resilience in childhood because it reduces the long-term effects of stressful experiences and promotes self-regulation skills through helping children build a sense of mastery over life circumstances (Centre on the Developing Child, 2015). Shonkoff, the director of Harvard's Centre on the Developing Child states, "Resilience depends on supportive, responsive relationships and mastering a set of capabilities that can help us respond and adapt to adversity in healthy ways… it is those capacities and relationships that can turn toxic stress into tolerable stress" (p. 14; 2015).

Resilience is the capacity to bounce back following adversity, and there is conclusive evidence that it develops through interactions between supportive relationships, adaptive biological systems, and gene expression (Masten, 2012; Russo, Murrough, Han, Charney & Nestler, 2012; Cicchetti, 2010). It is developed through the presence of four key factors in a child's life: supportive adult-child relationships, a sense of self-efficacy and perceived control, opportunities to strengthen adaptive skills and self-regulatory capacities, and connecting to one's community in a way that promotes hope (Centre on the Developing Child, 2015). Schools and classrooms provide ideal opportunities to address these factors and teachers are uniquely situated to influence the development of children and youth, in part, because of their extended and consistent presence in the life of almost every Canadian child.

Teachers are impactful, in that their actions directly and indirectly shape students view of self as a learner (Wang and Eccles, 2012; Centre on the Developing Child, 2015). A supportive, warm, and consistent student-teacher relationship has been shown to boost achievement, motivation, classroom engagement, healthy adjustment and prosocial behaviour (Baker et al., 2008; Furrer & Skinner, 2003; Klem & Connell, 2004; Maulana et al., 2013; Roorda, Koomen, Split, & Oort, 2011; Sulkowski & Lazarus, 2017; Wang & Fredricks, 2014; as cited in Sulkowski & Simmons, 2018). Positive student-teacher relationships have been found to be protective against adversity and buffer the effects of bullying, social exclusion and stress (Sutherland & Oswald, 2005; Sulkowski & Simmons, 2018). Students' perception of the quality and closeness of their relationships with their teacher appears to have a strong influence on motivation and learning, as higher levels of teacher support have been repeatedly associated with increased motivation, goal attainment, and reduced psychological distress (Zee & de Bree, 2017; Atkins et al., 2002; Lynn et al., 2003). A supportive, warm, and consistent relationship with

students boosts achievement scores, classroom engagement, healthy adjustment, prosocial behaviour and resiliency in the face of adversity (Baker et al., 2008; Furrer & Skinner, 2003; Klem & Connell, 2004; Maulana et al., 2013; Roorda, Koomen, Split, & Oort, 2011; Sulkowski & Lazarus, 2017; Wang & Fredricks, 2014; as cited in Sulkowski & Simmons, 2018; Rimm-Kaufman & Sandilos, 2014). Furthermore, students who self-report positive relationships with their teachers are less likely to avoid school, and are more self-directed, cooperative, and engaged in learning (Birch & Ladd, 1997; Decker, Dona, & Christenson, 2007; Klem & Connell, 2004; as cited in Rimm-Kaufman & Sandilos, 2014). A longitudinal study by Wang and Eccles (2012) found that, for high school students, the influence of a positive relationship with a teacher had more influence on school engagement than even the influence of peers.

The protective influence of positive and supportive student-teacher relationships is especially strong for students experiencing psychosocial distress or peer exclusion (Sulkowski & Simmons, 2018). These relationships have been shown to decelerate negative effects of risk factors and promote healthy functioning for children with internalizing (i.e. depression and anxiety) and externalizing (i.e. aggression and conflict) problems (Baker, 2006). Children with internalizing challenges often present as anxious and withdrawn. For these students, supportive teacher relationships have been associated with improved social skills (Berry & O'Connor, 2010), stronger peer relations (Gazelle, 2006), lower rates of school avoidance, reduced anxiety, and better academic outcomes (Baker, 2006). Moreover, O'Connor and colleagues (2011) examined long-term associations between teacher-student relationships and behaviour problems among 1,364 elementary students. Following these students from birth to adolescence, they concluded that high-quality teacher-child relationships served as a protective factor against children developing more severe long-term internalizing challenges. For children with

externalizing challenges, who may present as reactive, argumentative or defiant, research suggests that positive relationships with teachers contributes to a significant reduction in the intensity, duration and frequency of externalizing behaviours and improvements in academic performance (Baker, 2006; Hamre & Pianta, 2005; Meehan et al., 2003; O'Connor, Dearing, & Collins, 201l; Silver et al., 2005). This is especially important given the way in which externalizing behaviours increase the risk of students falling into maladaptive cycles of interaction with both peers and teachers (Baker, 2006).

Interestingly, it is not necessary to maintain *exceptionally* positive relationships with students to actualize these protective effects (Winnicott, 1992). *Good enough* relationships, characterized by the student's perception of satisfactory emotional warmth, support, and guidance, are adequate to promote healthy development (Sulkowski & Simmons, 2018). While these findings are encouraging, it must be recognized that to be available to fill the role of a caring adult, teachers must have the time and energy, as well as the personal and professional resources to do so, and this is especially challenging within a social and professional environment where expectations put on teachers continue to expand and evolve.

Evolving Teaching Expectations

Laptops, smartphones, virtual reality devices, and internet access provide immediate access to unbounded information. Powerful search engines, portable devices, and public internet access means that questions to be answered in seconds and video tutorials can be found for almost any skill or process. In this data-driven age, our pace of life, technical development, and access to connection have contributed to growing recognition that effective teachers do more than efficiently transmit knowledge; they ignite student self-concept as critical thinkers, capable life-long learners and valuable members of a community (Davies, 2014; Hampden-Thompson et

al., 2015; Dietze & Kashin, 2016). Through their relationships and daily interactions with students, teachers help students develop skills needed for self-regulation, sound decision making and resilience (Centre for the Developing Child, 2015). Effective teachers are stewards of growth and development. Perhaps more than ever before, teachers are architects of "environments of relationships" as they create safe classroom spaces that promote learning and development for diverse students (Laurillard, 2002; Centre for the Developing Child, 2015).

Canada is home to an increasingly diverse population and is recognized for its promotion and celebration of diversity. Canadian students come from a wide variety of cultural, religious, ethnic, and socioeconomic backgrounds, representing a vast continuum of interests, abilities, previous learning opportunities, stages of development, gender identities and health status (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Hoagwood & Erwin, 1997). This diversity is represented in Canadian classrooms. Some students will arrive in classrooms with identified medical or mental health diagnoses, while others may be flying "under the radar" yet still facing significant social, emotional, or behavioural challenges (Flett & Hewitt, 2013). Many more will experience debilitating symptoms related to chronic or ongoing stress from events in their lives (McDonald, Kingston, Bayrampour, & Tough, 2015). Every student has the right to an education that addresses their needs as a developing learner and one that promotes inclusion within Canada's diverse communities. The practice of inclusive education reflects the country's highly esteemed values and the essence of the Charter of Rights and Freedoms that prohibits discrimination based on race, national or ethnic origin, color, religion, sex, age, or mental or physical disability (Canadian Charter of Rights and Freedoms, 1982).

In addition to upholding national values around the acceptance and celebration of diversity, schools are identified a critical part of a comprehensive and integrated system of care

for children and youth struggling with mental health (Schwean & Rodger, 2013). While mental health problems and mental illnesses are one of the leading causes of disability and lost productivity worldwide (WHO, 2015), educators are increasingly recognized as uniquely situated to positively influence students' trajectories towards maintaining healthy and productive lives. The Canadian Policy Network has suggested that promotion of access to effective child mental health education and support in schools represents one of the strongest returns on government investment in the health of Canadians (Roberts & Grimes, 2011), and the National Mental Health Commission of Canada (2011) highlighted school-based mental health as a necessary and priority area for development.

Moreover, Canadian educators agree that with the proper information, training and supports, teachers are in an ideal position to challenge stigma, enhance mental health literacy and raise awareness of child and youth mental health (Kutcher & McLuckie, 2010). All of this to say that the expectations of the roles and responsibilities of educators are expanding to involve meaningful involvement in child and youth mental health, which is also reflected in recent changes in nation-wide policy and mental health initiatives. However, the way we prepare teachers for this role is not keeping pace with modern expectations within increasingly diverse classrooms. A survey on school mental health services in Canada identified an urgent need for more teacher education related to mental health promotion and prevention (School-Based Mental Health Substance Abuse Consortium, 2012). "Indeed, attitudes and priorities [related to child mental health] have come full circle, but teacher preparation, and more explicitly expectations of the teacher's role are still catching up" (Rodger et al., 2014 p. 4).

Teaching Role and Preparation. Teachers have a unique role with complex professional expectations and responsibilities and the way in which we prepare and equip teachers for their

role is lagging. A review of available courses offered by post-secondary teacher education faculties across Canada indicated that little to no formal mental health literacy instruction had been delivered to pre-service teachers (Rodger et. al, 2014). Although teachers are often the first to identify, refer, and support students in need (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Rothi, Leavey, & Best, 2008; Reinke, Stormont, Herman, Puri, & Goel, 2011), it is unsurprising that many teachers report feeling unprepared for this role (Cooke et al., 2016; Andrews & McCabe, 2013; Reinke et al., 2011; Kollerm, Osterlind, Paris, & Weston, 2004).

A recent review of the teacher education accreditation standards for the US and Canada revealed that very few provinces, territories or states require teacher education institutions to provide instruction related to mental health (Brown, Phillippo, Weston & Rodger, 2019). Here in Ontario, the Ontario College of Teachers (2013) recognizes that knowledge and skills related to mental health are essential components of teacher education programs. Regulation 347/02 requires teacher education to provide knowledge of child and youth mental health issues relevant to the school environment. This includes competencies related to building student capacity to manage stress, building healthy relationships, promoting self-reflection, providing a safe and supportive classroom, as well as recognizing and addressing stigma (Ontario College of Teachers, 2013). Pre-service education must:

> "Help [teacher] candidates see the relationship among mental health, wellbeing and achievement and view student wellbeing as inclusive of physical, cognitive/mental, social and emotional wellbeing…. To help them understand their role in universal health promotion as well as identifying students who require more intensive intervention and the process students, and their families use to access supports." (p.24).

The specific knowledge, skills, competencies, and attitudes teachers require has been

outlined in research and implementation practice guidelines such as Weston, Anderson-Butcher,

and Burke's (2008) *Comprehensive Curriculum Framework for Teacher Preparation in*

Expanded School Mental Health. Based on extensive research and professional experience,

Weston and colleagues outlined thirty-four specific dispositions (i.e. attitudes, beliefs, and

values) and six domains of mental health knowledge and skills recommended for all teacher

education programs. This framework is designed guide teacher education programs in equipping

pre-service teachers with the capacity needed to meet the social, emotional and cognitive needs

of diverse students and is discussed further in Chapter 2.

Effectively supporting students means integrating home, school and community resources

into a comprehensive school mental health support team (Hoover et al., 2019; Weist et al., 2017;

Vaillancourt & Amandor, 2014). Students who struggle with mental health are best supported by

a team of caring adults, including individuals from their families (parents and caregivers),

schools (teachers, school administrators, educational assistants, and school psychologists etc.)

and communities (nurses, therapists and social workers etc.). Teachers have been increasingly

recognized as critical members of this team (Weist et al., 2017). To be successful in this role,

teachers require knowledge, skills, and attitudes that support their ability to make informed

decisions about school-based mental health and wellness (School-Based Mental Health and

Substance Abuse Consortium, 2012); but they also require the time, energy, and resources to do

so effectively which means occupational stress and teacher well-being must also be carefully

considered.

Teacher wellbeing. While teaching has been reported as one of the most rewarding

occupations, it was also rated as highly stressful with occupational stress levels equivalent to

those of police officers, first responders, and ambulance drivers (Jamison et al, 2005; Jarvis, 2002). Teachers have reported feeling burned out and isolated in their roles (Johnson et al., 2005; Teaching and Learning International Survey, 2013; Ellis & Riel, 2014). This is especially true for novice teachers as the first year of teaching is recognized as the most stressful (Crocker & Dibbon, 2008). In Canada, 25% of teachers will leave the profession within their first five years of teaching with stressful working conditions as one of the most frequently cited reasons (Kutsyuruba, Godden, & Tregunna, 2014; McIntyre, 2006). Therefore, any initiatives targeting changes in the way schools support student mental health must also prioritize the health and wellness of teachers.

Promoting teacher wellbeing is important for both their own health as student success. From a sample of 380 fourth grade teachers, education researchers, Ares and Morin (2016), found negative relationships between teachers' self-reported level of emotional exhaustion and the class average of students' academic achievement and school satisfaction. They identified that, "Teachers suffering from high levels of emotional exhaustion might lack the resources to provide high-quality instruction" (p. 8-9, Ares & Morin, 2016). Investment in the development of teachers' professional knowledge, self-efficacy, emotional regulation, and social and emotional competence may lower levels of teacher burnout and improve student outcomes (Ares & Morin, 2016); however, this is especially challenging within a social and professional environment where expectations put on teachers continue to expand and evolve.

Expectations placed upon teachers include personal, professional, and legal responsibilities for the safety and healthy development of their students (Weston et al., 2008). With an estimated 1 in 4 children having a diagnosed mental health disorder and teachers receiving little to no training on how to best support mental health needs in the classroom

(Andrews & McCabe, 2013; Reinke et al., 2011; Kollerm Osterlind, Paris, & Weston, 2004), it is unsurprising that teachers reported feeling overwhelmed by the magnitude of their task with high rates of stress and burnout (Canadian Mental Health Association, 2016; Koller & Bertel, 2006; Flett & Hewitt, 2013; Gilbert et al. 2015). However, it has been demonstrated that professional development at the pre-service level has a positive influence on teachers' beliefs in their ability to teach all students successfully and may be an efficient way to reduce burnout, build resiliency and address the high rates of teacher attrition within the first five years of teaching (Henderson et al., 2007; Kutsyuruba, Godden, & Tregunna, 2014). Therefore, improving the way in which we prepare teachers for this important role not only improves student outcomes and quality of life (Sulkowski & Simmons, 2018; Ares & Morin, 2016), but it also supports teacher wellness (Henderson et al., 2007) and promotes their ability to become increasingly effective members of school mental health teams (Weston et al., 2008).

For these reasons, it is important to better understand the ways in which teachers are prepared to support school mental health at the pre-service level. This is an important time to support the development of both personal and professional attitudes related to teaching such as the role of teachers in supporting school mental health, expectations about the teaching profession, and beliefs about their own ability to fill the role of an educator (Rodger, Hibbert & Leschied, 2014). This program evaluation explores outcomes related to the first mandatory mental health literacy course offered as a part of a large teacher education program in Canada. The following section explores important definitions and theoretical constructs that are relevant to this program evaluation.

Core Theoretical Concepts

The course under evaluation endeavored to provide pre-service teachers with the knowledge, resources, and, more importantly, the attitudes needed to promote their ability to contribute positively to school mental health. To better understand how to best support pre-service teachers' ability to create and lead mentally healthy classrooms, three key outcomes were explored in this program evaluation: mental health literacy, stigma toward mental illnesses, and self-efficacy for teaching students with mental health concerns. These concepts are situated within a social and cultural context involving the way in which mental health and inclusive education are defined and understood. The following is a review of important terms including mental health/illness, inclusive education, mental health literacy, stigma, and teaching self-efficacy, and an exploration of the theoretical links between knowledge, attitudes and behaviour.

Mental health and mental illness. Various terms related to mental health and mental illness are used interchangeably in research, media, and popular literature. These terms have can carry different meaning within various contexts, however; for the purpose of this evaluation they are operationalized in a way that considers the school and child mental health context.

The Canadian Psychiatric Association (2012) defines the term *mental illness* as "significant patterns of behavioural or emotional functioning that are associated with some level of distress, suffering, or impairment in one or more areas of functioning" and meeting diagnostic criteria. It typically refers to significantly impairing and distressing life-long patterns of cognition, affect and/or behaviour that require clinical or medical support. While the level of impairment may ebb and flow over time, symptom management is generally a life-long process.

In contrast, the term *mental health* is used to refer to a state of wellbeing in which an individual has a sense that they can generally cope with appropriate daily stressors and contribute

to a community in a way that reflects their capacity to do so. Consider a student who has some good days and some bad days but can generally experience success with tasks that are within their ability level and feels they are valued as members of their school community. They may experience an acute stressor, such as having a family member fall ill, moving to a new city, losing a loved one, or being rejected by a romantic interest. When this happens, the study may, for a time, struggle to cope effectively with daily tasks they are otherwise capable of. When stressors are acute and time-limited, individuals can be well-supported through connection to others, stress reduction/modulation strategies, changes to behavioural patterns and personal insights. As such, *mental health problems, mental health challenges* and *mental health issues* are synonymous terms that describe disruption to this a of wellbeing without necessarily meeting a diagnostic threshold of severity of impairment or persistent pattern of behaviour.

Westerhof and Key's Dual Continuum Model of Mental Health and Mental Illness (2010) illustrates the way in which mental health and mental illness can be represented as two distinct but related continuums on which individuals move throughout their lives. Individuals may identify as having a mental illness (i.e. obsessive-compulsive disorder, autism spectrum disorder, or attention deficit disorder) yet also experience flourishing mental health (i.e. they feel happy, healthy, and as though they are contributing to their family or community). Alternatively, a student may not meet the diagnostic criteria for mental illness but may still be experiencing significant stress, loneliness, or other emotional challenges that indicates languishing mental health. Moreover, adverse childhood experiences have a significant effect both mental health and mental illness and can seriously impact a student's overall functioning and availability for learning (Boivin & Clyde, 2013; Gilbert et al., 2015; McDonald, Kingston & Tough, 2014).

The Dual Continuum Model of Mental Health and Mental Illness offers a valuable way to conceptualized mental health and mental illness within the school system through its illustration of how widespread the impacts of mental health can be. Students, teachers, and staff alike exist somewhere on the two related continuums, and their positions may fluctuate over their lifetimes. The Dual Continuum Model also encourages deeper consideration of the ways in which responsibilities related to mental health and mental illness differ within the teaching profession. Teachers possess specific skills and professional expectations regarding the heath and development of diverse students. They are not mental illness diagnosticians or treatment experts. While it may be valuable for teachers to be aware of broad symptoms related to serious mental illness to support their ability to notice and refer students to qualified mental health professionals, their role in the system of care requires understanding of mental health, stress, and resilience in relation to teaching and learning within the school environment.

  Inclusive education. Research suggests that inclusive education promotes positive social and academic outcomes for all students (Burstein, Sears, Wilcoxen, Cabello, & Spagna, 2004; Specht & Young, 2010, Specht, 2012). "Inclusion realizes that all students are unique (perhaps some more than others) and belong in their neighborhood communities where regular life occurs." (p. 46, Specht, 2012).   The core of inclusive practice is the belief that *all* students, without exception, are valued members of their classroom, their school, and their communities (Burstein, Sears, Wilcoxen, Cabello, & Spagna, 2004; Specht & Young, 2010). The Director of the Canadian Research Centre on Inclusive Education, Specht, suggests that within special education the focus remains on identifying the flaws within the child and the reasons why they are unfit for the regular classroom; whereas inclusive education asks, "What can be changed in the environment to meet the student's needs?" (Specht & Young, 2010).

Legitimate concerns exist around the capacity of schools to effectively implement inclusive practices. There has been limited training for pre-service teachers on inclusive practices and classroom management that serve *all* students, such as, differentiated instruction, universal design for learning, assistive and instructional technology, and collaborative practices (Specht, 2012; Specht, 2016). "Teachers are more willing to adopt inclusive teaching practices, those which promote greater equity in classrooms of diverse learners, when they are comfortable with the use of appropriate pedagogy and when they believe that all students can learn and should be included in heterogeneous classrooms" (p. 894; Specht, 2016). For inclusive practices to be effectively implemented teachers must believe their role involves teaching diverse students, they must feel capable of teaching all students, and schools must be committed to prioritizing as much participation as possible for students with exceptionalities (Jordan & Stanovich, 2004). When considering the ways in which teachers are (or are not) prepared for their role in teaching and leading increasingly diverse classrooms, while facing growing professional expectations, within an already demanding and stressful occupation, it becomes clear that teachers must be better equipped with specific competencies and self-efficacy related to effectively supporting all students, including those with exceptionalities related to mental health (Maxwell, 2016).

Mental health literacy. Mental health literacy has been described as "the knowledge and skills that enable people to access, understand and apply information for mental health" (CAMIMH, 2008, p. 2). For teachers, this includes both the necessary knowledge as well as the personal belief in their capacity to make positive choices regarding both their own mental health and that of their students. The Canadian School Mental Health Literacy Roundtable (2012) offered an expanded definition of mental health literacy specifically for the school context:

"The knowledge, skills, and beliefs that help school personnel: create conditions for effective school mental health service delivery; reduce stigma; promote positive mental health in the classroom; identify risk factors and signs of mental health and substance use problems; prevent mental health and substance use problems; and help students along the pathway to care" (SMHSA Consortium, 2012, p. 4).

Based on the work of experts in this area, promoting mental health literacy for teachers broadly includes: developing knowledge about the different types of mental health, addressing negative attitudes towards mental health and mental illness, promoting access to resources, and increasing help seeking behavior (Kutcher et al., 2013). More recently, Rodger, Johnson, Weston and Hatcher (*submitted*) examined mental health literacy specifically in the context of pre-service teachers. Similar to Kutcher et al., their findings included knowledge and skills related to promoting classroom wellness but expanded the definition of the construct to highlight three additional components specific to pre-service teacher experiences: professional relational skills (i.e. skills related to building and maintain relationships with students, parents colleagues, administration etc.); expectancies (i.e. the anticipation of teaching diverse students with behavioural, emotional, or learning challenges); and role clarity (i.e. the belief that teaching involves a responsibility to promote mental health and address the needs of diverse students). These findings highlighted the importance of addressing pre-service teachers' relational skills, professional expectations, and role clarity as they learn and apply new knowledge and skills in a classroom for the first time.

As a formal learning environment, pre-service teacher education is the ideal opportunity to promote mental health literacy in the next generation of teachers. Until recently, mental health literacy had been largely omitted at most faculties of education (Rodger, Hibbert & Leschied,

2014). When offered, courses were either elective or a component of a specialization within education programs, and not a required component of teacher education (Roger et al., 2014). "Teachers must receive adequate preparation in coping with stressors and maximizing overall health and wellbeing. When students and teachers are healthy, the school environment is healthy, and the conditions for learning are present so that students and teachers alike can flourish" (Weston et al., 2008, p. 33).

Stigma. "The co-occurrence of labeling, stereotyping, separation, status loss, and discrimination in a situation where power is exercised" (Modgill, Patten, Knaak, Kassam, & Szeto, 2014, p. 1). Stigma is a complex construct driven by negative attitudes and beliefs about an individual or identifiable group. Stigma encompasses three core elements: stereotypes (widely accepted beliefs about a specific group), prejudice (endorsement of stereotypes with negative emotional reactions such as fear), and discrimination (behavioural responses related to prejudice beliefs) (Corrigan & Watson, 2002ab). These elements lead to increases in negative behaviours such as avoidance, withholding help, and institutionalism or separation of those perceived as different (Corrigan & Watson, 2002b). Perceived stigma is often internalized into self-stigma, which then can lead to low self-esteem or negative feelings, such as anger, stemming from perceived inequality (Corrigan & Watson, 2002b). In a school setting stigma toward identifiable students creates barriers to positive relationships. Stigma has been linked to reduced quality in teacher-student relationships and increased distancing behaviours from teachers toward identified students (Cameron & Sheppard, 2006).

Stigma toward mental illness has been defined as, "The culmination of negative attitudes and beliefs that motivate the public to fear, reject, avoid, and enact behaviors of discrimination against people with mental illness" (Pinto, Hickman, Logsdon, & Burant, 2012, p. 48).

Teachers' stigmatizing attitudes influence not only their beliefs about student ability, but also their discipline style, as well as the quantity and quality of support and instruction provided (Peterson, Rubie-Davies, Osborne, & Sibley, 2016; Timmermans, DeBoer, & VanderWerf, 2016). Teachers who avoid the topic of mental illness in the classroom report that they do so because they believe it is not part of their role, that they are unqualified or unprepared to facilitate a discussion with their students, and they have feelings of fear or discomfort related to the topic and outcomes (i.e. parent complaints, and being unable to answer student questions), which trigger undesirable emotions or behaviours (Cooke, King & Greenwood, 2016). This avoidance reinforces stigmatic attitudes through the loss of opportunities to model and discuss positive, accepting attitudes toward those who experience mental health problems. For teachers, it is not only important that they possess positive attitudes toward students with mental health challenges , but also critical that they use their position, influence and authority to model anti-stigmatizing behaviours for *all* students in their care (Corrigan & Watson, 2002b).

Teacher self-efficacy. Self-efficacy has been described as the belief about one's ability to be successful, or the "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (p. 3; Bandura, 1997). It has been found to predict the degree of effort individuals put forth, their resiliency in the face of challenges, and achievement outcomes (Bandura, 1997). Teaching self-efficacy, or a teacher's belief in their ability to be successful in the teaching role, has an impact on how classrooms function. It has been found that teachers with a stronger self-efficacy are more likely to be resistant to burnout, more committed to the profession, and use more effective teaching strategies (Woolfolk Hoy and Davis 2006; Zee and Kooman 2016).

In a critical review of literature related to teaching self-efficacy, Morris, Usher and Chen (2016) evaluated 82 studies focused on teaching self-efficacy and found that "teachers are most self-efficacious when their experiences provide them with the tools they need to be effective: pedagogical strategies, an understanding of how to use educational resources, and knowledge of the content they teach." (p. 825). Their empirical overview describes how knowledge and skills alone are not enough to improve teaching self-efficacy; which can be seen in new teachers who may understand their professional tasks but struggle to engage students throughout the day. Morris and colleagues conclude that teacher education is a powerful influencer of teacher self-efficacy when pre-service teachers are provided with the opportunity to apply new knowledge and skills in realistic settings (Bruce et al. 2010; McDonnough and Matkins 2010; Tschannen-Moran and McMaster 2009; as cited in Morris et al., 2016). A focus on developing teacher self-efficacy is especially important given the growth in teacher responsibilities and professional expectations.

Knowledge, attitudes and behaviour. Research on the relationship between knowledge, attitudes, and behaviour is diverse, complex, and at times, contradictory (Allum, Sturgism, Tabourazi, Brunton-Smith, 2008). It is logical to assume that people will change their behaviour if provided with information that contradicts their previous beliefs or attitudes. For example, when trying to promote healthy behaviours such as eating vegetables, informing people of the potential risks and benefits of health promoting behaviours *should* result in more people choosing to eat vegetables; however, we frequently see behaviours persisting despite awareness of contradictory information. This is because attitudes and beliefs have significantly more influence on behaviour than knowledge (Fishbein & Ajzen, 2010; Angermeyer, Holzinger, & Matschinger, 2009).

Attitude and behaviour experts, Fishbein and Ajzen (2010) suggest that when striving to influence how individuals behave in the future (behavioural intention), providing new knowledge has a positive but small influence; whereas, changing attitudes or beliefs has a much more powerful influence (Fishbein & Ajzen, 2010; Angermeyer et al., 2009). For example, it can be understood that compared to eating meat, consuming vegetables is better for our bodies, the environment, and animal welfare, but many still choose bacon for breakfast, chicken for lunch, and beef for dinner because of attitudes toward the food items and our expectations about our experience with them (i.e. that bacon is more desirable than kale, is unlikely to result in immediate negative consequences, and is convenient to prepare). By the same token, teachers can know about classroom mental health but fail to incorporate wellness promoting activities due to a doubt about effectiveness of the practices, questions about their ability to enact them effectively, or the implicit (i.e. unconscious or underlying) beliefs that these behaviours are not an important part of teaching responsibilities. In both examples, knowledge is an important factor, but attitudes are more significant drivers of behavioural intention.

While the examples above are effective in illustrating the influence of attitudes and knowledge on behaviour, it is over-simplified. The relationship between knowledge, attitudes, and behaviour is not linear, but rather intertwined with feedback-loops in which attitudes and previous behaviours influence the way individuals qualify, disqualify, favor, and recall new information (i.e. confirmation bias; Nickerson, 1998; Allum et al., 2008). The strength of the influence of new knowledge on attitudes and behaviour will vary depending on many factors, including the degree of compatibility between the newly acquired knowledge and previously held attitudes, the perceived value placed on the previously held attitudes, and the degree of habituation of previous behaviours (Fishbien & Ajzen, 2010). For example, new knowledge will

be less likely to shift attitudes and behaviour if it contrasts with deeply held beliefs (i.e. having stigma or negative beliefs about the capacity of people living with mental health challenges), or challenges behaviours that are frequently engaged in (i.e. long-standing teaching strategies). These findings are important to consider when examining the way in which pre-service teachers are prepared for their teaching role as teacher education programs strive to equip future educators with the competencies needed to engage in effective teaching behaviours in years to come.

To capture the complex relationship between knowledge, attitudes, and behaviour, Fishbein and Ajzen's (2010) Theory of Reasoned Action illustrates the way in which behaviour is driven by beliefs, attitudes, and intentions which are influenced by a host of individual and environmental factors. The Theory of Reasoned Action suggests that volitional behaviours are largely driven by *intention* to perform or act, and intentions are strongly influenced by beliefs and attitudes such as *attitudes toward the behaviour, perceived social norms*, and *perceived behavioural control*. These three elements are influenced by a host of factors such as knowledge, pervious experience, past behaviours, and underlying personal and professional values (Fishbein & Ajzen, 2010). Simply, a behaviour is more likely to be performed if an individual has:

1. Favourable attitudes toward the behaviour and target of the behaviour (i.e. positive beliefs and/or low stigma)

2. Beliefs that others would act in similar ways (i.e. social and/or professional norms)

3. Positive beliefs in the likelihood that the behaviour will lead to desirable outcomes (i.e. self-efficacy)

Attitudes such as stigma and self-efficacy are especially important in caring professions such as teaching, counselling, and nursing, where perception of self and others has a significant impact on the experience of service recipients, or in this case, students (Price, 2015). Stigma and

self-efficacy may be strongly linked to mental health literacy as they both impact the likelihood of individual engaging in supportive or help-seeking behaviours (Thornicroft, 2008). Teaching institutions have indicated that stigma and myths about mental health pose significant barriers to learning for pre-service teachers and early career professionals (Kutcher, Rodger, Leschied & Wei, 2016). For teachers to support student mental health, they must have both the necessary information to do so, and, more importantly, the attitudes that promote action-oriented behaviours in the future. Pre-service teacher education offers a rich opportunity to shape attitudes and beliefs related to supporting student mental health, but the effectiveness of large-scale influence in this area has not yet been explored.

Program Evaluation Questions

Using both qualitative and quantitative analysis, this program evaluation explores outcomes related to the first mandatory mental health literacy program delivered online to 275 pre-service teachers at a large central Canadian university.   The course provided pre-service teachers with the tools, skills, and resources necessary to participate meaningfully in the promotion of healthy school and classroom environemts.   Feedback about course content and delivery provides insights into participant's experiences and the ways in which the course, and others like it, can better meet the needs of preservice teachers. This evaluation answers three key questions:

1. **Program outcomes:** Was there a meaningful shift in constructs important to creating and leading a mentally healthy classroom following a 10-week, 20-hour online course?

2. **Insights and improvements:** What insights emerge from evaluation of participant feedback regarding relevance and value of course content and delivery; and, how could the course be improved?

3. **Teaching self-efficacy insights:** What did pre-service teachers have to say about experiences that increased their teaching self-efficacy?

1. Program Outcomes. As discussed above, significant efforts have been made toward measuring and increasing mental health literacy for in-service teachers; however, little exploration has involved teachers at the pre-service level. Based on related literature it was hypothesized that pre and post measures would show a significant improvement in overall self-reported levels of mental health literacy, stigma, and self-efficacy for teaching with inclusive practices. It was further hypothesized that there would be significantly greater gains seen in participants who identified as having no previous experience learning about mental health and mental illness as compared to those who had previous experiences. Additionally, it was predicted that participants would generally endorse low levels of stigma toward mental health and mental illness prior to beginning the course. This may be influenced by tendencies for socially desirable responding as well as teaching professional norms and standards, as was found in Atkins and Rodger (2016).

2. Insights and improvements. Participants provided two forms of course feedback. First, during its final week, all participants were asked to share their thoughts about the most valuable aspects of the course, as well as ways in which the course could be improved to better address the needs of preservice teachers. Second, participants were provided the opportunity to share anonymous feedback about the course content and delivery as part of the formal course evaluation. Both forms of feedback were explored through a qualitative review to better understand the pre-service teachers' experiences and identify specific ways in which the course could be improved.

3. Teaching self-efficacy insights. In addition to completing pre and post measures on self-efficacy related to teaching students with mental health challenges, participants also reflected on their self-efficacy related to teaching and were asked to share an experience that contributed to a positive belief in their ability to teach. To better understand important contributing factors to the development of self-efficacy related to teaching for pre-service teachers, these responses were reviewed for common and significant themes present across experiences.

Summary

Teacher education is an ideal opportunity to build capacity for teachers' roles in supporting school mental health; but unfortunately, there is little formal pre-service training provided in Canada or the U.S. (Brown et al., 2019). This program evaluation explores the outcomes of *Mental Health Literacy: Supporting Social–Emotional Development,* an enriched online mental health course delivered to 275 pre-service teachers at a large Canadian faculty of education. The 10-week course targeted improvements in the professional capacities, knowledge, and attitudes teachers need to support student mental health. This study 1. Evaluates outcomes related to the course, 2. Presents findings gathered from participant feedback and 3.Explores themes present in participants reflections on the growth of their teaching self-efficacy.

Teachers are critical members of a comprehensive and integrated system of care for children and youth struggling with mental health (Schwean & Rodger, 2013; Hoover et al., 2019). Mental health literacy within the school context supports teachers "create conditions for effective school mental health service delivery; reduce stigma; promote positive mental health in the classroom; identify risk factors and signs of mental health and substance use problems;

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prevent mental health and substance use problems; and help students along the pathway to care"

(SMHSA Consortium, 2012, p. 4).

Mental health problems are a growing concern and a leading cause of disability and lost

productivity worldwide (World Health Organization; 2003). Teachers are ideally situated to

support the growing number of students presenting with mental health challenges, so students

may go on to live healthy and productive lives. Canadian educators agree, with the proper

information, training and supports, that teachers may be the best positioned to challenge stigma,

enhance mental health literacy, and raise awareness of child and youth mental health (Kutcher &

McLuckie, for the Mental Health Commission of Canada, 2010). However, mental health

literacy has been largely omitted from teacher education programs within faculties of education

across Canada (Brown et. al., 2019). For teachers to support a student's mental health, they must

have both the necessary information and attitudes that promote action-oriented behaviours.

Fishbein and Ajzen's (2010) Theory of Reasoned Action serves as a framework that

illustrates the ways in which future teaching strategies or behaviours are driven by intention, and

how these intentions are influenced by three important factors: (a) Believe that classroom-based

strategies are helpful and likely to be effective in supporting students with mental health

challenges; (b) Expect that other teachers use these strategies and that it is part of the teaching

role, and; (c) Feel as though they have the ability to perform the action successfully. Attitudes

such as stigma and self-efficacy are especially important in caring professions, such as teaching,

where perception of self and others has a significant impact on the experience of service

recipients, or in this case, students (Price, 2015). Moreover, levels of stigma and self-efficacy

have been found to relate to the likelihood that an individual will engage in supportive or help-

seeking behaviours (Thornicroft, 2008). With the Theory of Reasoned Action as an organizing

framework, this program evaluation explores outcomes related to preservice teachers' mental health literacy, stigma toward individuals living with mental illnesses, and self-efficacy toward working with students with mental health challenges.

This chapter has outlined the protective power of positive and supportive student-teacher relationships in the development of mental health. It defined key concepts to this program evaluation including mental health, mental health literacy, self-efficacy for inclusive education, and stigma, as well as introducing the Theory of Reasoned Action as an organizing theoretical framework. Chapter 2 serves a deeper exploration of recent and historical findings within related literature as well as the role of policy within the teaching profession, before discussing the course's curriculum development and delivery. Chapter 3 reviews the course content and program evaluation methodology. Chapter 4 reports the quantitative and qualitative outcomes related mental health literacy, stigma, and teaching self-efficacy as well as outlining specific ways in which the course, and others like it, could be improved in the future. Finally, Chapter 5 summarizes findings, implications, and areas of future research related to school mental health and preservice teacher mental health literacy.

Chapter 2: Review of Related Literature

"Although the importance of healthy mental development in children and youth is not disputed, the mental health needs of far too many Canadian children are being ignored. Within the context of recent federal and provincial calls for systemic reform of the mental health care systems for children and youth, we underscore the necessity for ongoing innovation, development, education, and evaluation" (p. 1, Schwean & Rodger, 2013).

More than ever before, teachers are *architects of environments of relationships* in the way they promote learning and development for diverse students (Costello, Mustillo, Erkanli, Keeler, & Angold, 2003; Hoagwood & Erwin, 1997; Laurillard, 2002). Effective teachers ignite student self-concept as critical thinkers, capable life-long learners and valuable, contributing members of a community (Davies, 2014; Hampden-Thompson et al., 2015; Dietze & Kashin, 2016). They buffer against adversity and build resilience through connection (Centre for the Developing Child, 2015). Teachers' relationships and daily interactions with students supports the development of skills needed for self-regulation, sound decision making and the ability to bounce back following adversity (Centre for the Developing Child, 2015). The student-teacher relationship is important for all students but is especially critical for those facing challenges such as mental health, poverty, violence, discrimination, or disruption in caregiver's capacity (Sulkowski & Simmons, 2018; Centre on the Developing Child, 2015). Unfortunately, teachers report feeling unprepared by their pre-service education to support the diverse mental health needs of students (Reinke, Stormont, Herman, Puri, & Goel, 2011; Cooke et al., 2016). And there have been few formal inclusions of school mental health in teacher education policy across

Canada (Brown et al., 2019). Clearly, more can be done to prepare teachers for this important role.

Presently, there is little research that has explored the best ways to support the mental health literacy of pre-service teachers; therefore, this program evaluation reviews the outcomes related to the first mandatory mental health literacy course delivered to 275 pre-service teachers at a large central Canadian university. Chapter 1 introduced the school mental health context and the variables of interest. Chapter 2 offers a deeper dive into research related to the important constructs addressed in this program evaluation including mental health literacy, stigma, self-efficacy, inclusive education, as well as the connections between knowledge, attitudes and behaviour. It reviews related research findings and describes the theoretical frameworks and pedagogical theory that support the design, delivery, and evaluation of the course. The chapter ends brief discussion of considerations relevant to teaching within online learning environemts.

The following section introduces the school context and an expanded definition of mental health literacy as it applies to teachers before reviewing reviews previous research on mental health literacy.

Mental Health Literacy at School

Mental health literacy is the foundation for mental health promotion, prevention, early identification and intervention (Wei et al., 2011; Kutcher et al., 2016; 2017). It reflects the capacity and resources needed to make sound and informed decisions about mental health and to effectively engage in behaviours that promote wellness. Improved mental health literacy is essential for help-seeking behaviours, such as knowing when to connect a student with mental health professionals and has the potential to enhance early identification of at-risk students and

assist them in receiving appropriate care (Milin et al., 2016; Rusch et al., 2011, Henderson et al., 2013). Teacher mental health literacy matters now more than ever before.

In recent decades schools have begun teaching increasingly diverse students to a higher standard, and the societal and professional expectations placed on teachers has been expanding (Darling-Hammond, 2000; Reinke et al., 2011). Educators have been recognized for their daily contact with children and youth, and the influence they hold over student development (Reinke et al., 2011). They are often the first to recognize student needs and frequently participate in the implementation of mental health support (Reinke, Stormont, Herman, Puri, & Goel, 2011; Williams, Horvath, Wei, Van Dorn, & Jonson-Reid, 2007). The unique relationships teachers have with students makes them well situated to observe signs of mental health concerns and promote wellness in the classroom (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010; Rothi, Leavey, & Best, 2008). Despite this, teachers have reported feeling unprepared to address increasing student mental health needs (Andrews & McCabe, 2013; Reinke et al., 2011; Koller, Osterlind, Paris, & Weston, 2004; Whitley, 2010) and have identified the lack of training and knowledge as a significant barrier to effective support (Walter, Gouze & Lim, 2006).

Although all teachers are different, most teachers strive to create a lasting impact on the students they care for, which can be upward of 30 children or adolescents at a time. They contribute to diverse learning experiences through creating and maintaining clubs, sports, recitals, plays, and school trips. Not only are they responsible to clearly and skillfully delivering grade-appropriate curriculum content, but with increasing numbers of Individual Education Programs teachers are also responsible for the individualization of curriculum delivery (and evaluation) based on the unique learning needs, intellectual capacity, and developmental stage for every student in their care. They perform their daily duties in highly dynamic, complex, and

demanding environments with restricted resources and little direct support, often as the only adult in the room. They referee debates, split up fights, mediate damaged relationships, and model good behaviour. They care for students when they are sick and hurt, physically or emotionally. They frequently use personal funds to ensure their classrooms are sufficiently stocked with basic school supplies and snacks for those students whom come from homes that are unable to consistently provide. They watch their students for concerning changes in behaviour or mood and they connect with other caring professionals including educational assistants, speech and language therapists, psychologists, social workers, and behavioural therapists. They do all of this while operating under strict professional expectations and scrutiny of conduct, and are accountable to their students, coworkers, administration, parents, the community, and, now, also the world wide web.

It may come as no surprise that teaching has been identified as a highly stressful occupation (Jamison et al. 2005). So much so that the degree of occupational stress within the teaching profession was been compared to that of ambulance drivers, prison guards, and police officers (Jamison et al, 2005). These working conditions can have a profoundly negative influence on health and resilience, as well as personal and professional capacity. Teacher emotional exhaustion has negative outcomes for both the teacher and the students (Arens & Morin, 2016; Froese-Germain & Riel, 2012; Lee, Kim, & Kim, 2015; Whitley et al., 2012). Therefore, improving mental health literacy for teachers can lead to valuable benefits for students, teachers, and communities (Chang, 2009; Arens & Morin, 2016).

Mental health literacy. The concept of mental health literacy was born from the domain of health literacy and the understanding that poor health literacy (i.e. limited understanding of

health problems and how to access support) is a barrier to making healthy choices and lead to poorer health outcomes (Baker, Wold, Feinglass, 2007; Berkam, Sheridan, Donahue, 2011).

"Defining a particular set of capabilities as a 'literacy' means that: they are a pre-requisite or foundation for other capabilities; they are critical to an individual's life chances; [and] they are essential to the making and sharing of culturally significant meanings" (pg 2. Lea, 2011).

The Canadian Alliance on Mental Illness and Mental Health has defined mental health literacy as, "The knowledge and skills that enable people to access, understand and apply information for mental health" (CAMIMH, 2008 p.2). This definition highlights the value of mental health literacy as "a means to enabling individuals to exert greater control over their health and the range of person, social, and environmental determinants of health" (p. 2074 Nutbeam, 2008). With this definition, enhancing levels of mental health literacy would involve knowledge related to mental health, but also awareness of interconnections between individual, social, and environmental factors, as well as understanding of the way these factors influence the health and well-being of individuals and the communities they learn and work in (Freedman, Bess, Tucker et al., 2009). As such, mental health literacy could be defined as 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. For the purpose of this program evaluation, "capacity" involves knowledge, skills, attitudes, and access to resources required to engage in mental health promoting behaviours.

In general, mental health literacy involves the ability to recognize early signs of stress and poor mental health, developing comfort with help-seeking behaviours, awareness of and use of culturally appropriate self-help strategies, and context specific mental health first aid skills

(Jorm, 2012). However, for mental health literacy to be most effective it must be contextualized to the context and population in which it is applied. Factors such as language, culture, setting, availability of resources, and the relative responsibilities of the individuals involved are important considerations. For example, the knowledge, skills and attitudes needed to make health promoting decisions while on active duty in the Canadian Army will be different from those needed to create and lead a mentally healthy classroom of Grade 7 and 8 students. This is to say, effective mental health literacy programs must carefully consider the strengths and needs of the community in which it is applied, such as the unique role of teachers within schools and the lives of students.

Mental health literacy in school context. Teachers fulfill a unique caretaking role that is distinct from that of parent or mental health professional. Canadian teachers spend more than 21 hours per week in the classroom with their students and many more preparing for and thinking about teaching (OECD, 2014). Their extended daily contact with children and youth provides a window into the lives of students, their families, and the greater community that few other professions see. Although teachers largely work independently, they are a part of a larger comprehensive school mental health support system (Royal Society of Canada, 2013).

With this in mind, the Canadian School Mental Health Literacy Roundtable (2012) offered an expanded definition of mental health literacy specifically for the school context. They describe mental health literacy as, "The knowledge, skills, and beliefs that help school personnel: create conditions for effective school mental health service delivery; reduce stigma; promote positive mental health in the classroom; identify risk factors and signs of mental health and substance use problems; prevent mental health and substance use problems; and help students along the pathway to care" (SMHSA Consortium, 2012, p. 4). This definition highlights the role

of school staff in promoting growth-fostering conditions for students and supporting access to further care when necessary.

Defining mental health literacy for educators is an important step toward developing further clarity around the ways in which teachers' mental health literacy can be promoted and evaluated at the pre-service level. Previous research has found the application of mental health literacy programs to be an effective approach to improving knowledge and attitudes related to mental health (Jorm et al., 2010; Kutcher et al., 2013).

Previous evaluations. Two teams of researchers have made a significant contribution to the research and publication of mental health literacy interventions. Specifically, Jorm and colleagues pioneered the concept of mental health literacy in Australia and developed the Mental Health First Aid program (Jorm et al., 2010); while, over in the northern hemisphere, Kutcher and colleagues developed and evaluated mental health literacy curriculum, *Name,* targeting in-service teachers and school mental health settings (Kutcher et al., 2013).

Jorm suggests that more public knowledge about mental disorders would lead to an increase in the amount of support sought out and provided (Jorm, 2012). His definition of mental health literacy highlighted the important aspects of (a) knowledge related to prevention mental health problems; (b) recognition of when a disorder is developing; (c) awareness of help-seeking options, treatment, and self-help strategies; and (d) skills to support others (Jorm, 2012). Jorm and colleagues in administered a mental health literacy course to 176 high-school teachers across 7 schools (Jorm, Kitchener, Sawyer, Scales, & Cvetkovski, 2010). As compared with a wait-list control group, significant increases were noted in teachers' self-reported knowledge related to mental health, intentions toward helping students, and confidence in delivering support. They also found a reduction in some beliefs related to mental health stigma and an indirect effect on

students who reported receiving more mental health information from school staff. However, no significant effects were found on the level of individual support provided to students by teachers, or on self-reported student mental health (Jorm, et al. 2010), so it was unclear to what degree the course led to changes at the classroom level.

In Canada, Kutcher and colleagues have suggested that within school-based settings comprehensive mental health literacy programs should involve providing information on the symptoms and warning signs of mental illnesses, evidence-based support and treatment options, a reduction in negative attitudes and responses to those with mental illnesses, increasing help-seeing behaviours, and supporting individuals to attain and maintain positive mental health (Kutcher et al., 2013; Kutcher & Wei, 2015). Based on these goals, Kutcher and colleagues developed *Teach Mental Health* (https://www.teachmentalhealth.org/), an online-curriculum resource focused on mental health literacy for pre-service teachers. This resource was freely available to faculty of educations to use within education degrees.

Kutcher and colleagues (2013) also developed the National Curriculum Guide, a Mental Health Curriculum for Grade 9 and 10 students to be delivered by their teacher. The National Curriculum Guide was taught to seventy-nine Grade nine teachers during a one-day training. Pre- and post-evaluations found significant increases in knowledge and attitudes related to mental health following the training (Kutcher et al., 2013). Their evaluations suggest that the National Curriculum Guide contributed to significant and sustained increases in knowledge and a reduction in the endorsement of negative attitudes toward mental illness for both teachers and students (Kutcher & Wei, 2014; Kutcher, Wei & Morgan, 2015; Kutcher et al., 2016; Mcluckie, Kutcher, Wei & Weaver, 2014; Milin et al., 2016). Similar findings were replicated in Malawi (Kutcher et al., 2015) and Tanzania (Kutcher et al., 2016) using culturally-adapted versions of

this resource. Authors concluded that training contributed to positive influences on self-reported knowledge, attitudes, help-seeking efficacy, and comfort levels in helping students.Attitudes related to mental health problems and comfort talking with to students improved to a lesser degree than the increases in knowledge, as attitudes toward mental illness were reported as highly positive at baseline (Kutcher et al., 2013; Kutcher et al., 2015, Kutcher et al., 2016).

Pre-service Teacher Education

In comparison to seasoned, in-service educators, pre-service teachers are in vastly different stages of learning, professional development and identify formation (Rodger et. al, 2014). Without years of classroom experience to inform their learning, there are important variations in how and what is taught and explored within formal teacher education.   For example, when administering a mental health literacy training program to seasoned teachers, it is important to consider how they define the role of a teacher, the degree to which they identify with that role, and the impact of habituation to previous teaching strategies or styles. It may be helpful to ask them to reflect upon their previous experiences with diverse students, and to encourage them to think critically about challenges they have encountered or gaps in their knowledge following years of teaching experience. Whereas, when working with pre-service teachers, thoughtful consideration should be given to the level of teaching self-efficacy, or perceived ability to teach effectively, as they are at a stage in their training in which they have not yet developed fluid teaching styles; may be unaware of relevant laws, policies, and professional practices, and are in the process of learning and integrating what it means to be a teacher (Brown et al., 2018). These are important considerations given the gap that exists between the increasing expectations we place on teachers, and the way in which we prepare them for this significant role.

The gap between the teaching role and teacher education. Despite the increasing recognition of the valuable role teachers play in supporting child and youth mental health at school, here have been few formal mental health literacy development opportunities offered to pre-service teachers (Rodger et. al, 2014; Brown et al., 2019). This is a problematic disservice to teachers because, unlike many other professions which offer a step-wise progression from apprentice to independent professional, new teachers exit formal teacher education programs and begin with a full classroom of diverse students, facing the same standards and expectations as teachers with years, even decades, of experience. This "sink or swim" philosophy contributes to the high level of attrition seen in novice teachers (Fantilli & McDougall, 2009). Here in Canada, almost 25% of teachers leave the profession within the first five years (Kutsyuruba, Godden & Tregunna, 2014). This statistic doubles just south of the boarder in the US where school districts have reported that up to 50% of teachers leave the profession within their first five years, with stress and burnout cited as the most frequent contributing factors (National Commission on Teaching and America's Future, 2002).

The Canadian Teachers Federation collaborated with the Mental Health Commission of Canada on a survey of 3,900 teachers across the country to explore barriers to mental health services offered to students and the degree of preparedness teachers feel toward supporting students (Canadian Teachers Federation, 2012). Survey responses indicate 68% of experienced teachers reported having received no training in mental health literacy, whereas, 75% of less experienced teachers reported never having received training (Canadian Teachers Federation, 2012). A national survey of Canadian teachers found "87% of teachers surveyed agreed that a lack of adequate staff training in dealing with children's mental illness is a potential barrier to

providing mental health services for students in their school, including 52% who "strongly" agreed" (Froese-Germain, 2012; p. 12).

A great deal of teacher stress and burnout has been attributed to feeling insufficiently prepared for managing the emotional or behavioural issues that arise in the classroom (Stormont &Young-Walker, 2017). This may be especially true for novice teachers within their first few years of independent teaching. Despite the evidence that teacher effectiveness increases sharply within the first few years of teaching, many teachers exit before this point as the first years are generally the most difficult (Kain, & Singleton, 1996). Fantilli and McDougal interviewed novice Canadian teachers with 1-3 years of teaching experience and found that:

"[Meeting] the needs of exceptional students posed significant challenges for all novice teachers studied… [and this] resulted in feelings of failure and stress stemming primarily from minimal and/or inadequate school supports and a lack of experience/training specific to the various exceptionalities encountered" (p. 823; Fantilli and McDougal 2009).

It is encouraging to note that research has found that extending practicum opportunities and coursework prepares teachers who are more effective and more likely to stay in teaching (Darling-Hammond, 2000). Quality of teaching has been found to be a more significant predictor of student achievement over demographic characteristics (i.e.: community poverty) or classroom variables (i.e.: class size and spending; Darling-Hammond, 2000). It has also been associated with increased competence, or self-efficacy, in teaching students with disabilities, and this competence was the best predictor of favourable attitudes toward students with exceptional needs (Rizzo & Kirkendall, 1995).

The expansion of teachers' roles to include responsibility for creating and leading mentally healthy schools for diverse students is controversial both within teacher education and teaching professions (Darling-Hammond, 2000). Teachers report being overwhelmed with accountability pressures and the complex needs of their students, feeling as though this expanding role is, "one more thing to do" (Darling-Hammond, 2000). However, given the rates of mental health challenges and adverse childhood experiences for children and youth, teachers will encounter students with a range of social, emotional, and behavioural difficulties whether they are prepared for it or not. Greater school mental health support is a critical component of positive school experience and general life success (Greenberg et a., 2003 Massey et al., 2005; as cited in Weston et al., 2008). It is undeniable that significant gains stand to be had for teachers, students, families, schools and communities if teachers are better prepared with carefully considered and contextually appropriate mental health literacy at the pre-service level.

Mental health literacy in pre-service teacher education. Most initial teacher education programs involve a mandatory general educational psychology course; however, the focus is generally pedagogical theory with little emphasis on mental health or its relationship with learning (Rodger et al., 2014; Koller & Bertel, 2006). Pre-service teachers report learning about mental health problems such as anxiety and depression on an "as-needed" basis primarily through field experiences or informal discussions with supervisors (Bryer & Signorini, 2011).

In an assessment of in-service teachers' perception of their roles, Reinke and colleagues (2011) found that out of 292 teachers from five different education boards in the US, only 4% of respondents strongly agreed they possessed the level of knowledge required to meet the mental health needs of their students, despite the fact that at least 97% of these respondents had dealt with some form of mental health concerns in their students over the past year. In another survey,

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Andrews and McCabe (2013) found that only 7% of teachers felt their pre-service education prepared them in this area, yet 85% reported mental health as their most significant classroom concern. Although experienced and novice teachers report little to no formal training in mental health support, they reported high motivation to improve these skills (Whitley et al., 2013; Canadian Teachers Federation, 2012).

Rodger, Hibbert, Leschied, & Atkins (2013) conducted an extensive review of all available mental health-related courses in 66 Bachelor of Education (B.Ed.) programs across Canada. Approximately half of the 434 courses reviewed were found to include one or more components of mental health literacy (how to maintain good mental health, information about disorders and treatments the reduction of sigma, or help-seeking behaviours). Of these 232 courses, 80% addressed only one of the four components, and and only one course addressed all four (0.4%). Moreover, all 232 courses were offered as electives, suggesting that a small minority of pre-service teachers with special interest in this topic would be exposed to this material. Rodger and colleagues' findings serve as further evidence that mental health has not been prioritized within formal teacher education.

When researchers asked seasoned teachers about gaps in their knowledge of mental health, they reported wanting to know more about recognizing internalising problems such as anxiety and depression (Bryer & Signorini, 2011; Graham et al., 2011; Lynagh et al., 2010); greater awareness of difference between mental health and mental illness; evidence-informed resources to build adolescence resilience (Bryer & Signorini, 2011; Graham et al., 2011); information on evidence linking academic outcomes with mental health (Bryer & Signorini, 2011; Graham, 2011); and information regarding mandatory reporting (Bryer & Signorini, 2011). Experts on pre-service teacher education programs have indicated that barriers to understanding,

such as stigma, myths about mental health, and professional expectations must also be addressed (Rodger, et al., 2014).

Education and mental health experts, Weston, Anderson-Butcher and Burke (2008), have developed a comprehensive, integrated curriculum framework outlining five broad teacher dispositions, and six key domains of mental health knowledge and skills that are recommended for all teachers. These elements represent a guide for pre-service preparation programs and the broad dispositions represent beliefs or attitudes that reflect inclusive educational pedagogy. This includes a commitment to: (a) growth of all students in all domains of development; (b) diversity, tolerance and respect; (c) a strength based and data-driven approach; (d) effective collaboration; and (e) personal and professional growth and wellbeing. They also identify key principles that involve more specific skills and knowledge related to effective and ethical teaching such as: (a) understanding key policies and laws related to teaching; (b) knowledge and skills for learning supports that lead to positive wellbeing; (c) accurately assessing and meeting student needs through data collection; (d) effectively communicating and building relationships with students, parents, and colleagues; (e) using multiple systems such as families and communities to increase overall wellbeing; (f) and addressing professional and personal needs related to growth and wellbeing (Weston et al., 2008). These recommendations serve to highlight the vast and varied professional expectations placed on educators, while remaining broad enough to encourage customization based on cultural context.

The course under evaluation, *Mental Health Literacy: Supporting Social–Emotional Development,* was designed to contribute meaningfully to the capacities and beliefs needed for teachers to effectively participate in comprehensive school mental health through the use of an online learning environment. Online instruction offers a host of benefits including flexible and

autonomous learning (Kutcher et al., 2016), but it is also critiqued for potential pitfalls associated with engagement and opportunities for collaborative engagement (Dumford & Miller, 2018). Given the complex nature of school mental health, the strengths and limitations of online instruction within post-secondary education must be carefully considered.

Pre-service teachers and online learning. Technology and the use of personal devices is increasingly integrated into the teaching and learning process (Roblyer, 2003). Where traditional instruction involves a didactic, instructor-facilitated learning opportunity, widespread use of the Internet and personal devices has enabled interactive and dynamic online learning. A survey of 922 students across 51 courses indicated that students valued the use of a computer for learning due to the enrichment of the learning experience and opportunity to collaborate with peers without concern for geographic location (Lowerison, Sclater, Schmid, & Abrami, 2006). Computers, personal devices, internet access, and the demand for flexible learning opportunities have encouraged more online course offerings at the post-secondary level (Jara & Mellar, 2010).

Research on online learning in higher education found that online courses can promote student engagement after controlling for relevant student and institutional characteristics (Dumford & Miller, 2018). This may be due to the level autonomy granted by online courses. Students who reported feeling greater control over their learning have been found to be more participatory compared to those students who have less control (Lowerison et al., 2006). Moreover, flexible and online learning opportunities are also appealing to higher educational institutions. Kutcher, Rodger, Leschied and Wei (2016) interviewed key stakeholders at 27 educational institutions across Canada and reported a consensus around the desire for a flexible, modular, and easy-to-use interactive online course delivery. Stakeholders felt that interactive computer-based learning tools could be successfully used to promote engagement and meet the

need of diverse online learners while requiring relatively fewer physical resources when compared to in-person classes. As such, *Mental Health Literacy: Supporting Social–Emotional Development,* used multiple forms of media (i.e. videos, articles, and narrated lesson presentation slides), reflective practice, and smaller group peer to peer discussion to promote engagement and enrich the learning experience.

On the other hand, online learning is not without potential limitations. Online courses have been criticized for reducing the richness of peer discussion, constraining collaborative learning opportunities, and limiting instructor – student contact (Dumford & Miller, 2018). Not surprisingly, students with more online courses reported a significantly lower quality of interactions and less exposure to effective teaching practices (Dumford & Miller, 2018). This finding was particularly robust for senior, as opposed to junior, higher education students. As such, online learning appears to support certain forms of student engagement (i.e. time spent engaging in reasoning activities) but deters others (i.e. collaborative).

There is a clear need to evaluate the effectiveness of online learning as its adoption becomes widespread due to its many advantages for both the course providers and the learners. Course instructors benefit from being able to facilitate a greater number of students, distributed across more significant geographic areas. For example, *Mental Health Literacy: Supporting Social–Emotional Development*, was delivered to 275 students simultaneously. Additionally, online learning courses generally require fewer physical resources such as classroom space and learning materials. The course under evaluation was designed and delivered by instructor and three part time teaching assistants. For the learner, online courses provide a convenience of access from any internet-connected personal devices at flexible times. The effectiveness of online learning is also influenced by individual factors of the participants such as education

level, motivation, and capacity for autonomous, self-driven learning (Dumford & Miller, 2018).

Technology and online learning must be thoughtfully and skillfully applied to facilitate

engagement and meaningful learning experiences for students (McCombs, 2000).

The role of online learning to support the development of complex professional capacities

is worth careful consideration, especially when novice teachers enter a pivotal point of

development as early career professionals as they begin to critically apply new ways of

understanding and begin to explore professional attitudes and beliefs. It is these attitudes and

beliefs that serve as significant predictors of future behaviour and form an essential component

of effective mental health literacy (Fishbien & Ajzen, 2014; Roger et al., *submitted*).

Attitudes: An Essential Component of Mental Health Literacy

Attitudes represent complex forms of reasoning that influence behaviour and are

influenced by experience (CIOS, 2015). They have four main functions: help get things done;

help express who we are; protect self-worth; and organize knowledge (Aponte, 2012; As cited by

Price, 2015). This means attitudes impact how individuals understand behaviour and help

"express our ideas about what is normal, right, realistic, sustainable or typical" (Price, 2015 pg.

52). This has been found to be especially important in caring professions, such as teaching,

where attitudes toward self and others have a significant impact on the experience of individuals

in care, such as students (Price, 2015). For example, higher stigma, or negative beliefs toward

individuals living with mental illnesses, has been found to impact the relationship between care

recipients and providers (Thornicroft, 2008).

Attitudes centre on an object, involve an evaluative judgement, and result in an

evaluative response or behaviour (Aponte, 2012; as cited by Price, 2015). Attitudes typically

form over time, often without conscious consideration, and are largely influenced through others

behaviour (i.e. social norms), the integration of new information, and exposure to new experiences (Burhans & Alligood, 2010; Maben et al, 201; Hutchinson et al, 2014). These factors are abundant within pre-service teacher education settings.

Within the context of this program evaluation, stigma and self-efficacy were identified attitudes that are important to teachers' mental health literacy, as beliefs about others and about one's own ability effect the likelihood of a teacher engaging in support for a student facing mental health challenges (Jorm, 2012; Fishbien & Ajzen, 2015; Kutchet et al., 2015).

Stigma. Stigma is a social phenomenon that aims to exclude, reject, shame, and devalue individuals or groups based on a characteristic (Weiss, Ramakrishna & Somma, 2006). It involves the "co-occurrence of labeling, stereotyping, separation, status loss, and discrimination in a situation in which power is exercised" (pg. 363; Link & Phelan, 2001). Stigma related to mental illness represents a public health concern as it is a significant barrier help-seeking behaviour and ongoing participation in treatment (Livingston, 2013). Moreover, pre-service teacher education institutions have indicated that stigma and myths about mental health pose significant barriers to the effective learning and growth of pre-service teachers (Kutcher, Rodger, Leschied & Wei, 2016).

Not only do the negative effects of stigma have a significant impact on quality of life (Corrigan, 1999) but stigmatizing attitudes on the part of helping professionals has been found to undermine help seeking behaviours and the relationship between care recipient and provider (Thornicroft, 2008). Both explicit (attitudes we consciously endorse) and implicit (attitudes outside of conscious control or awareness) attitudes toward individuals with mental health concerns impact the way in which a teacher will recognize and responds to a student in need. A study of attitudes and behaviours of mental health practitioners found that implicit bias toward

people with mental illnesses significantly predicted endorsement of more restrictive or controlling interventions (i.e. inpatient hospitalizations, medication management, random drug screening etc.), even when participants reported positive explicit attitudes (Stull, McGrew, Salyers, Ashburn-Nardo, 2013). Jordan, Lindsay and Stanovich (1997) found that teachers who viewed student challenges as a product of the interaction between the student and environment (a "bad fit") as opposed to an inherent issue internal to the student (a "bad chid"), felt greater responsibility to support student needs. These results encourage reflection on the role that teachers' attitudes toward individuals with mental health challenges may impact the way they respond to students who are struggling.

Moses (2010) interviewed 60 adolescents diagnosed with a mental illness about their experiences related to stigma. Just over one third of the adolescents reported negative treatment such as being underestimated, isolated, blamed, unfairly scrutinized, avoided, disliked, or feared by teachers or school staff because of their illness, which lead to feelings of isolation and frustration. This fits with research suggesting that teachers engage in distancing behaviours with students perceived as threatening or challenging, leading to a reduced quality of instruction (Cameron & Sheppard, 2006). It is also important to note that 10 adolescents from Moses' study reported perceiving their teachers to treat them "different but positive" by accommodating for individual needs, being flexible, and effortful in avoiding repeated punishment, yet still maintaining a high standard (2010).

Stigma, lack of information, or misinformation can also impact the degree to which mental health is discussed in class. Cooke and colleagues (2015) explored teachers' avoidance of the topic of mental health with a group of 15 primary school teachers from representative schools in the UK. Reasons for avoidance included fear of outcomes including parent

complaints, triggering undesired student behaviours or emotions, providing the wrong information, and being unable to answer student questions. Teachers reported having beliefs that mental health problems were less relevant to children, that students (7-11 years of age) were too young to learn about it, and that it is was difficult to teach. They also shared beliefs that mental health problems only affected some people, and that talking about it could lead to worse outcomes. These teachers reported that the discussion of mental health was not a part of their role, that they were not trained to teach it, and that it was not included in the curriculum so they should refer students to other professionals if they had concerns. Although teachers in this study did not endorse discriminatory or prejudicial attitudes toward individuals with mental health problems, the authors concluded that the perception of stigma led to discomfort with the topic, fear of outcomes, and avoidance. This avoidance results in missed opportunities to reduce negative attitudes toward mental health in the classroom through positive messaging and dispelling of myths (Mueller et al., 2015).

These findings highlight the effect of limited teacher mental health literacy, because without the appropriate knowledge and attitudes, teachers will be likely to avoid the topic in the classroom. Another important attitude is self-efficacy for teaching students who have diverse needs.

Self-efficacy for inclusive education. As introduced in Chapter 1, inclusive education reflects the philosophy that all children, including those with mental health challenges, should be welcomed by their local schools in age-appropriate regular classrooms in which their needs are supported so they can participate and contribute to all aspects of life in school (Inclusion BC, 2014). It is centered on Wolfnsberger's (1972) principle of normalization which states all people with disabilities or exceptionalities should have conditions of everyday living and patterns of life

to be as close as possible to regular circumstances (Caruso & Osurn, 2011). While this policy has gained greater recognition, it becomes increasingly controversial as teachers without training or confidence in their ability are asked to support an inclusive classroom. This is parallel in the research findings that teachers report feeling unprepared to program effectively for children with exceptional mental health challenges (Andrews & McCabe, 2013; Reinke et al., 2011).

In a large review of inclusive practices, inclusive education expert, Specht and colleagues (2016), interviewed 1490 pre-service teachers from 11 different faculties of education across Canada. In response to the question, "What does inclusion mean to you?" per-service teachers reported they felt that inclusion was "right for all students and that student should have the opportunity to be successful," (pg. 1) but expressed doubt in the degree to which all students are capable of being successfully included, and their ability to provide necessary support. At the same time, participants spoke about the need to create a positive and welcoming space, instruct in ways that support diverse needs, and engage in a collaborative approach with others (i.e. family members and other allied professionals) in supporting students with exceptional needs. These findings highlight the need to support pre-service teachers' self of confidence, or self-efficacy, in their ability to meet the needs of diverse students.

Self-efficacy has been described as one's belief about their capabilities to produce adequate levels of performance (Bandura, 1994). It is formed though both cognitive and affective processes, suggesting that self-efficacy depends on perceived knowledge and feelings toward owns ability to be successful in a specific target behaviour (Bandura, 1994). This aspect of a "target behaviour" is important in the context of teacher self-efficacy as it highlights the way in which a teacher may feel highly self-efficacious teaching a certain subject, or accommodating specific student needs, yet feel less confident in their ability to be successful in other areas of

teaching (Tschannen-Moran, Woolfolk Hoy, and Hoy, 1998). Teachers have reported feeling confident with homogenous classes but feel uncertain about integrating students with diverse needs (McCrimmon, 2015).

Self-efficacy for inclusive practices with students who struggle with mental health is a critical aspect of mental health literacy, because for teachers to support a student they must not only have the knowledge and skills necessary but must also have the confidence in their own ability to take action and that this action will likely lead to positive outcomes (Florian & Black-Hawkins 2011; Jordan, Glenn, & McGhie-Richmond 2010; as cited in Specht et al., 2016). Behavioural intention is found to be strongly dependent on the prediction, or perceived probability, of success of a target action (Fishbein & Ajzen, 2010). In this way teachers' self-efficacy toward inclusion is directly linked to the implementation of teaching strategies and styles that support student menta health.

In a research synthesis on teachers' attitudes toward inclusive education, Avramidis and Norwich (2002) found that teachers reported largely positive attitudes toward the concept of inclusive education (i.e. teacher-centered variables); but held varying attitudes about student placement based on the nature and severity of the students' needs (i.e. child-centered variables). For example, in the case of severe learning and behavioural issues (which are often linked to mental health) teachers report fewer positive attitudes toward inclusion. Generally, child-centered variables were found to be significantly more predictive of attitudes than teacher-related variables; however, educational environment variables (such as the perceived amount of support and resources), teacher beliefs, and training were identified as important contributors to changing attitudes related to child-centered variables (Avramidis & Norwich, 2002).

"If teachers receive assistance in mastering the skills required to implement an innovation such as 'inclusion' they will become more committed as their effort and skill increase" (Avramidis and Norwich, 2002 p. 142). Teachers are likely to become increasingly committed to inclusive practices as they gain a greater sense of self-efficacy toward teaching students with mental health needs. Higher teaching self-efficacy has been connected to reports of working harder and more persistently to assist struggling students (Woolfolk Hoy, Hoy, & Davis 2009), and agreeable attitudes toward inclusion have been connected to high self-reported teaching efficacy (Soodak, Podell & Lehman, 1998), suggesting that perhaps teachers with high confidence in their ability to teach well are more likely to endorse statements about including children with diverse needs in the classroom and are more likely to exert greater effort toward teaching these diverse students; however, the directionality of this relationship is unclear in these studies. For that reason, it is helpful to further explore research findings related to the connection between attitudes, knowledge, and behaviour.

The connection between attitudes, knowledge and behaviour. For many decades, attitudes have been of great interest to researchers as an important component of behaviour prediction and behaviour change (Allport, 1935). This is because attitudes reflect underlying beliefs and values. Allport wrote that attitudes "…determine for each individual what he will see and hear, what he will think, and what he will do…They are methods for finding our way about in an ambiguous universe" (p. 806, 1935). Research has repeatedly found that individuals generally behave in accordance with strongly held attitudes (Ajzen, 2001). This makes them key predictive variables for determining the likelihood of future choices, actions, and reactions (Ajzen, 2001). It is one thing to be able to observe someone's behaviours and understand underlying motives, and another to be able to reasonably predict the behaviour someone will

engage in in the future, or to have the ability to change future behaviours though shifting attitudes. However, it is important to be reminded that research on the relationship between knowledge, attitudes, and behaviour is diverse, complex, and at times, contradictory (Allum, et al., 2008).

   Knowledge and Behaviour. It sounds logical to conclude that having greater knowledge of the risks and benefits of a specific behaviour would have a strong influence the likelihood of engaging in that behaviour; however, this logic does not hold when considering how challenging it is to break out of bad habits, or how many times find smart and capable individuals behave questionably despite having "*known*" better. Arguably, knowledge alone is not sufficient for creating significant and lasting behavioural change (Fishbein & Ajzen, 2010). Teachers can memorize facts about classroom mental health such as the signs and symptoms of mental health problems, but still not actively engage in strategies or approaches that promote wellness in the classroom. Barriers to behaviour include concerns about effectiveness or value of these strategies, doubts about their ability to perform them effectively, or implicit beliefs about the degree to which mental health is an important part of the teaching role. Attitude and behaviour experts, Fishbein and Ajzen, report that knowledge has a meaningful but small influence on behaviour, and that this mechanism of action occurs largely the way knowledge informs attitudes, which in turn influence the likelihood of specific behaviours (Fishbein & Ajzen, 2010; Angermeyer, et al., 2009).

   Attitudes and Knowledge. In a cross-cultural meta-analysis of 193 nationally representative surveys about general scientific knowledge and attitudes spanning 40 countries, Allum and colleagues (2008) concluded that on average, there was a small but stable positive relationship between scientific knowledge (or "scientific literacy") and attitudes after controlling

for a range of potential confounding variables (i.e. age, education, and gender etc.). The strength of this relationship varied across knowledge domains and attitudes of interest. For example, general scientific knowledge was not predictive of attitudes toward genetically modified food, but more specific knowledge (i.e. knowledge about biology and genetics) was a strong and robust predictor of attitudes toward genetically modified food. This suggests that when attempting to shift attitudes through knowledge, careful consideration should be given to how closely related the knowledge and attitudes are. Moreover, the fact that attitudes themselves are also drivers of accumulation and retention of related knowledge was also highlighted in this study (Allum et al., 2008). Strongly held attitudes influence knowledge through affecting what (and how much) information is sought out, how information is processed, and what information remembered (Allport, 1935). Humans frequently engage in cognitive biases in which they seek out, engage with, and remember information that is supportive of our pre-existing attitudes (i.e. confirmation bias; Nickerson, 1998).

Overall, it was concluded that there is a persistent link between knowledge and attitudes that exists across cultures and contexts (Allum et al., 2008), which is of interest within this program evaluation as the course, Mental Health Literacy: Supporting Social–Emotional Development, targets a shift in important aspects of knowledge, attitudes and behaviour related to school mental health.

Attitudes and Behaviour. Attitudes have been found to predict behaviours across a wide range of studies to varying degrees (Ajzen, 2001). Ajzen reported mean correlations between attitudes and behaviours as ranging from -0.2 (Leippe & Elkin, 1987) to 0.73 (Fazio & Zanna, 1978). A meta-analysis that examined results of 100 studies on attitude-behaviour relation and found a weak to moderate average correlation of 0.38 (Kraus, 1995; more recently supported by

Cooke & Sheeran, 2004; Glassman & Albarracin, 2006). The strength of this relationship is influenced by a host of complex factors: (a) the strength of the attitude held because strong attitudes are easily accessed, stable across time, and linked to previous direct experiences and therefore are more influential on behaviours than weak attitudes (Holland et al., 2002 as cited in Maid & Haddock, 2015); (b) the perceived control over the target behaviour and perceived effort required to be successful in the behaviour (Kraus, 1995); (c) individual factors including the degree of self-monitoring and need for cognition present in the individual; (d) context (such as the presence or absence of an audience, time available for decision making, and private verses professional behaviours); and (e) the degree of match between behaviour and mode of measurement (Ajzen & Fishbein, 1977). These variables reflect the complex reality of human nature and, unfortunately, are too diverse and complex to control for within any one study, but they represent important considerations when investigating possible relationships between attitudes and behaviour.

Although attitudes are considered more predictive of behaviour than knowledge, they are challenging to accurately measure due to their complex and variable nature and the perceived social pressure to hide attitudes seen as undesirable (Maio & Haddock, 2015). For example, within the context of a professional development course, teachers may be reluctant to publicly disclose a personal belief that students with exceptional needs should be segregated and placed into specialized schools due to a desire to be viewed positively and the avoidance of the psychological "cost" of endorsing statements that are viewed as socially or professional undesirable (Dalal & Hakel, 2016). In the context of mental health literacy, consideration should be given to the way in which attitudes are measured due to socially desirable responding. Some methods such as *indirect questioning* (i.e. asking respondents to answer questions from the

perspective of a theoretical "average" person) have been found to result in slightly higher reporting of sensitive constructs (i.e. counterproductive workplace behaviour); whereas, other strategies such as anonymity, counter biasing (i.e. normalizing certain behaviours or beliefs) or implicit goal priming (i.e. priming for honesty in responses through a word similarity task) had little to no effect (Dalal & Hakel, 2016). However, even indirect questioning has been found to result in the projection of socially desirable responding (Hui, 2001). Moreover, indirect questioning involves an inferential leap that assumes the respondent will answer questions about "an average person" by using their own beliefs as a reference point, when in reality they may be responding in a ways that serve as a projection of professional norms or expectations, i.e., what they think the "average teacher" would do (Hui, 2001). This may be especially true for pre-service teachers who do not yet have the school-based experience that exposes them to the range of beliefs or norms within the teaching profession, but rather leans heavily on norms provided through formal education.

Over and above questioning style, self-report measures have been found to reduce the likelihood of deliberate response distortions as compared to in-person interviews (Fowler, 1995; Tourangeau & Smith, 1996, 1998, Tourangeau & Yan, 2007; as cited by Dalal & Hakel, 2016). As such, a self-report measure that focuses on teachers' perception of their own performance across specific and indirectly related abilities (i.e. developing relationships with other professionals, working within a system of care, using positive behavioural strategies for challenging students etc.), as opposed to their perception of the students directly, may be less likely to lead to socially desirable responding. Pre-service teachers may feel less professional pressure sharing that they are not yet confident engaging in specific behaviors that can be used to support students with mental health challenges, as opposed to stating direct beliefs about whether

or not the students belong in the regular classroom (which may be contrary to professional norms and expectations presented in pre-service teacher education). For these reasons, attitudes such as self-efficacy may be less impacted by socially desirable responding than attitudes such as stigma.

Clearly, measuring attitudes and predicting future behaviour is a complex process with many influential components. Ajzen and Fishbein's Theory of Reasoned Action provides an integrative model for incorporating many of these elements and supplies a framework to examine the relationship between knowledge, attitudes and future voluntary behaviours.

Theory of Reasoned Action. Fishbein and Ajzen's Theory of Reasoned Action (2015) was developed as a conceptual framework that accommodates "the multitude of theoretical constructs currently used to account for behaviours related to health and safety, politics, marketing, the environment, the workplace, and many other domains…" (pg. xvii.). The model suggests that behaviours are determined by intentions, while intentions are influenced by attitudes, subjective norms (i.e. perceived norms of relevant peer group or organizational culture), and perceived control; and these attitudes are each determined by underlying beliefs and individual factors. More specifically, this theory suggests that intention is the strongest predictor of future behaviour; however, it is essential to also take skills, abilities, and environmental factors (i.e. behaviour control) into account. The strength of one's intention is determined by three important factors: attitude toward behaviour, perceived normative pressures, and perceived behavioural control. This implies that individuals are more likely to perform the behaviour when they have positive attitudes toward it, perceive normative expectation to do so, and feel they have an element of choice or behavioural control. These three predictors of intention carry different weight depending on the behaviour under examination and individual factors and are influenced by one's related beliefs (Fishbein & Ajzen, 2010).

The next level of the model, the level of beliefs, incorporates important considerations or beliefs that guide behavioural intention. These include: behavioural beliefs (the favourability with which people think of the consequences of the behaviour), normative beliefs (perceived demands placed on them by others), and control beliefs (access to required resources and other possible barriers). Finally, these beliefs are influenced to varying degrees by a host of individual factors including but not limited to: age, gender, ethnicity, education, religion, personality, mood, intelligence, social support, and coping skills etc. Thus, we may learn that many teacher candidates believe that applying the knowledge and skills they develop will enable them to better support their students mental health challenges and encourage greater wellness for the whole classroom (behavioural beliefs); that colleagues, principles and parents expect teachers to perform in ways that support child and youth mental health (normative beliefs); and that they will have the required time, energy, and resources to perform behaviours related to performing these behaviours related to mental health literacy (control beliefs). According to the Theory of Reasoned Action model, this pattern of beliefs would reasonably lead to a decision to incorporate mental health literacy into their classroom management techniques.

The Theory of Reasoned Action has been applied to health-related behaviours (see the Health Belief Model by Rosenstock, Strecher, & Becker, 1994; Stretcher, Champion & Rosenstock, 1997). Research has found that decisions to engage in health-related behaviours primarily rely upon one's susceptibility or perceived risk in encountering an illness, perceptions of the severity of the illness, beliefs about the cost and benefits of performing the recommended behaviour (behavioural beliefs) as well as the perceived self-efficacy in relation to the behaviour (control beliefs). As such, within the context of school mental health literacy it would likely be advantageous to incorporate information about the likelihood of encountering students with

mental heath challenges in the classroom as well as the costs and benefits of integrating mental health literacy into teaching. Moreover, this model highlights the important role of self-efficacy around mental health literacy related behaviours.

Knowledge and skills play critical roles in behaviour intention, but without addressing attitudes behaviour is unlikely to change. Therefore, it is important to consider the specific attitudes teachers may hold toward individuals with mental health challenges (stigma), their beliefs about their responsibility to support and accommodate students with mental health challenges (inclusive education), and their confidence in their own ability to successfully support students in need (self-efficacy).

Bolstering mental health literacy through changing attitudes. Meaningful and lasting attitude change generally occurs over time through behaviour, experience, and reflection (Price, 2015). Attitudes that are long-standing, self-protecting, and strongly linked to values are the most resistant to change (Fishbein & Ajzen, 2010). Promoting attitude change in others requires understanding and respecting current values and beliefs and an approach that involves mutual inquiry or exploration (Price, 2015).

Research suggests that within the teaching profession formal study is an important factor in shifting teacher's attitudes as it can promote faster adaption to working within school environments (Avramidis & Norwich, 2002; Mullen & Murray, 2002). Moreover, when examining both explicit and implicit stigma in mental health providers, Stull and colleagues found that education was significantly and negatively related to implicit bias of mental illness (Stull et al., 2013).

In a UK-based study, teachers who had been trained to teach students with special needs expressed more favourable emotional reactions and attitudes toward these students compared to

teachers who received no training (Beh-Pajooh, 1992; Shimman, 1990). This positive effect of training has been documented in studies conducted in the US (Buell et al., 1999; Van-Reusen, Shoho & Barker, 2000) and Australia (Center & Ward, 1987). While there is little research exploring the role of education and attitudes in pre-service teachers, correlations between increased education and more positive attitudes toward mental health has been found in related caring professions such as nursing (Happpell, Robins, & Gough, 2008) and mental health professionals (Stull et al., 2013).

Happell and colleagues (2008) examined the relationship between theoretical learning hours (i.e. course-based learning, as opposed to learning that occurs through practical application) and pre-service nursing students' attitudes toward mental health. Their findings suggest that groups of nursing students exposed to more theoretical learning hours displayed significantly more positive attitudes towards psychiatric nursing roles compared to students who received less theory and instruction in this area. Perceived course effectiveness was significantly and positively related to students' self-perception of preparedness (i.e. self-efficacy) and attitudes related to mental health.

Henderson et al. (2007) found similar results while exploring the impact of theory on the development of knowledge, skills, and attitudes toward mental health in nursing. When comparing two groups of students who received either 25 or 35 hours of theoretical preparation, those with greater training displayed significantly greater knowledge, skills, and positive attitudes. It has been suggested that greater theoretical preparation leads to greater comfort within the clinical environment in which the theory is applied (Mullen & Murray, 2002). Additionally, it is important to recognize the longitudinal impacts of education. At times, individuals may feel initially resistant to new information that challenges pre-existing attitudes;

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however, attitude change may be more significant over time as the individual implements new skills and experiences the relative success of these actions (Avramidis & Norwich, 2010).

In summary, attitudes are complex constructs that are expressed through behaviours. There is evidence that teachers' beliefs in their responsibility and ability to support students has a significant impact on attitudes toward inclusion which, in turn, influences behaviour and results in differences in teaching practice (Avramidis & Norwich, 2002; Mullen & Murray, 2002). Shifting attitudes is a strategic process that should be goal-driven, collaborative, and respectful of the individuals underlying values and beliefs (Price, 2015). An attitude shift is most likely when individuals can gather insights into their behaviours, when peers and superiors display the desired attitude, and when individuals feel confident that they can make a behavioural change (Price, 2015; Fishbein & Ajzen, 2010). With assistance in mastering and applying skills related to mental health literacy, new teachers may become more committed and effective as they gain more experience.

Summary

Chapter 2 has outlined an expanded definition of mental health literacy as it applies to teachers and school contexts. It described the gap between teaching role expectations and the preparation provided at the pre-service level and explored the applicability of online learning as an efficient and effective tool to support the development of complex professional competencies. Moreover, it reviewed research related to the role of attitudes in teaching and mental health literacy as a prediction of future behaviour with the Theory of Reasoned action as a guiding theoretical framework. There is little research on how to effectively prepare large numbers of pre-service teachers for their role in school mental health; therefore, this program evaluation

offers important insights into the outcomes and lessons learned related to an online mental health literacy course delivered to 275 pre-service teachers simultaneously.

Chapter 3 provides a review of important aspects of the course curriculum development, content, and delivery. The first half of Chapter 3 reviews the development of the course curriculum as informed by: (a) four guiding principles, (b) the application of transformative learning pedagogy within an online environment, and (c) three key sources of content. The second half of Chapter 3 illustrates the "what" and "how" of the course through an account of key aspects of course content and delivery. Together, these elements provided enriched online learning opportunity tailored to promote the development of complex professional capacities for pre-service teachers.

Chapter 3: Course Curriculum

Mental Health Literacy: Supporting Social–Emotional Development was designed to

assist future teachers in understanding development, mental health, family dynamics, self-

esteem, access to care, and the effect of these challenges on student learning (see Appendix A for

course outline). Notably, it was the first mandatory mental health literacy course designed

specifically for pre-service teacher education in Canada. Chapter 1 has described the importance

and value of this work while situating it within the present professional and pedagogical

landscape. Chapter 2 defined key concepts and critically explored the Theory of Reasoned

Action (Fishbien & Ajzen, 2015) as a guiding theoretical framework that infirmed the

philosophy of change. Chapter 3 provides further details on the philosophy, guiding principles,

and pedagogy behind the development of the course content and its delivery.

Curriculum Development

Mental Health Literacy: Supporting Social–Emotional Development is a 10-week, 20-

hour online modular course developed and delivered by education expert and psychologist, Dr.

Susan Rodger based on the need for greater teacher education on school mental health. It was

designed to "…assist classroom teachers in understanding development, mental health,

depression, family dynamics, self-esteem, and access to care..." and the effect of these issues on

learning. The goal of the course was is to raise pre-service teachers' awareness of signs that a

student is in need of support, and offer an opportunity to learn about, practice, and reflect on

strategies that support a mentally healthy classroom. The course was developed around four key

guiding principles, the use of pedagogical philosophy of transformational learning applied within

an online environment, and three core sources of content.

Guiding Principles. *Mental Health Literacy: Supporting Socio-Emotional Development* provided opportunities to learn about, discuss, and apply skills that support the development and maintenance of mentally healthy classrooms through an online environment. The course was built on the foundation of four guiding principles:

1. To develop, enhance and support competencies to create school conditions where children, youth and teachers thrive, develop skills, resiliency and agency in decision-making about holistic health and well-being.

2. To provide introduction to, and suggestions for, evidence-informed school-based health promotion, prevention, and early intervention for children and youth in need.

3. To engage pre-service teachers in developing a community of practice to share, learn, and support one another and to build collective capacity to create learning environments that attend to wellness.

4. To offer effective and practical strategies to support teacher and student resiliency and wellness, and, through the attention to resilience and mental health for both teachers and their students, help create positive, supportive, and growth-oriented relationships for all.

The course strived to provide an enriched online learning experience in which participants were encouraged to critically reflect on their personal values, professional identity, and beliefs related to teaching students with diverse needs. Therefore, in addition to these four guiding principles, transformative learning was also pulled upon as an informing pedagogical approach.

Transformative learning as a pedagogical approach. Transformative learning is a pedagogical approach that highlights the value of fostering experiences that "challenge established perspectives leading to new ways of being in the world" (p.4, Van Schalkwyk et al.,

2019). Grounded in constructivist principles (i.e. constructing meaning from the interaction between one's experiences and ideas; Piaget, 1921), transformative learning "… occurs through critically engaging with what one believes and knows in the light of what one experiences, going beyond and building on prior learning….[and] learning from one's mistakes." (p.3, Van Schalkwyk et al., 2019). In contrast to traditional learning that involves growth in knowledge and skills, transformative learning is characterized by changes in beliefs about others, about behaviours, practices, or one's self (Van Schalkwyk et al., 2019). It is an intentional process that involves critically reflecting on one's attuites, values, and behaviours while grappling with an unfamiliar environment or dilemma (p.4, Van Schalkwyk et al., 2019).

In a scoping review of 99 studies on transformative learning by the Bellagio Global Health Education Initiative, Van Schalkwyk and colleagues (2019) reported that transformative learning experiences resulted in increased outcomes associated with effective leadership such as, awareness of others (regardless of socio-economic status and culture; Levine, 2009; Cohen, Pitman Brown and Morales, 2015; Kumagai, Murphy, and Ross, 2009; Foronda and Belknap, 2012), the ability to consider multiple viewpoints (Cohen et al., 2015) and understanding the context of professional settings (Elliott, Toomey, Goodman, and Barbosa, 2012; Briscoe, 2013). Researchers reported that these shifts would likely lead to the enhancement of values such as humility, integrity (Greenhill and Poncelet, 2013; Hanson, 2013; Branch, 2010), empathy and caring (Cohen et a., 2015, Elliott et al., 2012; Greenhill and Poncelet, 2013). They conclude that effective transformative learning influences the development of professional and personal identities through meaningful shifts in attitudes (i.e. values and self-concept) and behaviour (Van Schalkwyk et al., 2019).

Because of the targeted approach to fostering leadership qualities through meaningful shifts in knowledge, beliefs, and behaviour, transformative learning has been used extensively within formal teacher education.

Transformative learning in teacher education. Transformative teaching pedagogy has been widely applied in environments where learning takes place in unfamiliar settings and where students are active participants, such as nursing and other health professions (Van Schalkwyk et al., 2019). The philosophy and core components of transformative learning could be stretched and applied to the teaching profession in which pre-service teachers learn the theoretical foundations of their professions while also applying new skills it in classroom settings within practical opportunities. Transformative learning is valuable within teacher professional education due to the focus on developing individual attributes that support effective leadership (Frenk et al. 2), and has been previously been applied to, and compared with more traditional learning approaches within teacher education (Curran & Murray, 2008; Arvantis, 2018).

Curran and Murray (2008) applied transformative learning pedagogy to developing pre-service teachers' capacity to successfully engage with parents of children with disabilities. They found that both students who received traditional learning approaches and those who received transformative learning approaches displayed growth in content-related knowledge (knowledge about disabilities, families, services, and resources for families of children with disabilities); however, students in the transformative learning group experienced greater shifts in their understanding of family expectations and professional obligations. They were also more likely to endorse the belief that it was a professional obligation to acknowledge parental expertise, and to provide detailed information abut children to parents (Curran & Murray, 2008).

Transformative learning has been described as an evolving concept with fluid components based on the context to which they are applied; however, some unifying factors have been identified across contexts (Van Schalkwyk et al., 2019). Transformative learning is promoted when there are *opportunities for awareness* (acknowledgement of one's preexisting assumptions and biases), *liberating learning environments* (to support autonomous thinking and self-empowerment*), immersion into unfamiliar context* (engagement with unfamiliar communities or challenges), *clinical skill development* (practice and application of skills through interactive teaching), *critical reflection* (open-ended, critical reflection on values, attitudes, and behaviours), and *social imperative* (high level communication and empathetic engagement with others who have different ways of thinking and doing; Van Schalkwyk et al., 2019). Table 1 outlines the ways in which the course under evaluation strived to address each of the important elements of transformational learning.

Table 1: Key Elements of Transformational Learning within Course Components

Key Elements	Related Curriculum Content
Awareness	Participants were encouraged to reflect on their existing formal and informal experience with mental health, mental illness, and teaching. They were asked to examine the way in which these previous experiences may have impacted current values related to teaching. For example, participants shared about the reasons they wanted to become a teacher and wrote about the role that an impactful teacher had on their lives as students.
Liberating learning environments	Instructors strived to create an online learning environment in which participants felt safe and comfortable engaging in forum-based discussion about the course content and their teaching experiences. Course instructors encouraged participants to critique the program content and to share about the most and least valuable or helpful aspects of the course.
Immersion into unfamiliar context	Students engaged with one of six ongoing student profiles involving mental health challenges. They were provided with weekly updates about the student profile and were asked to apply new understandings based on the course content to determine a course of action.

Key Elements	Related Curriculum Content
	Additionally, at the mid-point of the course, all students participated in a three-week practicum experience. This unfamiliar context provided an opportunity to apply new skills and reflect on their role as a teacher while engaging in a mentorship relationship.
Clinical skill involvement	Direct teaching and application of skills required to effectively support student mental health. This included skill demonstration videos of a role-play scenario in which participants were asked to demonstrate how they would approach and start a difficult conversation with the study from their student profiles. Participants received individualized feedback on the appropriateness of their approach, use of language, and choice of support strategies.
Critical reflection	Students were prompted to reflect on the way their thoughts, feelings, attitudes, and previous experiences applied to the course content and their student profile narrative.
Social imperative	Students were encouraged to participate in the online forums weekly which included both a unique post and a response to a peer. Students were divided into smaller groups based on their program of focus (i.e. junior, intermediate, senior student populations) to promote less anonymity in the online discussion forums.

Course content was delivered through a parallel curriculum model that simultaneously emphasized both student and teacher wellness. This involved asking participants to apply new knowledge and skills to their personal experiences and that of an ongoing student case study. For example, in module five, participants were asked to reflect on the role of stress in their own lives when learning about how stress applies to the classroom functioning and the lives of their students. When participants learned about mindfulness, they were encouraged to practice and apply it to their own lives before integrating it into teaching.

The course was intentional in highlighting the distinct role teachers play within a multidisciplinary *system of care* that surrounds students and their families (Schwean & Rodger, 2013). In addition to involving schools and teachers, a system of care may include helping professionals such as physicians, social workers, speech and language pathologists, case

workers, and psychologists.   The effectiveness of the interdisciplinary system relies on shared values and principles that promote coherent, and well-coordinated system that effectively addresses student mental health needs (Schwean & Rodger, 2013). This course purposefully and explicitly addressed these professional roles and the ways in which the role of teachers is distinct from that of mental health experts. Effective mental health care includes leveraging the unique relationship teachers develop with students, families, and community services to provide effective care to students in need.

Curriculum content sources. The course content was informed by a national evaluation of faculties of education across Canada (Rodger et al., 2014) that found consensus among stakeholders (teachers, researchers, parents, teacher education students etc.) regarding the significant need to increase the number of mental health courses offered, and to make these courses a necessary component of teacher education (Rodger et al., 2014). Consultation with experts indicated that that content for a mental health literacy course should focus on support for issues that effect a large number of children and youth such as: general mental health and wellbeing, stigma and discrimination, effects of mental illness on learning, as well as help-seeking and support finding (Rodger et al., 2014). Three key sources provided a framework of evidence-based curriculum that drew upon larger provincial and national initiatives: (a) Teach Mental Health National Curriculum Project (Kutcher et al., 2015), (b) Ontario based Aligned and Integrated Model from School Mental Health Assist (AIM; www.smh-assist.ca) and (c) the Compressive Curriculum Framework (Weston et al., 2008).

Teach Mental Health Literacy Curriculum Resource. The Teach Mental Health Curriculum Resource was a flexible, modular, online curriculum tool used to support teachers teach and discuss mental health in the classroom. Developed through a partnership between four

institutions (TeenMentalHealth.org; University of British Columbia; Western University and St. Francis Xavier University) this modular, open source resource was freely available through an online repository (TeenMentalHealth.org). Kutcher and colleagues found that the application of this curriculum led to positive shifts in knowledge and attitudes when delivered to in-service teachers through single day or multiple day workshop formats (2015).

At the time of the study, the curriculum resource content was being modified for pre-service teachers and application to courses offered at Canadian faculty of education. It involved multiple units of evidence-based information, theories, and strategies that were identified as relevant for teachers supporting school mental health. The modular components were designed to be incorporated by education faculties in a way that best fits their teaching context. In this study, modules were selected by the course instructor based on significant professional and research expertise, as well as a thorough understanding of the local community and cultural context.

Aligned and Integrated Model (School Mental Health Assist Ontario). The Aligned and Integrated Model was a critical aspect of the course content around which support strategies were organized and operationalized. It outlined the types and degree of support suggested for students based on level of need or severity of challenges. It proposed strategies for teachers that were helpful and appropriate for all students (i.e. creating a welcoming classroom), but also support for students who are struggling (i.e. accommodation, modification, or bolstering resiliency) and recommendations for when to bridge with other professionals for students who require assessment or treatment (i.e. assessment or therapeutic intervention).

This model highlighted the way in which specific supports, accommodations, and modifications could be tailored based on students' individual strengths and needs. The

foundation of the triangle (tier 1) descried actions that support a safe and healthy school climate. These strategies were considered helpful for all students (e.g. promoting a welcoming environment by greeting students with a smile or building positive relationships with parents). The middle section (tier 2) described strategies to support students who needed more support than most other students their age. This included strategies such as: noticing factors related to student concerns and providing thoughtful accommodations or modifications based on individual strengths and needs. The top of the triangle (tier 3) described strategies for the smaller percentage of students whose needs cannot be addressed in the school environment alone. Tier 3 involved bridging with other professionals such as psychologists, psychiatrists, and physicians to better understand and support student needs. Within the course, the AIM model was a key tool that offered a way for pre-service teachers to conceptualize their role as a teacher and the strategies available to them.

Comprehensive Curriculum Framework (Weston et al., 2008). In attempting to clarify the necessity skills and abilities teachers require to support school mental health, Weston and colleagues developed a comprehensive curriculum framework for teacher preparation. The Comprehensive Curriculum Framework involved six key domains of mental health knowledge and skills recommended for teachers and pre-service preparation programs (Weston et al., 2008). In recognizing that teachers must receive adequate preparation in many diverse areas, this framework outlined six key principles for professional teaching practice. These six principles served as important guides when determining content to be included or excluded from the course. They include understanding and skills related to:

1. Key policies and laws that foster delivery of effective and ethical learning support

2. Learning supports to promote academic achievement, healthy development, and school success

3. Collection and use of data measuring student behaviours, affect, and attitudes as they relate to academic, social, and emotional needs

4. Skills to communicate effectively and build relationships with others

5. Engaging with multiple systems (such as families) and people that maximize healthy development and success

6. Personal and professional growth, development, and overall wellbeing

Overall, the three key sources of course content (Teach Mental Health Literacy Curriculum Resource, Aligned and Integrated Model, and the Comprehensive Curriculum Framework) reflect the collective research, knowledge, and practical experience of a host of local, national and international experts in school mental health. Together, they contributed significantly to the development and delivery of the mental health literacy course which was offered entirely online with the use of multimedia and computer-based learning.

Course Modules and Delivery

Mental Health Literacy: Supporting Social–Emotional Development was delivered in ten weekly, modules through an online learning management system. Each module included lessons, resources, and ongoing student profile narratives. Content was delivered through multimedia formats including pre-recorded lecture-style presentations, educational videos, research articles, reflection questions, and first-person narratives. The course also provided additional optional resources that expanded on key topics related to students' experiences. including substance abuse, poverty, newcomers to Canada, violence at home, child maltreatment, family breakdown, parental incarceration, racial discrimination, and general mental health challenges at school.

Table 1: Course Modules and Descriptions

Block 1: Mental Health & Mental Illness: What it is and is not	
Course Modules	**Module Content**
Module 1: Mental Health at School	Social-emotional development Language Mental health and mental health literacy Culture and social determinants of health Equity in access and support
Module 2: Lives of Students and Teachers	What comes to school with us The role of schools and teachers Trauma-informed teaching
Module 3: Mental Health in the Classroom	Prevalence and onset of mental illness What good and poor mental health looks like The influence of mental health on learning and working
Module 4: Critical Issues	Stigma of mental illness Diagnosis, treatment, and outcomes Professional issues
Module 5: Stress	Defining and describing risk Developing healthy coping strategies
Block 2: What to ask, do and say	
Module 6: Learning, Teaching and Working	Building relationships Creating and leading a mentally healthy classroom The "Caring Adult"
Module 7: Building Resilience: Students	What to look for What to say Working with students, parents, and the community
Module 8: Taking Action	The role of the teacher Resources Pathways to care in your school / district
Module 9: Building Resilience: Teachers	Building awareness Self-care Working within the system
Module 10: Leading a Mentally Healthy Classroom	Planning for a mentally healthy classroom Creating a mentally healthy classroom Knowing what is working and what needs attention

The course was delivered in two five-week blocks. As part of the broader teacher education program, participants engaged in a three-week alternative practicum experience halfway through the course (between modules 5 and 6). Modules were designed to be completed in approximately two hours. Content was pre-programmed and released weekly; participants retained the ability to access and review previous content at any time. Table 1 summarizes the course modules and related learning points. Participants also completed weekly quizzes, participated in discussion forums, applied new learning to an ongoing student profile, and completed two skill demonstration videos in which they applied basic support skills and strategies to their student profile.

Quizzes: Knowledge demonstration. After reviewing course content, participants answered quizzes involving 4-8 multiple choice or true-false questions. Quizzes evaluated participants' basic knowledge and understanding of the assigned material. Questions were designed to highlight important concepts and encourage the review and recall of key information. Quiz performance contributed to participants' final course grades.

Student profile narratives: Parasocial contact and knowledge application. Student profile narratives encouraged participants to reflect on and apply course content to an unfamiliar context. It served as a form of *parasocial contact*, a technique used within anti-stigma interventions that targets a reduction in stigma through building familiarity, fostering empathy, and dispelling myths or misinformation (Gronholm, Henderson, Deb, & Thornicroft, 2017).

Participants were introduced to one of six ongoing student profile narratives based on the student-age of their program focus (i.e. junior, intermediate, or senior student-aged populations). Profile narratives were inspired by real student's lived experiences facing specific adversities and stressors, such as newcomer status, racial discrimination, foster care, poverty, chronic stress,

and/or trauma. Narratives were written from the first-person perspective of a teacher so participants could easily insert themselves into the scenario. Weekly updates gradually added new events and information about the students' experiences, challenges, and related stressors, much in the same way that a teacher gradually develops relationships with students over the school year. The narratives reflected the complexity of the teaching profession and included factors related to culture, family, administration, limited resources, and other students.

Participants were prompted to apply the course content to the student profile and determine a course of action given the available information. This included considering the strengths and needs of the student featured in the narrative, available resources, and their personal capacities. These considerations were shared amongst discussion groups of 18-24 participants within an online forum. Each discussion group was assigned one of six possible student profile narratives. Participants had access to explore and follow the development of all six student profiles.

Discussion forums: A space for reflection and professional connection. Participants engaged in weekly online discussion and reflection about the course content. Since the course was provided to 275 pre-service teachers simultaneously, participants were divided into 12 groups of approximately 22 to promote peer-to-peer discussion. Groups were prompted to reflect on module content; identify aspects they found most relevant, salient, or valuable; and describe how that learning applied to their understanding of their assigned student profile narrative. Discussion forum participation contributed to final course grades.

Video roleplay: Skill demonstration. Participants submitted short videos briefly documenting basic mental health literacy skills as outlined in the Aligned and Integrated Model (AIM, introduced in Chapter 2). To accomplish this without the use of real students, participants

were asked to record themselves—using a device such as a laptop or smartphone—addressing the student from their assigned student narrative with authentic language and tone as if they were speaking to the student directly. Additionally, they were asked to tailor their support strategies to the student's strengths, needs, and context. Participants submitted videos at the mid- and end-points of the course. They received feedback about their approach and application of strategies.

Conclusion

Overall, *Mental Health Literacy: Supporting Social–Emotional Development* provided pre-service teachers with a flexible online space in which they could listen to experts discuss the relationship between mental health and learning, explore relevant evidence-based tools and resources, apply new ways of understanding to unfamiliar situations, and reflect on their role in creating safe and healthy classrooms for all. Participants had flexible access to the course and were encouraged to engage when, how, and from where they felt most useful. For example, some participants' preference may be to complete a module in a single session at the library, while others may prefer to access the material from home throughout the week. This learning autonomy and flexible approach may be especially valuable given the sensitive nature of the topic of mental health and mental illness and the preferences of adult learners (Heim & Holt, 2018; Sharpe, Wu, & Pavlakou, 2019).

Chapter 4: Research Design and Methodology

This program evaluation explores course outcomes and participant perspectives to better understand how large groups of pre-service teachers can be effectively and efficiently prepared for their influential role in supporting student mental health. The course under evaluation, *Mental Health Literacy: Supporting Social–Emotional Development,* was an online course required for all Bachelor of Education students at a large Canadian university. The 10-week course was provided to 275 participants simultaneously. Course objectives involved improving pre-service teachers' ability to engage meaningfully in school mental health as part of a collaborative system of care.

Through multimedia instruction, knowledge application, group discussion, and personal reflection, the course targeted the relevant capacities required to promote healthy classroom practices for all. Ultimately, the course strived to provide pre-service teachers with the knowledge, skills, and attitudes required to: (a) lead a mentally healthy classroom for diverse students; (b) notice and effectively respond to students in need of additional mental health supports; and (c) employ pathways of care to bridge with other caring adults and professionals when necessary. Overall, the course clarified the important roles and responsibilities that teachers have regarding school mental health; moreover, it encouraged critical reflection about the relationship between mental health and student learning.

Course outcomes were evaluated through a mixed-methods design involving pre-post quantitative measures and a qualitative review of participant responses within an online forum. Outcomes of interest included mental health literacy, stigma toward individuals living with mental illnesses, and self-efficacy for teaching students with mental health challenges. Results of this analysis can be used to better understand the degree to which the course achieved its

objectives, determine ways it can be improved, and identify participant-driven insights regarding the ability of online environments to foster mental health literacy for pre-service teachers.

Chapter 3 first describes the key aspects of the course content and delivery and reviews important considerations regarding the study design. It then describes the participant sample, instrumentation, and analysis used to address three key areas of evaluation: program outcomes, insights and improvements, and teaching self-efficacy themes. Because this study is a program evaluation targeting the improvement of the course content and delivery, a formal 'Letter of Exception' was received from the Research Ethics Board of the host university delivering the course (Appendix B; see *Ethical Approval* section below for further details).

Study Design: Program Evaluation

A program evaluation is a decision-making tool. It is an examination of merit to explore the degree to which a program, policy, or intervention achieved its objectives (Grembowski, 2016). It informs decision makers about the relative success of a program through evaluating and reporting on program outcomes, drivers of success, and areas for improvement; but even more importantly, it promotes accountability in decision-making and social welfare (Gargani & Miller, 2016). Health program evaluation expert Grembowski (2016) writes, "The value of evaluation comes from the insights that its findings can generate, which can speed up the learning process to produce benefits on a societal scale." Moreover, Grembowski (2016) suggests that program evaluations are especially valuable in public education settings due to limited resources, escalating costs, and increased emphasis on accountability for prevention and identification of mental health challenges.

There has been some debate over the distinction between program evaluation and other inquiry-based approaches or research methods (Gargani & Miller, 2016). Although program

evaluation generally uses the same tools and methods as research studies, the focus of evaluation is to improve an intervention's ability to produce desired outcomes (Grembowski, 2016). Conversely, the focus of research studies is to uncover answers to broad questions in a way that contributes to the development of theories which attempt explain a range of phenomena (Spector, 2015). Put another way, it has been suggested that research seeks to answer, "What do these results mean for a larger population?" while program evaluation asks, "How effective was it, why was it effective, and how can it be improved?"

The present program evaluation examined relevant outcomes of and participant experiences with the online course *Mental Health Literacy: Supporting Social–Emotional Development*. It used a mixed method design to explore outcomes related to knowledge, skills, and attitudes required for teachers to support student mental health including mental health literacy, stigma toward mental illness, and self-efficacy in teaching students with diverse challenges. Participant feedback illuminated appropriateness of content, the value of course components, and ways that the course could be modified to better address the needs of pre-service teachers within a post-secondary online learning environment.

Program evaluation in post-secondary online learning. Program evaluations systematically explain the results of educational practices and interventions (Spector, 2015). Feedback on effectiveness of educational practices is especially important when new modes of teaching are adopted, such as the increased integration of technology into learning experiences (Salyers et al., 2014). There has been a sharp increase in the number of online courses offered at post-secondary levels in recent years (Salyers et al., 2014), and while online classrooms offer great flexibility and autonomy, research on course-level program evaluation of online university courses is sparse (Jara & Mellar, 2010).

Canadian universities have been considered largely autonomous in the evaluation of their own quality assurance standards and procedures. Provincially, the Quality Assurance Framework established by Ontario Universities Council on Quality Assurance (2016) has outlined evaluation criteria, quality indicators, and quality enhancement factors for faculty or program-wide evaluation; however, there was little documentation about course-specific analysis —possibly due to the significant variation across fields of study. With few specifiers provided by governing institutions, findings from related research in the area of online post-secondary program evaluation served as a key informant in the design of this evaluation.

Evaluation of online learning and discussion forums as a data source. In their review of quality enhancement for e-learning courses at the post-secondary level, Jara and Mellar (2010) cautioned against evaluating effectiveness of online courses using the same criteria applied to in-person courses. They highlighted the need to evaluate online courses through both qualitative and quantitative data with significant value placed on feedback from participants, which is frequently gathered through computer-based means such as discussion forums.

Online data sources have been identified as accessible, safe, and relevant for program evaluation (Im & Chee, 2006). Jamison and colleagues (2018) examined the qualitative themes emerging from an online discussion on a specific health topic and compared that to themes from interviews with patients about the same health concern (Jamison, Sutton, Mant, & De Simoni, 2018). Importantly, they found that the themes identified in the online forum data matched those found from the interviews; thus, they concluded that both modes of data collection were "rich and useful sources of data and knowledge, revealing similar issues about patients' core experience" (p.1. Jamison et al., 2018). Further, Jamison and colleagues (2018) suggested that participants had formed trusting, peer-support systems in the online forums based on shared

experiences. The trust between users led to unique data that emerged from the way in which they commented and replied to one another's experiences, and that was not present in the interviews.

While online forums can offer important evaluative insights, there are also limitations to consider. One such consideration is achieving theoretical saturation (Im & Chee, 2006). Theoretical saturation is the point at which further sampling is not likely to lead to new insights because evaluators observe similar cases or repetitive instances without new themes emerging. That is properties of the categories under investigation are "saturated", thus the evaluator can stop sampling (Glaser & Strauss, 1967). Theoretical saturation supports the credibility, dependability, and transferability of findings, especially when data is being reviewed from abundant sources, such as online forums (Im & Chee, 2006; Kerr, 2010). With 275 participants posting approximately three to four times in the online forum each week, there was significant qualitative data available for review. For this reason, this program evaluation randomly selected participant responses until saturation was attained using a saturation grid (See Qualitative Data Sample Procedure section for further information; Brod, Tesler, & Christiansen, 2009).

Consequently, there is a growing body of evidence suggesting that online forums are suitable data collection sources when capturing the views of computer literate populations within a peer-to-peer environment (Holtz et al., 2012; Jamison et al., 2016). It has been emphasized that participant experiences should be a key informant of program outcomes and enhancement (Harvey, 2003). Learner-centered data should be collected and integrated into an ongoing cycle of analysis, reporting, action, and feedback (Harvey, 2003). For this reason, the present program evaluation drew heavily on both direct and indirect feedback from participants through the online forum in addition to quantitative findings. This evaluation sought to identify both the *what* and the *how* related to program outcomes, which necessitated the use of a mixed-methods design.

Mixed-methods program evaluation design. Mixed-methods research involves collecting and analyzing both qualitative and quantitative forms of data in a single study (Creswell, 2003). It allows researchers to examine the degree to which qualitative and quantitative results support or contradict each other, ultimately prompting a richer understanding of results and findings (Grafton, Lillis, & Mahama, 2011; Greene, 2008).

Using qualitative and quantitative methods jointly can mitigate the limitations of using only one form of data (Greene, Caracelli, & Graham, 1990, Tashakkori & Teddlie, 1998; as cited in Creswell, 2006). For example, quantitative analysis allows the isolation and testing of variables of interest in a large sample size, but limits depth of analysis and explanatory power (Creswell & Plank Clark, 2011). Conversely, qualitative analysis highlights the depth and variability of participant experiences, but it is more challenging to maintain and demonstrate rigor in its application (Creswell & Plank Clark, 2011; Anderson, 2010). While quantitative data highlights statistically significant changes in important variables, qualitative data provides depth and illustration based on participants' perceptions and experiences.

Because of these advantages, the current program evaluation adopted a mixed-methods procedure (Creswell, 2006); however, there are also important shortcomings to consider. A mixed-methods approach involves systematically incorporating large amounts of information into overarching conclusions, which typically requires more resources than any one method alone. Additionally, mixed method research has been critiqued for blending two differing, and perhaps incommensurable, approaches (Greene, 2008). Nevertheless, it has also been described as an approach "that attempts to consider multiple viewpoints, perspectives, positions, and standpoints" (Johnson, Owuegbuzie, & Turner, 2007, p. 113). Ultimately, this approach

encourages the examination of diverse practices and belief systems to gain a thorough understanding of the complex phenomenon under study (Denscombe, 2008; Morgan, 2007).

Quantitative outcome data sources. Participants completed pre- and post-test measures that included the *Mental Health Literacy Questionnaire for Educators* (MHLQ; Weston, Rodger & Johnson, *in process*), *Opening Mind Stigma Scale* (OMS, Modgil, Patten, Knaak, Kassam, & Szeto, 2014), and the *Teacher Efficacy for Inclusive Practices* (TEIP; Sharma, Loreman & Forlin, 2012). They also completed weekly quizzes that evaluated important knowledge related to school mental health.

These constructs were chosen because they align with the Theory of Reason Action, which states that knowledge and attitudes are drivers of behavioural intention (Fishbien & Azjien, 2010). As previously discussed in Chapter 2, the TRA model applied to mental health literacy suggests that teachers with good knowledge, high self-efficacy and low stigma —those who believe they have the capacity to support students struggling with mental health challenges—are more likely to attempt supportive behaviours compared with teachers who do not believe that supportive behaviours will promote positive outcomes. For this reason, quantitative measures of mental health literacy, stigma, and teaching self-efficacy were included in the program evaluation.

Qualitative online forum data sources. Throughout the course, pre-service teachers engaged in weekly online peer-to-peer group discussions and reflection questions. Toward the end of the course, participants shared experiences related to their perceived self-efficacy. These responses were reviewed to better understand salient factors that contribute to developing strong teaching self-efficacy. Participants also provided feedback on the most valuable aspects of the course and suggestions for improvement. These responses informed decisions regarding course

content and delivery and also highlighted ways in which the program—and others like it—could be improved. Further details about participant selection can be found in the *Qualitative Data Sampling Procedure* section below.

In qualitative analysis, it is important to consider how the evaluators' worldview may impact data interpretation and construction of meaning. Cultural and experiential backgrounds involve differences in biases, values, and ideologies (Chenail, 2011), and these implicit biases affect theme development and communication of themes within qualitative research (Fields & Kafai, 2009). For example, determining which categories of analysis to explore (and which to leave out) shapes the direction and conclusions of the program evaluation. What is salient and important to one evaluator may differ from another. In this evaluation, the program evaluator was trained as a school and child psychologist and actively worked with children, families, and educators within local schools and community mental health settings. These professional experiences allowed for a deeper understanding of the realities of supporting student mental health within a school environment, including severity and range of student mental health challenges and the effects of limited resources, competing demands, and trans-disciplinary collaboration.

Notably, the evaluator was also a Teaching Assistant (TA) for the course during the year it was evaluated. Although it may seem that an individual involved in the course administration would have a positive bias towards the program's success, it is worth noting that the goal of a program evaluation is to evaluate outcomes and provide recommendations to improve the program and others like it. Consequently, biased results are less likely to lead to meaningful insights and recommendations; therefore, an effective evaluator is invested in an accurate evaluation of the program content, delivery, and outcomes. Additionally, acting in the role of TA

increased familiarity with course content and its delivery. The TAs were responsible for supporting participants' understanding of and engagement with course material by addressing questions about course content and delivery. This helped deepen the evaluator's understanding of participant experiences.

Participants

Mental Health Literacy: Supporting Social–Emotional Development was a mandatory course for pre-service teachers in the second year of a Bachelor of Education in a large central Canadian university (n = 275). All participants completed eight-weeks of teaching practicum experiences in the first year of their program, six weeks of teaching practicum immediately before and after taking this course, and a three-week alternative learning experience between weeks five and six of the course. Of the 275 students enrolled in the course, 269 participated in both the pre- and post-tests. Of the participants who completed both the pre- and post- tests, approximately 75% identified as female, which accurately reflects the general composition of in-service teachers in Ontario (OCT, 2018). A small percentage of participants had completed graduate studies before beginning the Bachelor of Education program (Master's degree, $n = 7$, 2.6%; Doctorate, n = 1, 0.38%), and the remainder had completed an undergraduate degree ($n = 257$). Participants represented diverse academic backgrounds, of which the most common was Arts and Humanities ($n = 97$, 36.6%).

Over 30% of participants reported having no previous experience learning about mental health or mental illness (n = 82, 30.9%). Almost 80% of participants with previous learning experience received it through a graduate or undergraduate course (n = 146, 78%). The remaining participants reported they had been taught by a mental health professional through formal programs (i.e. Mental Health First Aid), educational workshops/seminars, or mental

health interventions (provided by professionals within different contexts; n = 41, 15%). Further

demographic details are listed in Table 2.

Table 2: Demographic Information (N=262)		
Variable	N	Percentage
Gender		
Female	200	75.47%
Male	62	23.4%
Prefer not to say / Other	4	1.5%
Transgender	1	0.38%
Previous Degree		
Arts, Humanities (Eng., Hist., Phil, French., Music etc.)	112	41.6%
Social Science (Psyc., Social Work, Geo, Soci., Anthro., Econ., Early Childhood Ed., Family studies etc.)	80	29.8%
Science (Bio., Chem., Phys., Math)	34	12.6%
Heath Science (Kinesiology, Nursing, Medicine etc.)	23	8.6%
Religion / Divinity / Thanatology	8	3%
Engineering	2	0.7%
Multiple / Combined	10	3.7%
Degree Obtained		
Undergraduate	258	95.9%
Masters	7	2.6%
PhD	1	0.40%
Previous Experience Learning About MH and MI		
Yes	187	69.5%
No	82	30.5%
Type of Previous Learning		
Undergraduate or Graduate Course	146	54.3%
Training or Learning by Mental Health Professional	41	15.2%
No Previous Formal Learning	82	30.5%

Qualitative Data Sampling Procedure. Participants were selected for qualitative data

analysis using a random number generator. Participant were listed and numbered within

Microsoft Excel and the random number generator function selected participants at random.

Responses of selected participants were downloaded and de-identified. Initially, two pre-service

teachers from each group were randomly selected, for a total of 24 participants. Participants'

discussion forum posts were downloaded, reviewed, and initial content topics were organized

into a saturation grid. A further 8 participants were selected before 5 sequential participant

responses offered no new content topics, indicating that the data had reached saturation (Brod, et al., 2009). A descriptive coding scheme based on suggestions from Biasutti (2017) identified significant themes (discussed further below).

Measures

Participants were invited to complete the pre-test measure two weeks before the course began. Participation in the pre and post survey counted toward participation grades within the course. The pre-test included demographic questions about gender, educational cohort, previous degrees, and experience with mental health, as well as 85 quantitative items evaluating constructs of interest subsequently duplicated in the post-test. Qualitative data sources included the content of participants' online reflections, peer-to-peer discussion, and final course feedback.

Pre- and post-surveys were distributed via Qualtrics (https://www.qualtrics.com/). Participants received a unique log-in link for the pre-survey via email three weeks prior to the course beginning. They received another unique log-in for the post-survey following the completion of the final week of the course. In both cases, participants had two weeks to complete the survey. Data were exported into IBM Statistical Package for the Social Sciences for Windows (SPSS, Version 25.0.).

Mental Health Literacy Questionnaire for Education (MHLQ). Participants completed the *Mental Health Literacy Questionnaire for Education*, a 47-item, 5-point Likert scale (strongly disagree to strongly agree) questionnaire designed specifically with pre-service teachers in mind (Rodger et al., *submitted*; Appendix C). MHLQ was identified as a suitable measure of mental health literacy and appropriate for use within pre-service teacher education due to the good internal consistency with individual items and Cronbach's alpha scores ranging from .88 to .96 (Rodger et al., *submitted*). A factor analysis of the recently developed mental

health literacy Questionnaire for Education revealed a four-factor model that explained 55.2% of the variance (Hatcher & Rodger, *in preparation*). The four factors were labelled as follows: *Teaching and Learning in a Mentally Healthy Classroom*, 26 items (α = .941); *Expectancies*, 6 items (α = .959); *Professional Relational Skills*, 8 items (α = .884); and finally, *Role Clarity*, 4 items (α = .924). The factors aligned with important elements of pre-service teacher education. The first factor, Teaching and Learning in a Mentally Healthy Classroom, refers to a teachers' belief that they have the ability and knowledge required to work with children who have diverse mental health needs. The Expectancies factor encompasses teachers' expectations that they will teach diverse students with behavioural, emotional, or learning challenges. The Professional Relational Skills factor includes items that evaluate the degree to which teachers believe they can form healthy relationships and manage conflict with others, such as students, parents, colleagues, administration, and so forth. Lastly, the Role Clarity factor encompasses items that inquire about the degree to which teachers believe that their role includes a professional responsibility to promote mental health and address student needs (Rodger et al., *submitted*). This factor analysis suggests that key beliefs (i.e. about teaching knowledge/skills, future expectations, relational ability, and professional role clarity) are involved in the effective teaching of students with diverse mental health needs. These themes reflect both important considerations within the pre-service education context (Weston et al., 2008) and important components of behavioural intention as illustrated by the Theory of Reasoned Action (Fishbien and Azjien, 2010).

Teacher Inclusive Educational Practice (TEIP). The TEIP is an 18-item, 6-point Likert scale (strongly disagree to strongly agree) that measures teachers' self-efficacy in supporting students with diverse needs (Sharma et al., 2012, Appendix E). It was designed to evaluate individual teacher factors that contribute to the successful creation of an inclusive classroom

environment. Sharma and colleagues developed this scale based on a sample of 607 pre-service teachers from four countries—Canada, Australia, India, and Hong Kong. Factor analysis of responses revealed three factors that collectively explained 54 percent of variance: *Efficacy to Use Inclusive Instructions* (strategies that promote all learners), *Efficacy in Collaboration* (one's perceptions of working with parents and other professionals), and *Efficacy in Managing Behaviour* (self-perceptions of dealing with challenging behaviours). Cronbach's alphas revealed internal consistency reliability of the three factors as 0.93, 0.85 and 0.85, respectively, and 0.89 for the total scale (Sharma et al., 2011).

The TEIP questionnaire was originally developed to evaluate inclusive practices for students with disabilities, a broad umbrella term that can include a host of mental, physical, or social-emotional challenges. Importantly, mental health problems have not historically been considered an exceptionality in the same way as developmental and physical disabilities. Our present study sought to explore inclusive practices specifically for students with mental health challenges, which can include disturbances in mental, emotional, social, or behavioural functioning. Consequently, in questionnaire items that asked about "students with disabilities", the word "disabilities" was replaced with "mental health problems" to better reflect the skills and attitudes under evaluation. As a result, the original measures of internal consistency might not apply.

In the present study, one item from the TEIP was unintentionally excluded from participant surveys. A mean item replacement was conducted in which the missing item score was replaced with each participant's average score of the other five items within the subscale to which the missing item belonged.

Opening Minds Stigma Scale for Health Care Providers (OMS). The OMS for Health

Care Providers is a 15-item, 5-point Likert (strongly disagree to strongly agree) scale measure

developed to evaluate anti-stigma attitudes in health care provider populations, which includes

nursing students, medical students, social workers, recreational therapists, and other caring

professionals (Modgill et al., 2014; Appendix E). At the time of this study, there is no acceptable

measure of pre-service teacher or in-service teacher attitudes toward mental health stigma.

Therefore, the Opening Minds Stigma Scale was identified as a suitable measure due to the

similarity of the role and responsibilities of health care professionals and teachers in supporting

the mental health of individuals in their care. Both roles experience frequent care-taking

responsibilities for groups of individuals, many of whom present with mental health challenges.

For the purpose of this evaluation, wording within the scale was modified to replace the term

"patient" with "student." As such, findings within the original measures of internal consistency

may not apply.

Although the original scale included 20 items (Modgill et al., 2014), Modgill and

colleagues revised the factor structure and the responsiveness of the scale in a larger, more

representative sample of health care providers (n = 1,523). In this study, health care providers

included medical doctors, medical students, nurses, allied health professionals, and social

workers. Modgill and colleagues' factor analysis favored a three-factor structure accounting for

45.3 percent of the variance using 15 of 20 items. The three factors included: *Social Distance*

(six items describing comfort with working or living in proximity to individuals with mental

illnesses), *Attitude* (six items measuring attitudes of mental health professionals toward people

with mental illnesses), and *Disclosure and Help Seeking* (four items measuring comfort with

disclosing and seeking help for personal mental health challenges). Modgill and colleagues

described the overall internal consistency for the 15-item scale (alpha = 0.78) and three subscales (alpha = 0.67 to 0.68) as acceptable. Regarding subscale responsiveness, Social Distance has the lowest subscale responsiveness rating (SRM<0.50) whereas Attitude (SRM<0.91) and Disclosure and Help-Seeking (SRM<0.68) were stronger. This suggests that the OMH-HC has overall satisfactory responsiveness but is most effective in detecting changes in attitudes following an intervention. Modgill and colleagues (2014) also reported that the sub-factors displayed negative skewness (Skewness and Kurtosis, respectively, total: 0.06, 2.93; Attitude: 0.16, 2.71; Disclosure and Help-seeking: 0.13, 2.71; Social Distance: 0.41, 3.38) with Attitude being the most normally distributed. This indicates that there was a tendency for participants to respond affirmatively on the subfactors.

Data Analysis

Quantitative data from pre- and post-tests was exported into IBMs Statistical Package for the Social Sciences (SPSS) and items were reverse coded as appropriate. To address missing data values, mean item scores were calculated for each overall measure and subfactor in which participants whose responses contained greater than 20% missing data affecting a construct of interest were excluded from that analysis. Qualitative data were gathered from participant responses within the online forum. Program evaluation answered three key questions:

1. **Program outcomes:** Was there a meaningful shift in constructs important to creating and leading a mentally healthy classroom following a 10-week, 20-hour online course?

2. **Insights and improvements:** What insights emerged from evaluation of participant feedback regarding relevance and value of course content and delivery; further, how could the course be improved?

3. **Teaching self-efficacy themes:** What did pre-service teachers report about experiences that increased their teaching self-efficacy?

1. Program outcomes. This study explored changes in participants' self-reported understanding of mental health literacy, stigma, and self-efficacy for teaching students with mental health challenges following a 10-week online mental health literacy course. Program outcomes were evaluated with the *Mental Health Literacy Questionnaire for Education* (Rodger, et al. *in process*), *the Opening Minds (Stigma) Scale* (Modgill et al., 2014), and the *Teacher Efficacy for Inclusive Practice* (TEIP; Sharma et al., 2011). Changes in responses on pre-post measures were assessed through a series of five multivariate analyses of variance (MANOVA) with an examination of canonical variables and univariate findings. Changes over time were measured as aggregates of all dimensions of interests and related subscales.

Participants also completed multiple choice quizzes, skill demonstration videos, and engaged in the online peer discussion forum. In addition to the pre-post quantitative measures, the course management software offered insight about some user data such as page visits and resources downloaded. These descriptive data sources provide further information about patterns of engagement with course material. Further, participants were invited to

Based on results reported in previous mental health literacy interventions (Kutcher & Wei, 2014; Kutcher, Wei & Morgan, 2015; Kutcher et al., 2016; Mcluckie, Kutcher, Wei & Weaver, 2014; Milin et al., 2016), this study hypothesized that participants would experience a significant improvement on measures of mental health literacy, stigma, and self-efficacy across the 10-week course. Previous research has suggested that the most significant shifts would occur in knowledge domains with a more modest, yet significant, shifts in measures of self-efficacy and stigma (Kutcher et al., 2016; Mcluckie, Kutcher, Wei & Weaver, 2014; Milin et al., 2016).

In previous research on teachers and other caring professionals has reported modest shifts in stigma as influenced by floor effects in which most participates report few negative attitudes toward mental illness (Kutcher et a., 2016; Modgill et al., 2012).

    2. Insights and improvements. This course evaluation explored feedback from participants to better understand their experience and beliefs about the relevance, value, and limitations of the course. It sought to identify insights from participant feedback regarding the relevance and value of course content and delivery (evaluation question 3). Participant feedback highlighted the most and least helpful aspects of course content and provided important insights into their experience with the online format. During the final week of the course, participants shared feedback on (a) the most important or valuable aspect of the course overall and (b) elements of the course that could be changed to improve the course in the future. A qualitative review of participants' feedback about the course was used to better understand the pre-service teachers' experiences so that the course could be improved for future years. The qualitative review was based on suggestions from Biasutti (2017) discussed further below.

    3. Teaching self-efficacy themes. Using qualitative data drawn from participant feedback provided in Week 9 of the course, this program evaluation used a qualitative approach informed by thematic coding scheme suggestions from Biasutti (2017) to identify major themes within participant shared experiences. This process involved five stages originally outlined by McLeox (1994, p. 85): (1) Immersion: the program evaluator carefully reviews participant forum responses, incorporating explicit and implicit meanings; (2) Categorization: the evaluator systematically works through the data, assigns coding categories, and/or identifies meanings within the small group forum discussions; (3) Phenomenological reduction: the evaluator questions the meaning of the developed categories and considers other ways of analyzing the

data; (4) Triangulation: the evaluator sorts through categories and explores reoccurring categories to understand which ones are more or less significant, invalid, or mistaken; (5) Interpretation: the evaluator assigns a sense of meaning to data while considering the wider contextual perspective, often relating to established theory to explicate the findings of the study.

Notably, the researcher was also a Teaching Assistant (TA) for the course. This allowed the researcher to write real-time observation memos about re-occurring themes within and between groups in the online forums.

Ethics Approval: Program Evaluation

Using guidelines derived from the Non-Medical and Health Sciences Research Ethics Boards, ethics officials indicated that this research falls under the category of program evaluation and provided the researchers with a 'Letter of Exception' (See Appendix B). Criteria used to classify this project as a program evaluation rather than a research study included the following determinations: the *Mental Health Literacy: Supporting Social–Emotional Development* does not test a hypothesis or theory; there was no comparison of multiple interventions or additional burdens to participants; and, finally, the course was evaluated solely for the purpose of improving the content, structure, and delivery of the course. Thus, this program evaluation was deemed a quality improvement activity for the purpose of enhancing course design and delivery.

Summary

In summary, Chapter 4 has reviewed the methods and process of the evaluation of *Mental Health Literacy: Supporting Social–Emotional Development*. It reviewed key aspects of course content and delivery, including important pedagogical decisions that encourage depth of learning and greater engagement within an online learning environment. It then outlined the research and rationale supporting the program evaluation design and the population of pre-service teachers

enrolled in the course. Finally, it reviewed the measures and methods of data analysis used to evaluate the effectiveness of this program. Chapter 5 presents the results from both qualitative and quantitative data associated with program outcomes, participant experiences, and course feedback. Lastly, Chapter 6 embeds important findings in the context of pre-service education, online post-secondary learning environments, and models of behavioural change before summarizing lessons learned, kernels of effective practice, and specific suggestions for course improvement.

Chapter 5: Results

Improving teachers' ability to promote classroom wellness and respond to student mental health challenges is an important step toward creating mentally healthy schools for all Canadian children. In the 2016-2017 academic year, *Mental Health Literacy: Supporting Social–Emotional Development*, was added as a mandatory component of a large Canadian university's teacher education program. These results provide a framework for understanding the ways in which the online course contributed to growth in mental health literacy for pre-service teachers and how it could be improved.

This program evaluation reviews the outcomes of, *Mental Health Literacy: Supporting Social–Emotional Development,* a 10-week, 20-hour, online mental health course delivered to 275 teacher education students simultaneously. The course provided flexible access to multi-media content, discussion forums, and ongoing student profile narratives. It was designed to provide pre-service teachers with competencies needed to effectively create and maintain mentally healthy classrooms. Evidence-based information, tools and strategies targeting school-based mental health were provided. Learners engaged with peers in online discussions and applied new ways of understanding to student profile narratives and skill demonstration videos.

Course outcomes were explored using a mixed-methods program evaluation design. Participants completed quantitative measures of mental health literacy, stigma, and teaching self-efficacy before and after the course. They also used the online forum to dialogue about course content, share professional experiences, and provide feedback on the course. Lastly, participants provided further course feedback as part of the standard formal course evaluation conducted by the host university. This program evaluation draws on these findings to better understand how

effective the course was, the reasons behind its effectiveness, and what can be done to improve it. Results are organized by three areas of investigation:

1. **Program outcomes:** Was there a meaningful shift in constructs important to creating and leading a mentally healthy classroom following a 10-week, 20-hour online course? Specifically, did pre-service teachers report significant changes in mental health literacy, stigma toward individuals with mental illnesses, and self-efficacy related to teaching students with emotional or behavioural challenges?

2. **Insights and improvements:** What did participants have to say about the course in the formal course evaluation? What insights emerge from evaluation of participant feedback regarding relevance and value of course content and delivery?

3. **Teaching self-efficacy themes:** What did pre-service teachers have to say about experiences that contributed to a strong sense of self-efficacy, and what can be learned from the ways in which these themes were, or were not, present in the course?

Participants and Course Engagement

Of the 275 students enrolled in the course, a total of 269 (97.8%) second year pre-service teachers completed both the pre and posttests. Participant demographic data was discussed in Chapter 3 and summarized in Table 1. A review of site traffic data on the online learning platform suggested that, on average, participants visited the course site approximately eight times a week. There was a reduction in the number of site visits while participants were engaged in field experiences and school holidays between modules 5 and 6; however, with an average of approximately two visits per week per user during this time, most participants accessed the course content at least once during the break *(n = 262, 92.6%)*. Participants continued to access the course resources and materials for the two months following the course completion with an

average of 237 total site visits per week. During the third month after completion of the course there was a sharp drop off in site visits (falling to an average of 17 visits per week).

Participants' final grades were made up of weighted scores of performances on weekly quizzes, participation in online group discussion, and skill demonstration videos. There was a high overall average grade for this course *(M* = 89.6%). Participants generally performed well on weekly quizzes (average grade of 86.8%) and were highly participatory on the online forums (average grade of 91.7%). Participants completed two brief video assignments in which they demonstrated the *satisfactory* (as defined in the rubric found in the course outline, Appendix A) application of foundational support skills, such as appropriately approaching and offering support to a student who is struggling with mental health challenges (average grade of 75%).

Many online tools and resources were provided. This included both *core content,* that was embedded within the course lessons, and *supplementary resources,* that were optional readings accessible through a small online library. Resources that were accessed (i.e. opened and/or downloaded) with the greatest frequency included core content articles on resilience, positive mental health, the power of teachers in school mental health, and tips from experienced teachers to new professionals. Optional supplemental resources focused on student issues including poverty, parental substance abuse, immigration, islamophobia, and criminal justice. The most highly accessed resources within this library were on topics of refugee status, islamophobia, and indigenous culture, with approximately half of participants accessing them one or more times (52%). The topic that was accessed the fewest number of times was parental substance abuse which was accessed by one participant.

What follows is a review of program outcomes related to quantitative self-report measures of mental health literacy, stigma, and teaching self-efficacy.

Table 3: Descriptive Statistics Mental Health Literacy, Stigma, and Self-Efficacy

Outcome	Pretest		Posttest			Cronbach's alpha
	M	*SD*	*M*	*SD*	*n*	
MHLQ Overall	4.15	.434	4.42	.453	257	.94
Healthy Classroom	3.92	.541	4.30	.525	257	.94
Expectations	4.51	.610	4.57	.602	257	.95
Professional Relationships	4.31	.546	4.51	.500	257	.88
Role Clarity	4.79	.454	4.85	.455	257	.92
Stigma	2.00	.521	1.93	.559	257	.80
Attitudes	1.89	.571	1.82	.675	257	.76
Disclosure & Help Seeking	2.65	.802	2.52	.782	257	.71
Social Distance	1.64	.590	1.56	.560	257	.78
TEIP Overall	4.85	.482	4.97	.589	260	.89
Managing Behaviour	4.63	.555	4.78	.641	260	.77
Collaboration	4.83	.605	4.98	.648	260	.76
Inclusive Instruction	4.92	.509	5.03	.603	260	.88

Program Outcomes

In reviewing the outcomes related to this course, three measures were used to evaluate shifts in participants' perceived ability to create and lead a mentally healthy classroom: Mental Health Literacy Questionnaire for Education (Rodger et al., *submitted)*; Opening Minds Stigma Scale (OMS, Modgill et al, 2014); and the Teacher Self-Efficacy for Inclusive Education (TEIP, Sharma et al., 2011). Descriptive information regarding pre- and post-test scores on the measures of interest can be found in Table 3. All scales were found to have an acceptable level of internal consistency, as determined by a Cronbach's alpha of .94, .80 .89 respectively.

A repeated measures MANOVA was conducted to evaluate the canonical variate

comprised of: mental health literacy, teaching self-efficacy, and stigma toward mental illness.

There was a significant effect of time on the canonical variate, $F(3, 257) = 27.6, p < .0005,$

partial $\eta^2 = .244$. Further inspection of the univariate within-subject effects indicated significant

changes in measures of mental health literacy, $F(1, 259) = 83.1, p < .0005,$ partial $\eta^2 = .243,$

stigma toward mental illness, $F(1, 259) = .691, p = .015,$ partial $\eta^2 = .022,$ and self-efficacy for

teaching student with mental health challenges $F(1, 259) = 11, p = .001,$ partial $\eta^2 = .041.$

Partial eta-squared effect sizes range from 0 and 1 and, although these definitions are not

universally accepted, description of effect sizes have been identified as small ($<.01$), medium

($.06$), and large (0.14) (Cohen, Cohen, West, & Aiken, 2003). By this guide, mental health

literacy was found to have a large effect size, stigma had a small effect size, and teaching self-

efficacy had a medium effect size overall. They each contributed significantly to the canonical

variate, with the MHLQ contributing most significantly. Further results are in Table 4.

Table 4: Multivariate and Univariate Analysis Results

Analysis	Effect	df	F	p	Partial eta-squared
Multivariate	Time Overall	3, 257	27.6	<.0005***	.244
Univariate	Time MHLQ	1, 259	83.1	<.0005***	.243
	Time TEIP	1, 259	11.0	.001**	.041
	Time OMS	1, 259	.691	.015*	.022
Multivariate	Time X Previous Learning	6, 512	1.45	.194	.017
Multivariate	Time MHLQ Total	4, 253	30.94	<.0005***	.329
Univariate	Time Healthy Classroom	1, 256	117	<.0005***	.314
	Time Expectations	1, 256	2.18	.141	.008
	Time Professional Relationships	1, 256	34.7	<.0005***	.119
	Time Role clarity	1, 256	3.78	.053	.015
Multivariate	Time OMS Total	3, 254	4.12	.007*	.046

Univariate	Time Attitudes	1, 256	3.26	.072	.013
	Time Disclosure/Help Seeking	1, 256	8.81	.003**	.033
	Time Social Distance	1, 256	6.76	.026*	.026
Multivariate	Time TEIP Total	4, 257	4.90	.003**	.054
Univariate	Time Managing Behaviour	1, 259	13.0	<.0005***	.048
	Time Collaboration	1, 259	12.0	.001**	.044
	Time Inclusive Practice	1, 259	9.18	.003**	.034

*$p < .05$, ** $p < .005$, *** $p < .0005$

Effects of Previous Learning. A second multivariate analysis of variance was used to evaluate the effects of previous learning and time on changes on mental health literacy, stigma, and self-efficacy. Participants identified if they had previous experience learning about mental health and mental illness, and if so, the type of experience (i.e. formal course, professional training, or other). Approximately 30% of participants identified as having no previous formal learning prior to taking this course ($n = 82$). Over 50% of participants received information about mental health through a graduate or undergraduate level course ($n = 146$) and just over 15% had been trained by a mental health professional in another capacity (i.e. mental health first aid training or mental health workshop; n = 41). The interaction between the group factor and the within-subject time factor was not statistically significant, $F(6, 512) = 1.46$; $p = .194$, suggesting that previous learning was not significantly related to changes found the canonical variate following the course (see Table 4).

Mental Health Literacy. Self-reported levels of mental health literacy were assessed with the 45-item *Mental Health Literacy Questionnaire for Educators* (Rodger et al., *submitted*). A multivariate analysis was conducted on the subscales of the MHLQ: *Teaching and Leading a Mentally Healthy Classroom*, *Expectations*, *Professional Relationships*, and *Role Clarity*. All subscales were found to have an acceptable level of internal consistency, as determined by

Cronbach's alpha of .94, .95, .88, and .92 respectively (George & Mallery 2003). Further

descriptive data such as means and standard deviations can be found in Table 3. Analysis found

significant increases in self-reported scores for two of the four subfactors: Teaching and Leading

a Mentally Healthy Classroom, $F(1, 256) = 117.1$, $p < .0005$; partial η2 = .314; and Professional

Relationships, $F(1, 256) = 34.71$, $p < .0005$; partial η2 = .119. The changes in Role Clarity, $F(1,$

$256) = 3.78$, $p = .053$; and Expectations were not significant, $F(1, 256) = 2.18$ $p = .141$.

Stigma. Negative attitudes toward mental illnesses were assessed with the 15-item

Opening Minds Stigma Scale (OMS; Modgill et al, 2014). Frequency of responses indicated that

on 7 of the 15 items on the OMS more than 50% of participants choose the lowest available

answer (i.e. no stigmatizing attitudes). There were four additional items on which 25% of

participants chose the lowest available answer. A floor effect occurs when responses display a

restricted range, creating small variance or standard deviation (Allen, 2017). Analysis indicated a

non-normative distribution of responses in that participants largely reported low scores on stigma

before beginning the course. Despite this, as indicated above, results indicated a small but

significant difference for the effect of time on levels of overall stigma, $F(1, 259) = 6.35$, $p =$

$.012$, partial η2 = .024.

A further multivariate analysis was conducted on the subscales of the: *Attitudes,*

Disclosure and Help Seeking, and *Social Distance.* All subscales were found to have an

acceptable level of internal consistency, as determined by Cronbach's alpha of .76, .71, .78

respectively. Further descriptive data such as means and standard deviation can be found in

Table 3. Analysis found significant increases in self-reported scores for two of the four

subscales: Disclosure and Help Seeking, $F(1, 256) = 8.81$, $p < .003$; partial $η^2 = .033$, and Social

Distance, $F(1, 256) = 6.76$, $p = .026$; partial $\eta^2 = .026$. The change in subfactor Attitudes was not significant, $F(1, 256) = 3.26$, $p = .072$.

Self-efficacy. Self-efficacy related to teaching students with emotional or behavioural challenges was measured with the 18-item *Teacher Efficacy for Inclusive Practice* (TEIP; Sharma et al., 2011). All subscales were found to have an acceptable level of internal consistency, as determined by Cronbach's alpha of .77, .76, and .77 respectively. Further descriptive data such as means and standard deviations can be found in Table 3. A multivariate analysis was conducted on the three subscales of the TEIP included *Managing Behaviour*, *Collaboration*, and *Inclusive Education*. Analysis found significant increases in self-reported scores on all three subscales: Managing Behaviour, $F(1, 259) = 12.98$, $p < .0005$; partial $\eta^2 = .048$; Collaboration, $F(1, 259) = 11.95$, $p = .001$; partial $\eta^2 = .044$; and Inclusive Education, $F(1, 259) = 9.14$, $p = .003$; partial $\eta^2 = .034$.

Overall, quantitative findings suggest that the course contributed to a meaningful shift in teachers' ability to contribute effectively to supporting school mental health, as identified by the significant shifts in the canonical variate. Moreover, further analysis suggested that there were meaningful shifts in all three measures of key outcomes (i.e. mental health literacy, stigma toward mental illness, and self-efficacy for teaching students with emotional and behavioural challenges). Evaluation of univariate findings revealed important variances on sub scale measures. For example, although overall levels of mental health literacy improved, there were limited changes in participants self-responses on measures of role clarity and professional expectations following the course. This was likely influenced by the highly affirmative response rates before beginning the course, which left little room for improvement. Similarly, meaningful changes were identified in overall levels of stigma, but only small and nonsignificant changes

were found in measures of attitudes toward others who have mental illnesses, which were highly endorsed on the pre-test (i.e. few stigmatizing attitudes). The most significant shifts within the measure of stigma was found items of the Help-Seeking and Disclosure subscale, suggesting that there was a meaningful reduction in the self-stigma related to mental health challenges and an increased likelihood of participants seeking help for themselves when faced with mental health challenges.

These quantitative results provide important findings related to key course outcomes. The following sections explore qualitative insights and findings from participants posts within the online forum. Insights from participant feedback involved identifying the most valuable aspects of the course and the ways in which it could be improved.

Insights and Improvements

Participants provided direct feedback about the course in two ways. A total of 92 participants responded to the formal course evaluation survey distributed by the host university (response ratio 33.5%). The course was rated highly as an overall learning experience ($M = 5.64$ of a total possible sore of 7, $SD = 1.25$). Additionally, during the final week of the course participants were asked to provide feedback on the most valuable aspects of the course, as well as elements that could be improved (n = 251, response ratio 91%). A qualitative analysis of participants' feedback was used to better understand the most and least valuable aspects of the course, and to situate findings within the experiences of those who are impacted by it the most, pre-service teachers.

A total of 71 participant responses were reviewed in the qualitative analysis before theoretical saturation had been reached. A qualitative analysis identified five key themes that illustrate what participants identified as the most valuable aspects of the course.

Value 1: Understanding how mental health, stress and resiliency impacts everyone

Value 2: Identifying my own health as a priority

Value 3: Providing evidence-based knowledge and resources that are valuable

to my teaching career

Value 4: Clarifying my roles and responsibilities related to student mental health

Value 5: Opportunities to apply my learning to "real-life" situations

In addition to identifying the most valuable aspects of the course, feedback was reviewed

and organized into three broad categories that highlight the ways in which it could be improved.

Improvement 1: Person-to-person learning opportunities

Improvement 2: Increasing value of online forum discussions

Improvement 3: Requests for additional content topics

Value 1: Understanding how mental health, stress and resiliency impacts everyone.
When asked about the most valuable aspects of the course participants repeatedly highlighted the

relevance of the course content and the necessity for teachers to have awareness of how mental

health impacts learning and development. This feedback was frequently framed around the

benefits for students, "Mental health is important for everyone … Students will have better

learning experiences if teachers promote healthy wellbeing … teachers need to continue to learn

about resources for mental health." But participants also provided similar recognition of the

ways in which mental health impacts everyone including students, staff, teachers, and parents.

"I think the most important thing that I've learned during this course is not only

to address and promote the wellbeing of students, but to keep the mental health and

wellbeing of teachers and administration in mind."

Participants also drew connections between mental health literacy and inclusive education

practices through descriptions of the way in which the course information was applicable to all students in addition to those who have been identified as struggling with mental illness.

"The notion that mental health is actually an imperative we should keep in mind every day when we're teaching. It's not something that only comes into play during the most extreme cases of students needing help; all classroom practices should be designed to promote good mental health."

Notably, the modules that addressed stress and resilience (week 4 and week 7) were repeatedly identified as valuable and useful aspects of the course. Comments described how stress was experienced by students and teachers alike. Participants reported that they had not yet been taught about the different types of stress (i.e. manageable and acute versus chronic and overwhelming) within other formal learning experiences, suggesting that this topic had not been covered in other teacher education courses.

"I think one of the most valuable things I learned in this course was about stress, the effects stress can have on a person and how to reduce the stress response. Since stress is so common among students and teachers daily, I really valued having an entire week designated to stress. I also didn't really know much about resilience prior to this course, so I am grateful to have learned about it through this course."

Participants also wrote about deepening their understanding of the connection between stress ad resilience (week 7). Comments indicated that participants had developed an understanding that exposure to tolerable levels of stress was important for the development of resilience, and that part of the teaching role was to guide and support students through these experiences, as opposed to sheltering students from stressors and challenges:

"One of the most important things I have learned in this course is the importance of building resiliency and grit in our students. As we have learned, creating a healthy learning environment for our students does not mean removing all stress from their lives, as that is not possible, and certain types of stress can actually prove beneficial. Rather, we must teach our students how to cope with daily stress, as that will follow them throughout their lives."

Overall, participant feedback highlighted how the information presented in the course was both valuable and necessary the teaching profession, and that all teachers would benefit from a foundation of basic mental health literacy. "I am so glad this course is now required. I think it is important that teachers are educated on mental health."

Value 2: Recognizing my own mental health as a priority. In addition to having a good understanding of mental health in support of others, participants highlighted the value in developing a deeper appreciation for their own mental health and health-promoting practices. They identified that the course served as a catalyst for greater consideration of their own needs, "[Throughout this course] I have done plenty of self-reflection and identified strategies and practices that I believe will help me maintain my stress levels and seek support when necessary." This is especially important given the occupational stress identified within the teaching profession and the high rates of reported burnout and isolation (Johnson et al., 2005; Teaching and Learning International Survey, 2013; Ellis & Riel, 2014). Participants recognized how greater understanding of their own mental health was especially important within the context of being a teacher.

"One valuable thing I learned is how to deal with our own mental health and how to deal with the stresses that may come with being a teacher. We must remember that we are important too and our mental health matters."

In Canada, 25% of teachers will leave the profession within their first five years of teaching, and stressful working conditions have been found to be one of the most frequently cited reasons for leaving (Kutsyuruba, Godden, & Tregunna, 2014; McIntyre, 2006). Participant responses reflected the understanding that poor mental health and job-related stressors can lead to problems with productivity, job satisfaction, performance, and absenteeism (WHO, 2010). Participants described how learning about prioritizing their own mental health would lead to positive outcomes for both self and others, in addition to being important to sustaining a long, healthy teaching career.

"The most important thing I learned in this course was how significant my own mental health is; not only to me but my colleagues, family and students. When I'm well and modelling healthy behaviour, I'm influencing and projecting this to my students. This would help me achieve a long and positive life and career."

Participant responses also reflected a clear understanding of ways that teacher's mental health and wellness impacted their students. There is research evidence that suggests a strong connection between teachers' level of emotional exhaustion and their students' academic achievement and school satisfaction (Ares & Morin, 2016). Teachers who reported higher emotional exhaustion were more likely to have students with lower academic achievement and school satisfaction compared to students of teachers who did not report high levels of exhaustion even after controlling for relevant student demographic factors (Ares & Morin, 2016).

Participant reponses reflected the understanding that they are most capable as teachers when they are also mentally well.

> "One important thing I learned in this class was to take care of yourself! If you are constantly stressing and worried about your students, the curriculum etc. you will not be fully healthy to be your best self in the classroom. It is important to learn to balance your personal life and work."

There was also a strong recognition of the value of a dual curriculum approach (discussed in Chapter 2) in which participants learned about applying mental health strategies to both themselves *and* their students. Participants recognized that the health of students, teachers, and the community were intertwined:

> "I rarely thought about the importance of our mental health as well, and that we as educators cannot be at our greatest potential if we are not taking care of ourselves. I think it was imperative to understand the need for our own self-care, and how to create a healthy boundary in order to best help our students… I loved learning how to teach resilience to better help both ourselves and our students which will hopefully have an effect on the school and community as a whole."

Lastly, one participant wrote candidly about his or her desire to see the mental health of pre-service teachers addressed more directly within the course. It was acknowledged that the course emphasized the benefits of both teacher and student mental health, but there was a lack of explicit discussion of the mental health of pre-service teachers. As graduate students, pre-service teachers face a host of stressors, and have been identified as at a higher risk for mental health problems compared to the general public (Barreira, Masilico & Bolotnyy, 2018).

"Mental health affects us as students in university- I often felt that we were the ones left out of the mental health discussions - we talked about how we will help our future students/ students on practicum, and ways to help our future self's in a teaching positioning. But we never talked about us as teacher candidates. The course content revealed to me how much the university student population is affected and going through our own mental health struggles."

This reflected valuable considerations for a course focused on mental health and identified a relevant area to more explicitly address in the future.

*V*alue 3: Mental health knowledge, skills, and resources make me a better teacher. In addition to broadly writing about the benefits of mental health for everyone, participants specifically highlighted the value of greater mental health knowledge and resources related to school-based, evidence-informed practices, research, strategies, and tools. As emerging professionals who face a gap of time between learning and applying this content as an independent professional, participants identified the value of downloadable and sharable resources available for future use.

"The most valuable thing I've gotten out of this course is all of the supports and resources we've received week to week. Seeing all the research about mental health and student success will be super practical for us when we're out on practicum and in our careers as teachers."

Some participants wrote directly about specific resources they highly valued, such as a table that described possible early-warning warning signs that a student may need additional support and relevant actionable strategies; while others wrote about how greater knowledge

helped them demystify mental health and increase their comfort with having classroom discussions on this sensitive topic.

"The most important thing that I learned through this course was the importance of not shying away from discussing mental health with your students. It's important to regularly check in with your students and making sure that they have all the available supports and resources that they require."

Moreover, participants shared about the way greater knowledge influenced attitudes related to stigma and their beliefs about teaching. For example:

"I learned about the differences between the myths of mental illness vs. the realities of mental illness. I learned that there are many myths about mental illness that can sometimes lead to or reinforce stigma. I learned that it is important for me to keep learning as much as I can and improve my mental health literacy in order to support my students."

Finally, participants related developing greater understanding of mental health challenges and supportive strategies with greater commitment to engaging in health promoting behaviours in the future:

"I know that when students may be upset a simple check in can show them you care and that they are safe at school. I will be that teacher that checks in with her students to see if they are in need of a listening ear or someone to talk to at any point. The course has allowed me to see the importance of seeing the warning signs in children who may be struggling emotionally and how to go about finding resources to help them."

Overall, participates shared that accessible evidence-informed resources about school mental health were highly valuable as they allowed participants to download and store the resources for future use. The resources also provided important information that provided clarification of information and a reduction of misinformation about mental health that led to: (a) greater comfort discussion mental health with students, (b) interest in ongoing learning and professional development related to mental health, and (c) commitment to engaging in basic health promoting strategies as a teacher.

Value 4: Clarifying my role as a teacher in supporting student mental health. Effective teachers have been described as architects of "environments of relationships" in which they create safe, consistent, and developmentally appropriate relationships that reflect the diverse needs of all their students (Centre for the Developing Child, 2015). As discussed in Chapter 2, teachers are held to high professional standards within a complex, dynamic, and multifaceted role. Participants reported that the course helped clarify the ways in which a teacher's role includes both supporting students' academic growth and overall development, "I have learned in this course is that is it our responsibility to not only develop students academically, but also to acknowledge and help when they may be struggling emotionally."

Participant comments reflected a sense of increased role clarity related to teachers' professional roles and responsibilities when supporting students with diverse needs. These responses reflected the understanding that teachers held significant influence over their students' experiences, and that promoting healthy classrooms was an integral part of their professional role.

"The most important thing I learned is the role you can play as the classroom

educator; that is, if you are engaged in their overall wellbeing and mental health of

your students you can have a positive impact."

Participant responses also described how teachers could have a negative impact on

students should they disregard student mental health concerns or behave in a way that

contributed to negative classroom beliefs about mental health challenges.

"I had two big takeaways from this course: first, the idea that teachers can actually

worsen things for students in crisis inadvertently, without really being aware of what

they're doing. And second, the notion that mental health is actually an imperative we

should keep in mind every day when we're teaching… all classroom practices should

be designed to promote good mental health."

Participant's further described how they anticipate that teaching responsibilities include a

commitment to ongoing learning and respect for student mental health challenges.

"I learned that it is important for me to keep learning as much as I can and improve

my mental health literacy in order to support my students… and be careful not to

trivialize a student's mental illness."

Lastly, participant responses highlighted the value of understanding limits of their roles

and responsibilities toward student mental health. Teachers are many things, but they are not

diagnosticians or mental health professionals. In the course participants were encouraged to

focus on students' strengths and needs (as opposed to diagnosis), to remember limits of

confidentiality and duty to report, and to bridge with mental health professionals whenever

necessary. "We must avoid diagnosing. We must be trustworthy, but not agree to 100%

confidentiality, and we must always have the safety and best interests of all students (and ourselves!) at heart."

Overall, participant feedback highlighted important components of the ways in which participants conceptualized their roles and responsibilities related to school mental health, specifically, (a) that teachers responsibilities extend beyond academic success and include mental health and wellness, (b) that they anticipate teaching students who will present with mental health challenges, (c) that teachers are powerful influencers of the classroom climate and can have a significant impact on a student's learning experience, (d) that effective teaching involves a commitment to life-long learning about mental health and (e) that there are important limits to a teachers roles and responsibilities related to school mental health.

Value 5: Opportunities to apply my learning to "real-life" situations. Participants highlighted the ways in which having opportunities to apply new ways of understanding to rich "real-life" contexts fostered learning and engagement, "I enjoyed following [the student profile] on his journey and seeing how his mental health developed over time…. getting to know a particular student allowed us to apply our learning to a real-life context." The value of the application of new knowledge to rich contexts is reflected in pedagogical approaches such as transformative learning (Van Schalkwyk et al., 2019; discussed in Chapter 2) and experiential learning theories such as those proposed by theorists such as Dewey and Kolb (Yardley et. al., 2012).   These theories share the recognition that learners must be engaged to gain knowledge, and that learners construct meaning from the application of knowledge within real-life experience (Yardley et. al., 2012). These constructivist principles of learning are notoriously challenging to promote within online settings in which learning is generally individually based

and largely asynchronous; as such, this course provided rich student profile narratives that evolved alongside each week of the course.

Participants highlighted that the value of the student profile narratives as the way in which they reflected "real-life" context and continued to evolve throughout the course. "I really liked the idea of having one student to focus on and having more of his story revealed throughout the 10 weeks. It made the readings more interesting when we had a situation to relate them to.

Overall, applying the course content to a student profile case study helped reflect the realities of "real-life" teaching within an online environment. Comments suggested that participants found the course content more relevant, interesting, and enjoyable with the rich context of an example to which it could be applied.

Specific suggestions and recommendations for improvement. Participants identified aspects of the course that could be changed, removed, or added to foster greater engagement and value. They also identified specific topics that were not covered but would have been useful and relevant to their role. A total of 75 unique participant responses were reviewed. Notably, as compared to the deep qualitative thematic constructs typically developed through the analysis of rich qualitative data (such as transcribed interviews), these topics reflect relatively shallow and narrow concepts that emerged from succinct online forum posts. As such, these topics were not further developed into overarching qualitative themes (Connelly & Peltzer, 2015); however, they represent a curated inventory of the most frequent and salient content within participant feedback and are considered sufficiently meaningful for consideration.

When exploring participant feedback related to areas of improvement, and three main topic categories emerged: (a) *consideration of person-to-person learning opportunities* (b) *increasing the value and depth of the online discussions,* and (c) *suggestions for course content*.

Improvement 1: Consideration of person-to-person learning opportunities. A

significant majority of reviewed feedback highlighted the value and applicability of the course

content while also acknowledging that such important content may have been limited by the

online environment. Participants identified that mental health is an integral part of a healthy

school environment, and that such an important topic was "deserving" of greater in-person

interaction.

This sentiment is reflected in the concept of "sustained interaction", as described by

Huberman (1999) includes a repeated exchange of information between individuals that

facilitates more robust learning. Huberman suggested that when it comes to dissemination of

information, "unidirectional flow has a short shelf-life; it is simply not remembered" (p. 310),

and that instead, ongoing exchanges leads to better retention of information and increased

likelihood of acting upon that information in the future. As such, it is perhaps unsurprising that

participants reported that the course could be improved with increased opportunities to connect

with instructors and peers. Participants suggested that in-person discussion would deepen the

learning experience:

“This is a very important course for all teacher candidates to take… Having peer to

peer interaction would have made the course more interactive and it's always good to

hear other people's perspective on the course material.”

Generally, while course participants reported that the flexibility provided by online

learning helped them manage their course load and use their time effectively, they did not feel

that the online-forum was a suitable replacement for in-person interaction,

“I thought the course was excellent - I would only suggest that this course, perhaps,

be reconfigured as a blended course. I like the interaction with an actual person who

can explain things and take questions (in person) and answer them for all to hear -

which is something that is missing from all online courses, in my opinion."

Participants proposed that the course could be offered in a blended format in which core

content and learning occurred online with opportunities for synchronous person-to-person

discussion: "I would have really appreciated an in class, small group tutorial for this course. The

topic of mental health is very serious, and I think worthy of an hour tutorial."

Improvement 2: Increasing the value and depth of the online discussions. Participants

reported mixed feedback regarding the discussion forums. Some indicated the forums served as a

space to reflect on their learning with peers, "The forum post format was good because it tested

our knowledge and thinking." While others felt it limited the depth of discussion and

engagement with peers,

> "The discussion forums felt artificial and forced, with repetitive questions, and there
>
> was a lot of "I agree, classmate! You've raised a good point… I think it would be
>
> beneficial if the forums were changed. Often, they covered only general comments or
>
> findings rather than delving into deeper issues."

Participants reported the forums could be used more effectively to foster greater a more

meaningful learning experience. "I would have appreciated more feedback on the forums so I

knew that I was on track with my thinking, and I would have appreciated more diversity in the

questions every week. But. overall really enjoyed the course and I learned a lot!" Overall, ways

to promote more meaningful use of the forums included (a) removing the word limit on posts; (b)

developing forum questions that promoted greater critical thinking, professional reflection, and

ethical considerations; and (c) having greater feedback from instructors or teaching assistants

within the forums.

Improvement 3: Suggestions for kocourse content. Participants highlighted topic areas that they felt would be beneficial additions to the course. These comments identified participant-driven gaps in knowledge, skills, or resources that were not addressed in the course, or elsewhere in their teacher education training.

Participants requested that the course more directly address the realities of the first few years of teaching through strategies tailored for temporary teaching assignments. Most new teachers will begin their careers on a supply or long-term occasional list, stepping into diverse classrooms for various lengths of time. They are likely to find themselves working in classrooms established by other teachers with unfamiliar students, some of whom will be struggling with social, emotional, and behavioural problems. The varied duration of these classroom assignments can make it challenging to develop the familiarity and trust needed to identify how students should be supported. Participants requested more information on how to work effectively with an unfamiliar classroom of students that are facing pre-existing challenges.

"More strategies for what to do when we take over a class that already has an unhealthy social environment! Many of us will soon be supply teachers and/or [long term occasional] teachers. If we walk into/take over someone's class and it is a disaster zone with a dozen Individual Education Plans' poorly addressed, bullying, and an entire classroom affected by toxic stress, how can we start to turn it around?"

Participants also requested greater knowledge and skills for supporting students with more significant and immediate mental health challenges. Specifically, they requested more information on how to respond to and support students experiencing a crisis, or who may present as a danger to self or others. Similarly, participants also requested more information about responding to disclosures of suicide. Suicide is the second leading cause of death in Canadian

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youth and all allied adults share a responsibility to help children and youth stay safe (CAMH, 2015). Participants identified that they expect that disclosures of suicidal ideation are likely to occur in their career and that these situations require thoughtful and appropriate responses. They recognized the importance of helping keep students safe and requested further support in building confidence in their ability to respond in ways that uphold their professional and personal responsibilities.

> "I think that this course needs to spend at least a week focusing exclusively on suicide prevention, preferably during an in-person lesson. Teachers need to get suicide prevention right; when we get it wrong, there are no second chances."

Overall, participant feedback highlighted gaps in knowledge or skills occurring at this critical stage of learning. While these findings offered valuable information regarding ways in which the course could be improved, these comments also had a secondary effect of illuminating aspects of the teaching role that participants anticipated encountering but feel ill prepared for, such as supporting a student in crisis or responding to a disclosure of thoughts of suicide. They reflected the way in which teachers identified the significance of their role, and strategies they felt were valuable to teaching successfully but had not yet been addressed.

3. Teaching Self-Efficacy Themes

As part of their small group online discussion, participants were asked to answer the following, "Thinking about your self-efficacy for teaching, share one experience that helped you develop positive beliefs in your ability to teach." Although online courses offer many benefits related to flexible learning, they have been criticized for reducing the depth of the learning experience through constraints on discourse, collaborative learning, and instructor – student contact (Dumford & Miller, 2018). For this reason, it was valuable to examine diverse

experiences that contributed to positive teaching self-efficacy, and explore the degree to which these themes were, or could be, reflected in online learning about mental health.

Participant responses highlighted salient, memorable, and impactful experiences that made a meaningful difference in their beliefs in their abilities. Themes that highlight important participant-driven considerations for the development of teaching self-efficacy emerged.

Participant responses were brief (approximately 150 words in length), shared in a monitored online forum, and within an asynchronous learning environment. As such, there was no opportunity for probing or follow-up questions as would exist within an in-person interview. Therefore, compared to the richness of information that would be provided within an in-person interview, these qualitative responses may represent a more shallow exploration of participant thoughts and experiences (Connelly & Peltzer, 2016), although some research would suggest that themes emerging from online forums are comparable to those found in in-person interviews when discussing sensitive health-related topics (Jamison et al., 2018). Although participant responses were brief, a qualitative analysis revealed commonalities across pre-service teaches' experiences. These findings were worthy of consideration of the ways in which the online program could be improved to better support the development of self-efficacy. A total of 52 participant responses were downloaded, coded, and explored based on guidelines from McLeoux's (1994) five-stage phenomenological approach (as cited by Biasutti, 2017; see Chapter 4 for further details).

Participants described diverse experiences from a variety of practical teaching settings such as formal practicums, part-time tutoring, or casual instruction of children in other capacities (i.e. swimming lessons, camp counselors etc.). Reponses highlighted experiences that involved both performance (i.e. actively performing a behaviour or engaging in a task) and meaningful

feedback or evidence of the relative success of the behaviour (i.e. verbal praise from a mentor). Five key themes emerged from participant responses.

Theme 1: Opportunities to face professional challenges and having the strength to overcome them

Theme 2: Affirmative feedback from meaningful individuals

Theme 3: Evidence of making a meaningful difference in students' lives

Theme 4: Experiencing positive relationships with students and superiors

Theme 5: Building self-efficacy is an experiential and interconnected process

Theme 1: Opportunities to face professional challenges and having the strength to overcome them. The most frequently occurring theme was that of facing professional challenges and having the strength or capacity to overcome them. As a pre-service teacher there are many new teaching experiences to be had, and participants frequently shared about approaching these new challenges for the first time:

"In a whole class activity, we all recited head, shoulders knees and toes for the sounds (or syllables) that we would hear in a word. This activity and whole lesson went so well and was during my first practicum that I felt a lot better about my ability to create fun and informative lessons for the students."

Participants also shared about unexpected situations that occurred in which they rose to a challenge they felt initially unprepared for. For example, finding one's self with unexpected teaching responsibilities and being successful in rising to the challenge triggered a sense of "having what it takes" which, in turn, boosted self-efficacy.

"An experience that I had was during my practicum in the grade 2 classroom at the beginning of the year when the associate teacher was off sick for 8 of my practicum

teaching days… I was left with minimal teaching notes and I proved I was confident enough to handle it by doing my own planning, leading instruction etc. (with some support from a supply teacher)."

Participants also shared a sense of vulnerability and uncertainty related to their teaching experience. They descried the ways in which overcoming these uncertainties challenged their previously held beliefs about themselves.

"I have always been nervous about teaching math, it has been a big stress of mine. My first math lesson was not great, and it reinforced my fears. However, reminding myself about my competency and engaging my self-efficacy I was able to push myself and change my style to find what works. I now love teaching math, it is a way that I can re-write my negative experiences and promote a positive math mindset in my students."

Furthermore, others wrote about identifying personal mistakes and demonstrating competency in rectifying the situation. Learning from previous mistakes and challenging beliefs have been identified as an important aspect of transformative and experiential learning (Van Schalkwyk et al., 2019; Klassen & Tze, 2014).

"At one point during my [Alternative Field Experience], I had a student become very upset about a comment I had made on his paper… he felt there had been a violation of trust…. So, I owned that I may not have given him feedback in the most productive way, and I tried to address his feelings. It ended up being a useful conversation."

Overall, participants shared about facing the uncertainty of teaching for the first time, handling an unexpected challenge, and owning and addressing mistakes they had made. This

concept is present across a variety of theories and prelogical practices; for example, Ryan and Deci's Self-Determination theory highlights the perceived ability to overcome challenges as one of the four key components to living a fulfilling life (the other three components are autonomy, connectedness, and high meaning; Deci & Ryan, 2008). Moreover, pedagogical theories such as transformative learning (Van Schalkwyk et al., 2019) and experiential learning (Yardley, Teunissen & Dornan, 2012) revolve around constructionist principles that suggest individuals construct knowledge and meaning from their experiences. Lastly, overcoming perceived challenges is an important aspect of self-appraisal, which in turn, is critical to the development of teaching self-efficacy (Klassen & Tze, 2014). These insights were reflected in participant responses in which they shared about teaching experiences that promoted self-efficacy. When participants overcame new challenges, it served as a valuable piece of evidence that they "had what it takes" to grow into capable teachers.

Theme 2: Affirmative feedback from meaningful people. When participants described personal experiences that contributed to a positive belief in their ability to teach, they frequently shared about situations in which they received affirming feedback from individuals whose opinions were meaningful to them (i.e. teachers, mentors, and students). Participants described experiences in which they had been provided with direct feedback about their teaching ability within a practical setting.

Participants described feedback received from a superior, such as an associate teacher, with whom the participants worked with during a practicum. Feedback was identified as more meaningful when it came from an individual who was respected as an expert in the field, for example, an educator who had been teaching for decades:

"I once taught a science lesson to grade 2s, we ended up having a great discussion about various environmental issues … my [Associate Teacher] told me she was amazed at the depth of the discussion. She is 4 years away from retirement … I felt like I must be doing something right, if I could teach my Associate Teacher something. I felt pretty proud in that moment."

Some participants were explicit about how feedback from other teachers contributed meaningfully to their ability to teach students with social-emotional-behavioural challenges. "I was working with a young student with emotional and social issues on a one-on-one basis. The student was well known among all the teachers at the school (because the student often created disturbances in the hallways.) While I was working with this student, the teachers around me gave me constant praise for how well the student had been doing since I began working with them."

At the same time, other participants wrote about feedback they received from students about the degree to which their teaching was successful, engaging, and helpful. "Last night I finally had a successful tutoring session with my student. After our session she said, "I like when you teach me because it feels like I am teaching myself."

Overall, participants identified that receiving positive feedback was a significant source of reassurance within the context of new teaching experiences, "I find the beginning of each practicum to be very nerve-wracking, so to receive really nice comments from my students after a few weeks with them feels great!" Encouraging feedback from valued individuals served to reduce feelings of self-doubt or boost self-efficacy following failures.   Affirmative feedback from others was described as a particularly powerful form of performance evidence that could

contradict negative self-beliefs and has been identified as a key aspect of teaching self-efficacy in related areas of research (Zilka, Rahimi, & Cohen, 2019).

Theme 3: Positive relationships with students and teachers. When describing experiences that helped them develop positive beliefs in their ability to teach, participants shared about the way in which positive relationships served as a boost to their sense of competency as a teacher. Participants associated positive relationships with evidence of effective teaching and identified that this contributed significantly to the confidence they felt in their teaching ability, "The fact that [my students] like me and look forward to tutoring is a big boost for my morale." This appeared to be especially true in the case of supervisors whose professional skill was acknowledged, and who were perceived to be authentically invested in their pre-service teachers' wellness and professional development. These positive relationships were captured through examples of shared time and meaningful feedback:

> "One particular experience that helped me develop positive beliefs in my ability to
> teach was in my third practicum when my educator took time to be my mentor and
> go for nature walks during our breaks and discuss things I should continue doing in
> my practice while working on our own health too."

Cultivating and maintaining meaningful relationships with others has frequently been identified as an important factor in wellness, self-determination (i.e. Self-Determination Theory; Ryan & Deci, 2017) and personal growth (Relational-Cultural Theory; Jordan, 2010). Jordan (2010) identifies that, by nature, humans grow through connection and require meaningful relationships to flourish.

Theme 4: Making a meaningful difference in the lives of students. Perhaps one of the most significant indicators of effective teaching is evidence of making a meaningful

difference in the lives of students. When describing experiences that contributed to a strong sense of self-efficacy participants wrote about evidence of a positive impact they had on their students. Some of these experiences reflected small, every-day interactions that served to affirm one's belief in their ability to teach, such as helping students achieve break-throughs in their understanding: "Any time that a student has an 'aha' moment, or something clicks, I feel really positive about my teaching abilities." Participants also described how they felt successful as a teacher because they observed unexpected growth in students' academic skill or performance on an evaluation.

"One would be working with an ESL grade 9 math class. Although the class was reasonably well-behaved and fun to work with, progress was slow as for many it was their first time in a Canadian classroom. Their math skills were hard to gauge, and not strong. Moreover, many were very weak in English. However, not long before I left I gave them a unit test and was surprised how well almost all of them had done on it."

In addition to observing academic growth, participants also shared about having a meaningful influence on student attitudes toward learning and their sense of independence. Observing a student demonstrate perseverance and increased autonomy reinforced a positive sense of teaching self-efficacy.

"Recently, a grade 3 student frequently asked how to spell words, I would always say, let's 'stretch it out'. Eventually, she would ask for help 'stretching it out' instead of how to spell it. Then I would see her 'stretching it out' on her own."

Notably, small gestures were often identified as significant indicators of having made a meaningful impact on the lives of students.

"When students let me know how I have helped them or when they want to catch me

in the hallway to just say "hi" or tell me about something their excited about, it

shows me that I'm making a positive difference in children's' lives."

Feeling as though they had something of value to offer their students was a significant sentiment shared across participant responses. Within teacher education programs pre-service teachers are learning and applying knowledge at a rapid pace. They are often fulfilling "real-life" teaching duties for the first time. Participants identified that observing growth in their students' abilities, mindsets, or autonomy was a meaningful source of positive evidence of their teaching ability.

Theme 5: Building self-efficacy is an experiential and interconnected process.

Throughout the qualitative analysis it was clear that the above themes were not mutually exclusive but rather complex experiences containing overlapping themes, and it was common to identify multiple themes within single responses. Participants wrote about experiencing self-doubt stemming from limited teaching experience, rising to new and sometimes unexpected challenges, striving to make a difference in the lives of students, and then receiving meaningful feedback about this performance from important individuals. For example:

"When I was working with my [Associate Teacher] he would constantly leave the

room to see if I could manage the class. He would walk back into the classroom

getting the students riled up, making me exercise classroom management

strategies… Afterwards, he discussed how things were going well and he wanted to

keep challenging me and dealing with different situations. This gave me confidence

in my ability to manage a classroom."

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Another participant shared about the way in which a negative experience resulted in growth when they had received critical feedback from a superior, which, over time, resulted in a commitment to continuous learning:

"I think my experience in a practicum last year really helped me believe I could teach well. I had done a quick assessment at the beginning of a unit and my associate teacher had plenty of comments for improvement. At first, I was disappointed in myself but after listening to her suggestions and doing some research, I found I was able to really identify what I needed to learn and truly accepted that teaching is a continuous learning experience."

This overlap and blurring of constructs reflected the real-life complexities in which elements of challenge, competencies, and relationships intertwine to form rich memories and experiences that shape our sense of self. These constructs are well-reflected in Self-Determination Theory that highlights basic psychological needs (i.e. autonomy, relatedness, and competence) that promote motivation, engagement, and drive for learning (Ryan & Deci, 2017).

Overall, findings suggest that the qualitative themes are worthy considerations when exploring the ways in which online courses can be better constructed to promote meaningful learning experiences. Participants unanimously shared experiences from practical settings, as opposed to classroom-based learning experiences. Perhaps because these experiences were most salient in participants memory and, therefore, contributed meaningfully to beliefs about one's teaching ability. This is reflected in pedagogical theories including transformative leaning (Van Schalkwyk et al., 2019), the theory of experiential learning (Klassen & Tze, 2014) and self-determination theory (Ryan & Deci, 2017). While most of the pre-service teachers' educational experience takes place inside classrooms in which they are the students, it is when they are

fulfilling the role of a teaching professional, receiving direct and indirect feedback about their abilities, that their professional self-efficacy grows significantly. Results suggest that enriched online-learning can draw insights from these findings through identifying ways in which course outcomes can be strengthened through applied learning, opportunities for professional relationship building, and meaningful feedback. This is explored further in Chapter 5.

Summary

Program evaluation is a decision-making tool "that entails making informed judgements about a program's worth, ultimately to promote social change for the betterment of society" (p. 9, Grembowski, 2016). This program evaluation found that following a 10-week, 20-hour online mental health literacy course delivered to 275 pre-service teachers simultaneously, there was significant improvements in participants' mental health literacy, stigma, and self-efficacy for teaching students with mental health challenges. The greatest changes were seen in mental health literacy, followed by self-efficacy for teaching students with mental health challenges, and lastly, stigma toward individuals living with mental illnesses.

The program evaluation also illuminated insights into participants' experiences within the course. They shared about the most valuable aspects of the course and recommended ways in which the program, could be improved. Feedback highlighted the following aspects of the course were the most valuable to participants: exploring how mental health impacts all, recognizing one's own mental health as a priority, deepening their understanding of the teaching roles and responsibilities in regards to mental health, awareness of the impact of stress and resilience on learning and working, and having opportunities to apply new knowledge to situations that reflected "real-life" school contexts. Participants also provided valuable recommendations about ways the course could be improved including promoting greater depth of

learning through opportunities for person-to-person contact (i.e. a tutorial session or regular office hours), greater recognition of the mental health experiences of pre-service teachers, fostering more meaningful discussions in the online forums through more thoughtful probing questions, exploring strategies for how to work effectively with a class over brief periods (such as when filling in as a substitute teacher), and further information on how to respond and support a student who is experiencing a mental health crisis or thoughts of suicide.

To better understand salient and important components to promoting teacher self-efficacy, participant reflections were reviewed for significant and reoccurring themes. Participant experiences highlighted components that were important to the development of teaching self-efficacy including: facing and overcoming new challenges, positive relationships with staff and students, receiving meaningful and affirming feedback, and noticing evidence of making a difference in student lives.

Overall, the course was identified as meaningful, relevant, and valuable for pre-service teachers, so much so, that they requested further opportunities to engage more deeply with the course material and mental health experts. The sixth and final chapter of this program evaluation reviews major findings considering the potential pitfalls of teaching higher education students in an online environment. It amalgamates qualitative and quantitively findings into five participant-driven kernels of effective practice for promoting the mental health literacy of pre-service teachers within online learning environments, before describing the overall lessons learned, study limitations, and implications for policy.

Chapter 6: Discussion

Teachers have a pivotal role in supporting student mental health (Rodger et al., 2014; Sulkowski & Simmons, 2018). They are key members of collaborative school mental health teams and their relationships with students offer protective powers against many adverse experiences (Weston et al., 2008; Sulkowski & Simmons, 2018). For teachers to effectively support student mental health, they must not only understand when and how to intervene, but also have positive attitudes and beliefs towards mental health that encourage them act (Fishbien & Ajzen, 2015; Kutcher et al., 2015).

Teacher education programs have historically done little to directly promote these capacities; however, as awareness and understanding about mental health increases, administrators and policy makers now recognize the importance of promoting mental health and wellness in schools. For this reason, a mental health literacy course was recently prioritized as a mandatory component of a teacher education program for the first time in Canada.

Initial teacher education offers a rich opportunity to shape the professional identity of teachers in an expanded role that promotes mental wellness in schools through mental health literacy and other supportive dispositions (Weston et al., 2008); however, the efficacy with which teacher education programs do so has not yet been thoroughly explored. The current program evaluation explored outcomes of the first mandatory mental health literacy course delivered to second year pre-service teacher education students at a large central Canadian university. In addition to exploring qualitative outcomes related to mental health literacy, stigma toward mental illness, and self-efficacy, this evaluation drew from participant experience to identify key course elements that contributed to its effectiveness and evaluated participant feedback to identify areas of improvement.

The course offered flexible and enriched online learning opportunities for 275 pre-service teachers in the second year of a Bachelor of Education program. It required few physical resources from the host faculty to provide approximately 20-hours of online multi-media instruction over 10-weeks. Each module included lecture-style narrated presentation slides, downloadable articles, relevant videos, and evidence-based school mental health resources. Content was designed, recorded, and pre-programmed by the course instructor and released weekly. The course provided a small curated library of additional online evidence-based tools and resources specific to student issues, such as poverty, domestic violence, newcomer status, and so forth. The course was designed and implemented by one instructor and supported by three part-time teaching assistants (TAs) who monitored activity in the online forums, graded assignments, and were available for support and consultation.

Program Outcomes

The results of the program evaluation indicate that this online mental health literacy course offered an efficient and effective platform for achieving learning objectives for a relatively large number of pre-service teachers. Participant demographic details were reflective of the larger Canadian teaching population—the cohort was approximately 75% female and most had one previous degree or related diploma (Ontario College of Teachers, 2018). Participants demonstrated a high level of engagement; on average, participants visited the site approximately 8 times per week and posted in the discussion forums weekly. They were also generally accurate in their completion of knowledge-based quiz questions (average grade of 86.8%) and displayed competent performance on skill-demonstration videos (average grade of 75%).

An evaluation of program outcomes found a significant shift in the overall level of mental health literacy, stigma, and teaching self-efficacy following completion of the course.

Approximately 65% of participants reported having received formal training or education about mental health or mental illness prior to taking the course. There was a small, but non-significant, effect related to previous learning about mental health and mental illness, suggesting that all participants—even those with previous learning—reported significant growth following the course.

Mental Health Literacy. There was a significant increase in the overall level of mental health literacy for pre-service teachers following the course. Further analysis found significant increases for two of the four subscales within the overall measure, specifically *Teaching and Leading a Mentally Healthy Classroom* and *Professional Relational Skill*s. The most significant changes were found in the subscale of Teaching and Leading a Mentally Healthy Classroom, which evaluated the degree to which participants believed they had the necessary knowledge and ability to work with children who have diverse social, emotional and behavioural needs. The Professional Relational Skills subscale examined skills related to forming and maintaining healthy professional relationships and managing conflict with others. Item analysis indicated that the greatest gains within the Professional Relational Skills subscale were on items measuring participants' ability to manage conflict with others. Taken together, this suggests a self-reported increase in participants' belief in their ability to create and lead a mentally healthy classroom and maintain positive professional relationships with students, parents, administrators, and other teachers—even in the face of conflict.

There were small, but non-significant, increases in participant responses on the subscales of *Expectations* and *Role Clarity*. Clarity around the responsibilities associated with teaching students with mental health concerns and appropriate expectations is especially important within the context of pre-service education, which prepares novice professionals for autonomous

practice (Weston et al., 2008). Item-analysis of these subscales found high rates of endorsement before the course began, leaving little room for growth following completion of the course. For example, 96.3% of participants either agreed or strongly agreed with the following item of the Role Clarity subscale before beginning the course: "I have a responsibility to meet the needs of students with behavioural and emotional problems". Similarly, 91.8% agreed or strongly agreed with the following Expectations item, "I will be teaching students who exhibit significant emotional problems." Interestingly, pre-service teachers' qualitative feedback identified one of the most helpful aspects of the course as clarifying the roles and responsibilities of teachers regarding student mental health concerns. It is possible that more nuanced aspects of role clarity and professional expectations were not well captured in the instrument items. It is also important to consider the potential role of positivity bias in these results, which is discussed in greater detail below (Bensch, Paulhus, Stankov, & Ziegler, 2019).

Stigma toward mental illness. Overall, participants reported a low level of stigma before beginning the course. Item-analysis indicated that participants had low levels of endorsement for statements involving negative attitudes toward mental illness with 50% or more of participants choosing the lowest possible answer (indicating no stigma or negative attitudes) on 7 of the 15 Likert scale items. This is consistent with findings reported in the evaluation of the factor analysis of the 15-item version of the OMS conducted by Modgill and colleagues with a large group of mental health professionals (2014). Similar findings have also been reported in previous studies on programs targeting mental health literacy for in-service teachers, in which different measures of stigma were sued (Kutcher et al., 2013). While this may suggest that teachers and other caring professionals may generally have lower levels of stigma, perhaps due to the influence of professional norms (i.e. stigma is reduced in the process of being or becoming

a teacher) or selection factors (i.e. individuals with lower levels of stigma are more likely to become teachers, participant responses could have also been influenced by positivity bias, such as socially desirable responding (Paulhus, 1984), overconfidence (Stankov & Crawford, 1997) or over-claiming (Paulhus, 2011).

Positivity bias is the tendency to respond in ways that portray one's self in a positive light given contextual and cultural norms (Bensch, Paulhus, Stankov, & Ziegler, 2019). Socially desirable responding, or the tendency to give overly positive self-descriptions, is the most clearly defined and thoroughly researched form of positivity bias (Paulhus, 1984; Bensch et al., 2019). A variety of theoretical models of this construct have been proposed, but this bias is generally understood to involve two components: first, egotistical bias—the tendency to exaggerate one's ability and status; second, moralistic bias—the tendency to deny socially undesirable impulses and claim positive "saint-like" attributes (Paulhus, 2002; Bensch et al., 2019). Furthermore, socially desirable bias may also involve both an unconscious tendency for self-enhancement and conscious, or deliberate impression management (Paulhus, 2002). Notably, socially desirable responding is influenced by contextual norms such as professional expectations (Dodaj, 2012; Parmač Kovačić, Galić, & Jerneić, 2014; Paulhus, 2002). For example, Parmač and colleagues (2014) compared response styles of participants applying for simulated job applications for either a business manager role or a nursing role and found that participants were more likely to adopt response styles consistent with specific professional expectations. However, extensive research also suggests that socially desirable responding has complex and overlapping relationships with personality factors including extroversion, agreeableness, emotional stability, conscientiousness, and so forth (Dodaj, 2012; Parmač et al., 2014). Other factors that influence response style include gender (He et al., 2015), cognitive ability (Bensch et al., 2019), individual motivators

(i.e. need for autonomy or relatedness), situational demands (i.e. evaluative settings versus anonymous settings), and contextual norms (i.e. professional norms associated with business professionals versus those associated with teaching and nursing professions) (Dodaj, 2012; Parmač et al., 2014; Paulhus, 2002).

Taken together, this suggests that role of biased responding is a worthy consideration given that the course was an evaluative setting involving clear professional norms and expectations in which participants were graded on their contributions. However, positivity bias in responding is a complex construct that is challenging to clearly measure and even more problematic to interpret the driving factors behind the behaviour (Dodaj, 2012; Parmač et al., 2014). Moreover, research on positive responding has been critiqued for challenges with operationalization, measurement, and psychometric soundness of its instruments (Bensch et al., 2019; Parmač et al., 2014). Presently, there are limited conclusions or implications that can be confidently drawn about positivity bias and socially desirable responding in this evaluation.

Despite low endorsement at pre-test and the potential role of positive response bias, there was a significant reduction in overall levels of stigma following the course. At the subscale level, significant improvement was found on two of the three subscales: Disclosure and Help Seeking and Social Distance (but not Attitudes). The most significant change was seen in the subscale of Disclosure and Help Seeking, which suggests that course participants were significantly more open to disclosing to others and seeking support for personal mental health concerns. This reduction in self-stigma was also reflected in course feedback, as several participants identified one of the most valuable aspects of the course as teaching them to prioritize their own mental health and wellness. The Social Distance subscale involved comfort working with or living close to individuals with mental illnesses. Following the course,

participants were more likely to endorse statements such as, "If a colleague with who I work with told me they had a managed mental illness, I would be just as willing to work with him/her."

There was a small but non-significant change in the subscale of *Attitudes* following the course, suggesting that there was not a significant change in participants' agreement with statements about individuals living with mental illness such as, "More than half of people with mental illness don't try hard enough to get better." Considering that 82% of participants either strongly disagreed or disagreed with the statement before the course began, the limited change seen in this subscale may be influenced by a floor effect. Notably, an item analysis found meaningful change in one of the items of the Attitude subscale; specifically, participants were significantly more likely to disagree with the statement, "There is little I can do to help people with mental illnesses" following the course. This may suggest that although participants' attitudes toward individuals with mental illnesses were positively rated at pre-test, the way in which they felt able to support these individuals improved. Growth participants' belief in their ability to support others with mental health challenges was also reflected in measures of teaching self-efficacy.

Self-efficacy for teaching students with mental health challenges. There was a significant shift in participants' beliefs in their ability to teach students with mental health challenges as reflected in all three subscales, Managing Behaviour, Collaboration, and Inclusive Practice. This effect was most significant for the Managing Behaviour subscale, which measured perceptions about one's ability to deal with challenging student behaviour, such as preventing disruptive behaviour in the classroom or dealing with physically aggressive students. The Collaboration subscale involved self-perceptions about working with parents (i.e. confidence in

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one's ability to get parents involved in school) and other professionals such as teachers, administrators, and other mental health professionals (i.e. confidence in one's ability to inform others who know little about important laws and policies). The Inclusive Practice subscale asked about the use of strategies that promote successful learning for diverse students—including those with social, emotional and behavioural challenges—such as confidence in one's ability to design learning tasks that consider individual student needs. Following the course, participants were more likely to endorse positive statements about their ability to manage student behaviour, collaborate with other caring adults and professionals, and use teaching practices that promote success and wellness for all students.

Participant Feedback. Participant feedback identified the course as well-organized, relevant, and engaging. They described it as a valuable and effective learning experience that all teachers should receive. It was further stated that the topics were important to the teaching profession and that participants valued the opportunity to apply their learning to the student profile narratives. Participants desired more information on specific topics related to school mental health, including how to respond to a student experiencing an emotional or behavioural crisis and how to support a student who has disclosed thoughts of suicide.

Participants also identified limitations related to the online teaching environment, such as constraints on the depth of dialogue and critical discourse. They shared that the topic was of such importance to their profession that deeper and more authentic discussions about mental health in schools would further enrich the learning experience. This could be addressed through changes to the online learning environment, such as more diverse and probing reflection questions or increased feedback from teaching assistants within the discussion forums. It could also be addressed through additional opportunities for synchronous communication, such as occasional

in-person tutorial hours, or optional online video conferencing for those who want to more deeply discuss specific topics.

These initial findings support the use of enriched online learning for mental health literacy within pre-service teacher education; however, careful consideration must be given to the potential shortcomings of asynchronous, computer-based learning. As this online program was offered to an entire second year Bachelor of Education cohort, outcomes must be evaluated within the specific context of pre-service teacher education programs. Thus, this program evaluation has integrated program outcomes and participant experiences to determine appropriate use and best practices of online learning environments for mental health literacy within pre-service teacher education.

Creating Effective Online Learning Environments for Mental Health Literacy in Pre-Service Education

In university-aged populations, online learning about mental health literacy is both an effective strategy for information dissemination (Lourenco, Ferreira, Gonçalves, & Nobre, 2016) and a useful tool for mental health promotion (Davies, 2015; Li, Chau, Wong, Lau & Yip, 2013). Importantly, creating an effective learning environment for mental health literacy in pre-service education requires consideration of both the course content and mode of delivery.

Although online learning platforms can offer engaging and flexible learning opportunities unlimited by time or space, they have also been critiqued for reducing the richness of collaborative learning, limiting depth of discussion, and reducing contact between instructor and students compared to traditional classroom settings (Dumford & Miller, 2018). Although previous research has established online learning as a convenient and sustainable means of promoting mental health literacy for experienced, in-service teachers (Kutcher et al., 2016),

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research has not yet fully established the effectiveness of the online mode of delivery and means of engagement for mental health literacy education in pre-service populations (Davies, 2015). Where experienced professionals have years of previous experience, pre-service teachers do not yet have significant in-service experience to which they can apply knowledge and reflect on new ways of understanding (Weston et al., 2008).

Pre-service teachers are in the early stages of conceptualizing professional roles and responsibilities while forming initial professional attitudes related to school mental health. Moreover, pre-service populations are, by definition, not yet engaging in full professional service and responsibilities; consequently, they will experience a gap of time between engaging with course material and applying it in autonomous professional settings. To address the unique factors related to pre-service education, the course was informed by two key theoretical frameworks: Theory of Reasoned Action (TRA, Fishbien & Azjien, 2010) and Transformative Learning Theory (Van Schalkwyk et al., 2019).

Theory of Reasoned Action. The TRA illustrates how the likelihood of engaging in specific behaviours (such as incorporating new classroom strategies) is influenced by attitudes toward the behaviour, the belief that the behaviour will effectively lead to desired outcomes, and perceived subjective social and/or professional norms (Fishbien & Azjien, 2010). Results from this evaluation suggest that following the course there was a small but statically significant reduction in participant negative attitudes toward mental illness (i.e. stigma related to social distance as well as disclosure and help seeking). There was a large effect found in the changes participants self-reported beliefs related to teaching and leading a mentally healthy classroom and establishing positive professional relationships, as well as a small to medium effect found in changes of self-reported teaching self-efficacy involving students struggling with emotional or

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behavioural challenges (i.e. self-efficacy for managing behaviour, inclusive practices, and collaboration). Although the quantitative analysis of the subscales of role clarity and professional expectations did not indicate significant changes following the course, this appeared to be influenced by high rates of endorsement of these factors prior to taking the course, leaving little room for improvement; however, qualitative analysis of participant feedback about the course found that participants repeatedly identified that one of the most valuable aspects of the course was the way in which it clarified the breadth and limitations of teaching responsibilities related to school mental health.

Applied to the framework of TRA, these findings suggest that there was a significant shift in the factors that contribute to the likelihood that participants will engage in behaviours that support positive school mental health. However, it is important to recognize that research on knowledge, attitudes, and behaviour is hugely contextual and often contradictory, there is robust evidence that sustainable changes in behaviour requires challenging knowledge and beliefs in a meaningful way (Fishbien & Azjien, 2010; Allum et al., 2008). Because deeply held attitudes are influenced by knowledge, norms, current beliefs, previous behaviours, cognitive biases, and so forth (Allum et al., 2008; Allport, 1935; Nickerson, 1998; Cooke & Sheeran, 2004), effectively changing attitudes is notoriously more complex than simply learning new information (Maid & Haddock, 2015; Fishbien & Azjien, 2010). Changing attitudes requires using both new information and novel experiences to challenge existing beliefs, which is precisely what transformative learning pedagogy seeks to accomplish.

Transformative Learning. Transformative learning challenges established perspectives by critically engaging personal and/or professional beliefs and experiences (Van Schalkwyk et al., 2019). Specifically, it targets the development of leadership capacities, such as empathy

(Cohen et a., 2015, Elliott et al., 2012; Greenhill and Poncelet, 2013), humility, and integrity (Greenhill and Poncelet, 2013; Hanson, 2013; Branch, 2010) through new experiences that serve as a catalyst for the examination of previously held beliefs. This is achieved through "*disorienting dilemmas"* or an *immersion into unfamiliar context* paired with opportunities for reflection, relational discussion, and new personal insights (Attebury, 2017; Frenk et al., 2010; Van Schalkwyk et al., 2019). This course fostered elements of transformative pedagogy through personal and professional reflection, peer-to-peer discussion, knowledge application within the student profile arrives, skill demonstration videos, and group discussion forums.

      Student profile narratives. Contact-based education is a core strategy to combat various types of various types of stigma (Buechter, Pieper, Ueffing, & Zschorlich, 2013). For mental health literacy, this involves connecting individuals living with mental illnesses to those who may hold stigmatizing attitudes in order to reduce stigmatizing attitudes and social distance (Brown 2010a; Chung 2005 as cited by Buechter et al., 2013). For this reason, the six student profile narratives in this course were based on real experiences of diverse students who faced stress and adversity that impacted their availability for learning. They were designed to serve as a proxy for a population of students with whom pre-service teachers have had limited exposure. As such, the narratives were written from the first-person perspective of a teacher and reflected real complexities within the school environment, including the influence of parents, administrators, and other students. Weekly updates were provided with each learning module. Participant discussion groups were assigned one of the six on-going narratives and asked to apply weekly content in determining a course of action. Participants reported that the opportunity to apply new knowledge and ways of understanding to "real-life" situations was helpful, engaging, and

enjoyable. Overall, participants identified the student profiles as a valuable addition to the course because it provided context onto which they could apply new learning and reflection.

Skill demonstration videos. Participants completed two skill demonstration videos that required them to plan, practice, and record themselves applying wellness support strategies to their assigned student profile. Specifically, participants recorded a short video roleplay of themselves initiating a conversation with the hypothetical student from their profile. While recording and watching their own videos, participants had the opportunity to observe themselves from a student's perspective. The goal of this assessment was to foster a sense of empathy for students and promote consideration of how participants present themselves to students.

Participants reported mixed feelings about the task. Some indicated that it was a helpful, growth-fostering experience that encouraged critical consideration about their use of tone and language when approaching students. Others indicated that filming and observing themselves having a hypothetical conversation with a laptop or recording device was an uncomfortable experience and not an accurate reflection of how they would converse face-to-face with a student. However, when applied to a framework of transformative learning, the experience of discomfort could be considered a product of engaging with a new experience in an unfamiliar context that involved critical self-appraisal (Van Schalkwyk et al., 2019). Thus, although the discomfort associated with the task is undesirable, it may meaningfully contribute to the examination of previously held attitudes or beliefs.

It is worth considering that the skill demonstration videos could be further developed to include an element of structured reflection. This reflection could involve having participants re-watch their skill-demonstration videos at the end of the course and consider how their student might feel and behave in response and identify ways to improve in a real professional setting.

Online forum discussions. The discussion forum served as a proxy for an in-person classroom setting in which participants discussed relevant course topics within a specified group of 18-24 individuals. Probing questions asked participants to reflect on valuable aspects of each module and apply course content to their assigned student profile narrative. Participants shared mixed feedback about the use of online discussion forums. While some participants reported that it served as a helpful opportunity to test out knowledge and thinking, others shared that the forums felt artificial and lacked the depth of discussion that would occur with an in-person environment.

During this course, TAs served as forum monitors and reviewed all posts and comments for relevance, accuracy, appropriateness, and professionalism. Weekly meetings were held between the TAs and course instructors for the purpose of providing updates, promoting cohesion, and addressing any concerns that arose. While the TAs posted weekly and monitored forums closely, they were limited in the frequency and scope of involvement in the online discussion forum given its size and the volume of weekly posts (approximately 687 posts per week).

Ways to increase the effectiveness of the online forums include developing more diverse discussion questions that encourage greater critical thinking and increasing feedback from the TAs who monitor the forums. However, while more detailed feedback may contribute to a more engaging learning environment, the cost—namely, time and energy—required to do this for large numbers of students must be weighed against relative benefits of more frequent and specific feedback within the forums.

Overall, this course was designed with full consideration of research, theories, and pedagogical approaches to target meaningful and lasting shifts in knowledge, beliefs, and

attitudes related to teaching mentally healthy classrooms. Participants provided feedback about the most valuable aspects of the course and ways in which it could be improved. They also shared experiences related to the development of teaching self-efficacy. Through comparing, contrasting, and collapsing the major themes in participant reflections and feedback, this study identifies five *participant-driven kernels of effective practice* for pre-service teacher mental health literacy.

Participant-Driven Kernels of Effective Practice

Kernels of effective practice is a term borrowed from implementation science and used to describe small—yet critical—components of a program or intervention crucial to its effectiveness (Embry & Biglan, 2008). These are specific aspects or elements of an intervention—or its delivery—that contribute significantly to its success; without their presence, the process would be less—or not at all—effective. For example, there are many ingredients in most medications, but it is the "active ingredients" which are largely responsible for the medicinal effects. In a similar way, specific aspects of an intervention or its delivery may be essential to the intervention's effectiveness (i.e. understanding the ways in which mental health and stress impact everyone), whereas other components (i.e. learning the symptomology of specific mental illnesses) may be less essential. Moreover, certain medicinal ingredients are benign individually and only become active when combined with others in specific ways. In the same way, participants identified that the combination of student profile narratives as "real life" examples combined with theoretical knowledge about school mental health was a highly valuable combination that deepened their understanding, ignited a sense of empathy, and challenged pre-existing beliefs.

While "evidence-based kernels" are identified through robust experimental examination across multiple studies (Embry & Biglan, 2008), this program evaluation has framed findings around "participant-driven kernels of effective practice." The term *participant-driven kernels of effective practice* highlights participants as the most valuable informants for the evaluation of this emerging area of study. Findings related to participant outcomes, experiences, and feedback were compared, contrasted, and collapsed to better understand the degree of effectiveness, sources of success, and areas of improvement for this online mental health literacy course. Since this program evaluation was conducted within an applied setting, it offers limited methodologic robustness as compared to an experimental study design; however, it offers significant value by drawing from multiple sources of feedback and situating findings within the experience of those who it impacts most—users of the program.

Participant experience, comments, and feedback were reviewed. Qualitative findings offered valuable insights into the ways online learning can be designed to improve the mental health literacy of early career professionals. Significant and notable themes found across participant responses were cross-compared to qualitative findings, previous research (Hatcher, 2017; Kutcher et al., 2015), theoretical models (TRA, Fishbien & Azjien, 2010), pedagogical practices (Van Schalkwyk et al., 2019), and expert recommended curriculum frameworks (Weston et al., 2008). This process identified the following five participant-driven kernels of effective pre-service teacher mental health literacy:

1. Role clarity

2. Expectation setting

3. Learning about the role of mental health, stress, and resiliency for all

4. Accessible, up-to-date evidence-based knowledge and resources

5. Opportunities for critical discourse, performance, and feedback

These components of effective practice highlight the most important and valuable aspects of online learning about mental health literacy for pre-service teachers specifically**,** as they were identified by pre-service teachers themselves.

1. Role clarity. Teachers are key contributors to school mental health. Warm and supportive teacher-student relationships are connected to a diverse host of positive student outcomes (Winnicott, 1992; Sulkowski & Simmons, 2018); however, not all teachers are aware of their protective power or specific wellness-promoting behaviours in which they can engage. Role clarity involves both highlighting what teachers are, but also what they are not. Teachers fulfill a unique and critical role in creating mentally healthy classrooms, supporting diverse needs, and bridging with other professionals when necessary. They are the drivers of classroom climate and serve as knowledge keepers, idea igniters, and self-esteem influencers. Teachers are stewards of growth and development. They mediate conflicts, model social-skills, reinforce behaviours, and provide care for both physical and emotional injuries. Teachers are often the first to identify students struggling with mental health challenges and are frequently involved in prevention and support (Jorm, et al., 2010; Rothi et al., 2008; Reinke et al., 2011). Teachers are many things— including coaches, mentors, music instructors, and play directors —but they are not mental health professionals. They are critical members of a support network of allied adults that includes school staff, caregivers, and health professionals who work collaboratively to support students in need; but they are not diagnosticians or treatment experts. They are not responsible for identifying which diagnoses students might meet the criteria for, but they are nevertheless irreplaceable informants regarding frequency, duration, and intensity of concerning behaviours within a school environment. They are not responsible for treatment planning or

intervention goals, but they do offer valuable intervention support and insights given their consistent presence in students' lives. Teachers are many things and providing clarity around the specifics of the breadth and limitations of their responsibilities is part of the mandate of teacher education programs.

In addition to defining professional responsibilities, it is important to for mental health literacy courses for pre-service teachers to provided clarity around unrealistic role expectations or unattainable teaching standards that lead to an increased risk of burnout (Crocker & Dibbon, 2008; Kutsyuruba, Godden, & Tregunna, 2014; McIntyre, 2006). Unrealistic, or "gold standard" teaching expectations include the belief that "good teachers" have close, warm, and strong relationships with all students at all times. In contrast, "good enough" teaching standards highlight a reasonably attainable and maintainable professional standards given the relevant context and available resources (Winnicott, 1992; Sulkowski & Simmons, 2018). "Gold standard" teaching may involve always being calm but energized, warm but not permissive, firm but accommodating, encouraging and accepting but also constructive—all while providing clear, but flexible, expectations for well-prepared and engaging lessons that are tailored to specific student needs; *and* being available for individual social, emotional, and behavioural support for those students who struggle more than most. In contrast, *good enough* teaching involves being able to appropriately adjust to student needs, help students feel generally understood, provide adequate support, and use gentle discipline when necessary (Sulkowski & Simmons, 2018). "Good enough" teaching strives to provide satisfactory emotional warmth, support, and guidance that is adequate to promote healthy development (Sulkowski & Simmons, 2018). In the same way, providing role clarity around "good enough" mental health literacy goals may alleviate

pressure associated with unrealistic or perfectionistic expectations related to teachers' roles and responsibilities.

The role of an educator is complex and multi-faceted. Thus, it may not be surprising that participants identified one of the most valuable aspects of this course as the way in which it clarified a teacher's roles and responsibilities in relation to student mental health. Participants shared their appreciation that the course outlined both what a teacher's role includes (i.e. creating a safe and healthy classroom, noticing concerns, providing individualized accommodations or modifications, and bridging with other professionals when concerned), and what it does not (i.e. suggesting a diagnosis of mental health problems or providing treatment for serious mental illnesses). Thus, providing greater role clarity around professional responsibilities is, arguably, a vital component of mental health literacy interventions for pre-service teachers.

This course provided information to clarify the teaching role and encouraged reflection on this topic. For example, the course offered information on educator-specific tiered mental health support strategies, such as the AIM Model, and included descriptions of the relative legal and professional responsibilities, including expectations, duty to report, and limits to confidentiality. Participants were also encouraged to appraise their personal beliefs associated with the teaching role by reflecting on both their motivations to become a teacher as well as personal experiences involving highly effective teachers. Lastly, participants applied the scope and boundaries of their teaching role through the skill demonstration videos and the on-going student profile which, at times, asked participants to consider dilemmas regarding limits to confidentiality and duty to report.

Although qualitative participant feedback identified role clarity as one of the most valuable aspects of the course, quantitative results found a small, but non-significant,

improvement in Role Clarity, a subscale of the MHLQ, following the course. As discussed above, this may be influenced by the degree of endorsement of Role Clarity items at the time of the pre-test, leaving little room for improvement; or this may reflect that the measurement tool did not detect more nuanced changes in role clarity.

Overall, findings suggest it may be helpful for pre-service mental health literacy programs to directly explore: a) specific legal, ethical, and professional responsibilities teachers have in supporting student mental health; b) limits to these responsibilities; and c) unrealistic myths associated with the teaching role. It may also be helpful to frame these responsibilities around a philosophy of "good enough" mental health support. These factors are worthy of consideration when designing and delivering future mental health literacy programs for pre-service teachers.

2. Expectation setting. In addition to understanding a teacher's role in supporting student mental health, it is also necessary for teachers to have a relatively accurate expectation of the needs of future student populations in order to anticipate how mental health challenges may present in the classroom. With estimates of one in five Canadian children meeting the criteria for a diagnosable mental health disorder and even more suffering from sub-clinical symptoms (CMHA, 2015; Flett & Hewitt, 2013), it is not a matter of *if* teachers have a student in their class who struggles with mental health, but *when* they do.

Students who live with the effects of mental illness, stress, or trauma often present as disorganized, dysregulated, and/or disobedient (Centre for the Developing Child, 2015). Effective expectation setting for pre-service teachers must do more than share sobering statistics related to student mental health or list the symptoms of specific mental health problems; rather, it must effectively illustrate the diversity of mental health presentation, including problems with

learning, behaviour, emotional regulation, social-skills, or attentional control, across different developmental stages (i.e. elementary, middle, or high school ages). Expectation setting must also include discussing degrees of severity for these challenging behaviours (i.e. intensity, duration, and frequency), and situating them within a realistic framing of available resources and supports.

This program evaluation identified that the course could have included more support for expectation setting. Qualitative results of the MHLQ indicated a significant shift in the overall level of mental health literacy; however, when exploring the four subscales of this measure— Teaching and Leading a Mentally Healthy Classroom, Professional Relationships, Role Clarity, and Expectations— Expectations did not demonstrate a significant improvement following the completion of the course. As previously discussed, this finding was likely influenced by the fact that most participants highly endorsed the items within the Expectations subscale at the pre-test. Future course offerings could consider additional ways to help pre-service teachers develop accurate expectations for student mental health. One way to address this gap would be to feature "ask-the-expert" discussion-style video or podcast interviews with experienced teachers who have supported diverse students with mental health challenges or have been involved in writing Individual Education Plans.

3. Learning about the role of mental health, stress, and resilience for all. Research suggests that knowledge related to mental health, stress, and resiliency is essential for help-seeking behaviours, such as knowing when to connect a student with mental health professionals and has the potential to enhance early identification of at-risk students and assist them in receiving appropriate care (Milin et al., 2016; Rusch et al., 2011; Henderson et al., 2013). One of the most important components in preparing teachers is providing them with the requisite

information to make informed decisions regarding mental health at school (Rodger et al., *submitted;* Kutcher et al., 2016), and better understand how non-academic barriers to learning, such as emotional or mental health problems, contribute to development and school success (Weston et al., 2008).

Within this course, participants identified learning about the role of mental health, stress, and resilience for everyone involved in school mental health as one of the most important and helpful course components. Participants reported increased awareness about how mental health impacts students, staff, teachers, and parents, and greater confidence in their ability to support a student who is struggling with mental health. Moreover, following the course, participants reported an improvement in the way in which they reflected on and prioritized their own mental health, a reduction in stigma related to disclosing mental health challenges to others, and an increase in the likelihood that they would engage in personal help-seeking behaviours.

In a comprehensive curriculum framework guide for preparing teachers to promote school mental health, Weston and colleagues (2008) emphasize that teachers should be trained in strategies and coping mechanisms that address both personal and professional expectations. This includes understanding aspects of stress and burnout, engaging in reflective practices, and applying coping strategies to address stressors. This is especially relevant because teaching is a multi-faceted and stressful occupation in which stress, burnout, and isolation can significantly impact job satisfaction, productivity, and quality of life (Johnson et al., 2005; WHO, 2010; Teaching and Learning International Survey, 2013; Ellis & Riel, 2014). Following the course, participants shared that they experienced growth in understanding how poor mental health and job-specific stressors can lead to reduced job satisfaction and productivity. Participant responses described how maintaining their own mental health would positively contribute to improvements

in the quality of teaching, student outcomes (Ares & Morin, 2016), home life, as well as contribute to a long and healthy teaching career.

Specifically, participants highlighted the modules on stress (week 4) and resilience (week 7) as some of the most valuable aspects of the course. They also shared that the topic of stress and resilience was not addressed elsewhere in their professional development, and that learning about different kinds of stress (i.e. daily stress, acute stress, chronic stress, trauma, and so forth) supported their understanding of stress as both necessary and useful in some contexts, yet frequently debilitating within learning environments. Participants learned that creating a healthy learning environment does not involve removing all stress from students' lives, but rather teaching how them to cope with daily stressors by modeling positive strategies, creating a space for students to learn, and remaining empathetic to students exposed to chronic stress and trauma, such as poverty, neglect, or unexpected changes in caregivers.

Overall, participants highlighted that learning about the role of stress, resilience and mental health was important within their role as teachers and stated that all teachers should have this foundational understanding. As Weston and colleagues observe:

"It is critical that teachers, as well as those studying to become teachers, be exposed to a comprehensive curriculum that facilitates attainment of the knowledge and skills needed to address students' social-emotional and behavioral health. Teachers must also receive adequate preparation in coping with stressors and maximizing overall health and well-being. When students and teachers are healthy, the school environment is healthy, and the conditions for learning are present so that students and teachers alike can flourish" (Weston et, al., 2008, p. 33).

4. Accessible evidence-based knowledge and resources. Participants also identified access to organized, evidence-based, and useful resources as another valuable aspect of the course. Resources were especially valuable because they could be both read immediately and downloaded or shared for later use. As pre-service professionals, participants anticipated needing specific knowledge and information in the future as they begin their teaching careers. They also recognized that student mental health concerns can arise at any time and shared a desire to be as prepared as possible when this occurred. With the diverse and individual nature of mental health, it is challenging to anticipate what information they will need because, as discussed above, pre-service professionals face a gap of time between learning and applying these learnings in an autonomous professional setting. These tools and resources help span the gap of time between teacher preparation and professional teaching.

Additionally, when beginning their career, most teachers will start by filling short or long-term absences of full-time teachers in a variety of schools and communities. Local resources such as school support staff, child and youth help-lines, mental health professionals, and community programs vary widely based on location. For this reason, *Mental Health Literacy: Supporting Social-Emotional Development,* strived to equip participants with the ability to identify the "pathway to care" at any school participants work in. The pathway to care includes knowledge of available in-school resources (i.e. administrators, social workers, mentor teachers, etc.), a scan for relevant and reputable local community mental health resources (i.e. help-lines for children and adolescents, etc.), and the development of a "toolbox" of favourite strategies or resources that are not school-specific and can be efficiently applied to all classrooms (i.e. short- guided mindfulness practices, pause and check-in activities, or body-break exercises).

When possible, downloadable and sharable succinct evidence-based tip sheets that highlighted key information were made available. The course also guided participants to use credible, school-appropriate, and evidence-based resources, such as TeachResiliencey.ca and the Canadian Mental Health Association, as well as provincial implementation support organizations, such as School Mental Health Assist Ontario. Tools and resources were carefully selected to provide pre-service teachers with a guiding roadmap—or pathway to care—that they can carry forward into their career and apply to all future teaching settings.

5. Opportunities for critical discourse, performance and feedback. Participants repeatedly highlighted critical discourse, performance, and feedback as important aspects in of *Mental Health Literacy: Supporting Social-Emotional Development*. When providing feedback about the course, participants valued opportunities that promoted further exploration of certain topics and noted a preference for person-to-person connection when possible. This sentiment is reflected in the concept of Huberman (1999)'s concept of "sustained interaction". Huberman argues that sustained interaction involves a repeated exchange of information between individuals to facilitate more robust learning. When information flows uni-directionally, recall is generally poorer; conversely, on-going exchanges fosters better retention of information and an increased likelihood that knowledge will be acted upon in the future (Huberman, 1999).

As discussed above, limitations of the online learning environment may be barriers to fostering authentic connection and rich discussion. Participants reported that an asynchronous online discussion forum did not serve as a suitable replacement for person-to-person connection. Thus, participants indicated that the learning experience could be further enriched through increased opportunities for discourse and feedback.

The value of discourse, performance, and feedback also emerged as a major theme within participants' experiences related to teaching self-efficacy. For example, when working with a student struggling with emotional challenges, receiving positive feedback from an associate teacher served as meaningful evidence of teaching ability and boosted teaching self-efficacy. Participant comments suggested that feedback was most salient from individuals with whom a participant's relationship was characterized by one or more of the following: genuineness and warmth, personal investment, or respected expertise. This included associate teachers, students, and administrators with whom participants worked closely. Receiving meaningful feedback on performance has been identified as a critical component for the development of teaching self-efficacy (Morris et al., 2017); however, this too can be challenging to foster within online learning environments.

As discussed above, online learning poses challenges in reflecting on the reality of classroom expectations and promoting generalizability of knowledge and skill to real life examples. As such, this course offered proxies for these experiences through the student profile narratives and skill demonstration videos. Participants reported that they found the student profile narratives useful and engaging tools to which they could critically apply course content. Participants also received constructive written feedback regarding their performance on the skill demonstration videos and suggestions to improve their approach and strategy use.

Although online courses often struggle to foster practical learning experience, this course had the advantage of being embedded within a larger teacher education program that involved multiple practicum experiences before, during, and following the course under evaluation. For example, in their first year of the teacher education program, participants spent 8 weeks observing and teaching with an Associate Teacher; in the second year of their training, they spent

18 weeks engaged in practical experiences with two of these weeks occurring between modules 5 and 6 of *Mental Health Literacy: Supporting Social-Emotional Development*. These embedded practicum opportunities provided an important opportunity to apply and receive feedback on new knowledge and skills and are a recommended addition to online learning.

Overall, the enriched online course was found to contribute meaningfully to the development of mental health literacy for pre-service teachers. Feedback about the course, in general, suggests that greater opportunities for connection would improve the course through more critical consideration of the course content and professional feedback.

Limitations

This program evaluation was conducted within an applied setting that reflects many of the complexities of formal teacher education. *Mental Health Literacy: Supporting Social-Emotional Development* was mandatory for all second year Bachelor of Education students at the host university, with no control or waitlist group to which findings could be compared. As such, this program evaluation does not offer the level of variable control found within clinical and experimental research designs. Moreover, participants engaged with this course while also participating in numerous other formal, and informal, learning experiences, including other courses on teaching and practical experiences. As such, when exploring outcomes related to mental health literacy, stigma, and self-efficacy, these findings cannot be isolated to the results of this program alone; rather, they result from dynamic interactions between the course content and other meaningful learning experiences. This dynamic interaction between theoretical learning and practical application of knowledge has been found to lead to more significant shifts in attitudes and behavioural intention compared to theoretical learning alone (Happell et al., 2008). Nevertheless, future evaluations could consider evaluation designs that promote greater

control over variables, such as the inclusion of a wait-list group, or comparison group at another faculty of education.

The possibility of socially desirable responding is another consideration in evaluating attitude-based program outcomes. For example, there was a small—but significant—effect in self-reported mental health stigma. This small effect size may have been influenced by a low level of endorsement of stigma before the course began (i.e. floor effect). Although teachers may generally possess lower levels of stigma toward mental illness as compared to the general public, it is worth noting that the measure of sigma used below conscious awareness—which are also linked to forms of discrimination and/or prejudice such as more restrictive forms of behaviour management (Stull et al. 2013; Thornicroft, 2008). Future evaluations may consider alternative ways to evaluate complex outcomes such as attitudes toward individuals with mental illnesses as impacted by professional norms, personal expectations, and social desirability (Fishbein & Ajsen, 2014). Although such methods could include measures of implicit association tasks, it is important to note that these measures have come under criticism regarding their reliability and predictive validity (Kopera et al., 2015).

Lastly, this program evaluation explored immediate outcomes within two weeks of the completion of the course. Longer-term effects of the course could be explored through follow-up tests and interviews following the completion of the participants' first year of professional teaching. Asking participants about aspects of the course that remained salient and/or useful within the first year of teaching would provide valuable insights into the usefulness of the course content over time. Participants could also be asked to share what they wish they had known before beginning their first year of teaching to highlight any gaps in important information overlooked by the program. This would allow for greater depth of understanding in how formal

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teacher education can best prepare pre-service teachers for their role in supporting student mental health.

Overall, there is limited research on the mental health literacy of pre-service teachers and the value of online learning. This program evaluation reviewed outcomes of the first mandatory mental health literacy course for teacher education students at a large Faculty of Education in Canada. It used a robust sample size to explore important outcomes related to teachers' ability to create and lead mentally healthy classrooms. It thoughtfully explored participant experiences and course feedback to identify the ways this course, and others like it, could better support the needs of pre-service teachers through online learning.

Policy and Implications: So, what, now what?

Teachers have both a professional and legal responsibility to support the health and wellness of all students in their care. Teachers must be prepared to recognize and respond effectively to school mental health needs because both students and staff benefit from greater understanding and support. Professional expectations on teachers is ever-expanding and pre-service teacher education programs must to stay current. Despite the essential need of mental health literacy, it is an essential component of teacher education that, until now, has been largely omitted.

The development of mental health literacy requires more than just the acquisition of knowledge and skills. Attitudes—such as self-efficacy and stigma—are crucial for future behavioural intention to tip the scale in favor of action, as opposed to inaction, when teachers are faced with a complex real-life mental health dilemma. Increasing mental health literacy aims to build capacity in teachers to create safe and healthy classrooms, recognize and respond appropriately to social, emotional, or behavioural challenges, and support their own wellness

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though making informed health-promoting decisions. It can shift the way in which novice teachers prioritize their own health and reduce challenges related to uncertainty around mental health (Whitley, Smith, & Vaillancourt, 2012), as higher levels of mental health literacy increase knowledge, comfort, and confidence related to mental health amongst diverse students (Sharma, Loreman, & Forlin, 2011; Kutcher et al., 2013). Overall, efforts to increase mental health literacy at the pre-service level offer many benefits for generations of teachers and students.

Conclusion

The conclusions drawn from this program evaluation highlight how faculties of education can make meaningful shifts in the mental health literacy of pre-service teachers through enriched online learning opportunities. Important consideration should be given to how knowledge and attitudes are explored within the content and delivery of mental health literacy courses in teacher education, especially within online courses to avoid the potential pitfalls associated with asynchronous, computer-based learning. Pre-service teachers felt that the topic of mental health literacy was highly valuable to their teaching role and appreciated the flexibility provided by online learning; however, they also highlighted the value of additional opportunities to share meaningful discuss of relevant course content, which would further deepen their understanding of how to create and lead mentally healthy classrooms.

> "As an educator, if you are able to notice the signs and help your students, you are
> enabling them to become more successful in and out of the classroom. This course
> helped me clarify my role as a teacher in supporting students' mental health and/or in
> helping them address mental illness. I came in knowing I wanted to be an advocate,
> but I left having learned the finer points of my role, such as when to ask for (or refer

to) help, and how to promote positive mental health for all students in my future

classroom." – Course Participant

   This course offered a template for a highly scalable, sharable, and adaptable program that

could be conveniently offered to large groups of pre-service teachers simultaneously.

Qualitative and quantitative findings suggest that more faculties of education should consider

incorporating mental health literacy as a critical component of teacher training. Thus, teacher

education programs are encouraged to adapt, modify, and build from these initial findings to

offer a rich mental health literacy education reflective of their community's unique contextual

factors to increase the cultural relevance of the program. In the words of one of the course

participants,

> *"The most important aspect of this course for me, was finding out that mental health*
>
> *is finally being given the direct attention it deserves. By implementing programs that*
>
> *explicitly outline the importance of supporting youth, acting to help these struggling*
>
> *will become the norm rather than being swept under the rug…. with everyone doing*
>
> *their part, this can truly change." – Course Participant*

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Western
Education

Faculty of Education
The University of Western Ontario
B.Ed Course Outline

Mental Health Literacy – Supporting Social-Emotional Development
EDUC 5018Q
Online (OWL)
October 2016-February 2017 (10 weeks; 20 hours)

Instructor*:*

Teaching Assistants

Calendar Copy:

Mental Health Literacy – Supporting Social-Emotional Development: Designed to assist classroom teachers in understanding development, mental health, depression, family dynamics, self-esteem, and access to care, and the effect of these issues on student learning. Intended to raise teachers' awareness of signs that students may be in need of support. .25 credit.

Guiding Principles:

· To develop, enhance and support preservice teachers' competencies to create the conditions within a culturally-aware framework, where children and youth will thrive, develop skills, resiliency and agency in decision-making about their holistic health and well-being.

· To provide an introduction to, and suggestions for, evidence-based school-based health (including mental health) promotion, prevention of problems, and early intervention practices for children and youth who are in need.

· To engage and encourage preservice teachers in developing a community of practice to share, learn, and support one another to build our collective capacity to create learning environments that attend to wellness.

· To offer effective and practical strategies to support child and youth resiliency and mental health.

- To offer effective and practical strategies to support teacher resiliency and wellness, and, through the attention to resilience and mental health for both teachers and their students, help create positive, supportive, and growth-oriented relationships for all.

Learning Outcomes:

- How to use current research in teaching and learning

- Child and adolescent development and student transitions from kindergarten to grade 12, and up to age 21.
- Educating students of a program of professional education in child, youth and parental mental health issues relevant to the elementary and secondary school environment in Ontario.
- The College's "Standards of Practice for the Teaching Profession" and "Ethical Standards for the Teaching Profession".
- Knowledge of the Ontario context in which elementary or secondary schools operate

- Ontario education law and related legislation, occupational health and safety legislation and legislation governing the regulation of the teaching profession in Ontario and the professional obligations of members of the College.
- How to create and maintain the various types of professional relationships between and among members of the College, students, parents, the community, school staff and members of other professions.

Course Content

Block 1: Oct. 18-Nov. 20: Mental Health and Mental Illness: What it is and is not

Week 1: Mental Health at School: (Oct. 18)
- Social emotional development
- Language
- Mental health and mental health literacy
- Culture, social determinants of health and equity in access & support

Week 2: The Context of the Lives of Children, Youth and Teachers (Oct. 25)
- What comes to school with us
- The role of schools and teachers
- Trauma-informed teaching

Week 3: Mental Health in the Classroom (Nov. 1)

- Prevalence and onset of mental illness

- What good and poor mental health look like at work and at school

- The influence of mental health on learning and working

Week 4: Critical Issues (Nov. 8)

- The stigma of mental illness

- Diagnosis, treatment & outcomes

- Professional issues

Week 5: Stress (Nov. 15)

- Defining and describing risk

- Developing healthy coping strategies

Block two: January 10-February 12, 2017: Mental Health: What to ask, do and say

Week 6: Learning, Teaching and Working (Jan. 10)

- Building relationships

- Creating and leading a mentally healthy classroom

- The Caring Adult

Week 7: Caring for students: Building Resilience and Responding to Challenges (Jan. 17)

- What to look for

- What to say

- Working with students, parents and the community

Week 8: Taking Action (Jan. 24)

- The role of the teacher

- Resources

- Pathways to care in your school/district

Week 9: Caring for ourselves: Building Resilience and Responding to Challenges (Jan. 31)

- Building awareness

- Self-care

· Working within the system

<u>Week 10: Creating and Leading the Mentally Healthy Classroom (Feb. 7)</u>
- · Planning for a mentally healthy classroom
- · Creating a mentally healthy classroom
- · Knowing what is working, what needs attention

Course Materials:

Each week, core readings and resources will be provided on the course website. Students are encouraged to see out other sources of information (readings, video, or other resources) to personalize the course in a way that aligns with their approach to working with children and youth with mental health challenges.

Assignments and Other Course Requirements:

Preparation for Class

This course is designed to be engaging and collaborative, and students will be expected to participate and contribute to one another's learning experience, and interact in online discussions with your instructor and your peers. Prior to each class, students are expected to have completed the readings and activities in order to engage thoughtfully in the online dialogue and get the most out of the course.

1. Students will complete a <u>pre-test and post-test</u> to track program efficacy in meeting course goals. These are not graded, but are considered participation. These will be completed via a link on the OWL site. <u>The pre-test will be available for completion beginning at 8 am October 11, and close at 11:59 pm on October 17.</u> There is no need to study any materials for this pre-test, it is merely a baseline. <u>The post-test will be available at 8 am on February 6,</u>
<u>2017 and close at 11:59 on February 12, 2017.</u> The pre-test and post-test are worth 7% each and students will receive 7 marks for completing each one (they will not be graded). (1 pre- test and 1 post-test x 7% each = 14% of final grade)

2. Students will complete <u>weekly online quizzes</u> weeks 2-10, based on material covered that week. These online quizzes will open at the beginning of each week (i.e. each Tuesday morning at 8 am) and close each Sunday evening at 11:59 pm. Students have 1 hour to take the quiz once they begin. While students may write it at any time during the time it is open, in order to have the complete 1 hour, they must start by 10:59 p.m. on the Sunday night of each week of the course (quizzes are written at the end of each week of the

course). Quizzes will contain 8-10 questions each and each quiz is worth 4% of the final grade (9 quizzes x
4% each = 36% of total final grade). It is expected that students will complete quizzes independently.

Students will participate weekly in the Discussion Forums. Based on your program (P/J, J/I, or I/S), students will be assigned to smaller discussion groups of about 20 people (the same group for the whole course. Evaluation of your participation will be based on your ability to:

- Respond thoughtfully within each discussion;

- Make connections between the course content, readings and participants'
  discussion to date;

- Critique ideas, and build on responses of others;

- Raise probing questions that further the discussion;

- Communicate in a professional dialogue, which includes
  negotiating differences.

- Engage as an adult learner, responsible for taking and demonstrating
  initiative in the discussion in ways that foster a scholarly community
  of practice.

- Each week you will be required to respond to key questions, and provide
  meaningful feedback to the contributions of at least one of your peers.
  Original responses to each question must be 40-75 words, and feedback
  to peers must be 40 words or less.

 The Discussion Forum opens each week at 8 am on the Tuesday and closes at 11:59 pm on the Sunday of the same week and is graded based on the criteria above; each week's participation is graded out of 4% (each week, 1 mark for answering each of 3 questions in 40-75 words, 1 for responding in 40 words or less to the post of at least one other member) (4% x 10 weekly discussions = 40% of final grade)

Summary of Assignments and Marks

Assignment	Type of Grade	Due Date	Value
Pre- test (no preparation required)	Participation	Pre-test: opens 8 am Oct. 11/16 and closes 11:59 pm Oct. 17/2016	7%
Online quizzes (weeks 2-10)	Graded for accuracy	Weekly	4% each, 36% of final grade
Discussion (weeks 1-10)	Participation, but evaluated using criteria seen in the description of assignments	Weekly	4% each, 40 % of final grade
Video assignments (2)	Evaluated based on criteria, details on OWL website	Nov. 20/2016 Feb, 12/2017	5% each, 10% of final grade
Post test	Participation	Post-test opens 8 am on Feb. 6/17 and closes 11:59 pm Feb. 12/2017	7%
			100%

Policy Statements:

Accessibility: The University of Western Ontario is committed to recognizing the dignity and independence of all students and seeks to ensure that persons with disabilities have genuine, open and unhindered access to academic services. Please contact the course instructor if you require course materials in an alternative format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 x 82147 for information about requesting academic accommodation, or go to the following website: http://www.edu.uwo.ca/programs/preservice- education/documents/policies/Accessibility_Western.pdf

Attendance: The B.Ed. program is an intense and demanding program of professional preparation in which teacher candidates are expected to demonstrate high levels of both academic and professional integrity. Such integrity is demonstrated in part by commitment to and attendance at all classes, workshops, tutorials, and practicum activities. Read more about the Faculty's attendance policy at http://www.edu.uwo.ca/programs/preservice-education/Attendance%20Policy%202016.pdf

EXCUSED ABSENCES: If you are ill, require compassionate leave, or must miss classes for religious observance, your absence is excused; you will not be penalized but you are responsible for work missed.

UNEXCUSED ABSENCES: Any absence that is not a result of illness, bereavement, or religious observance is an unexcused absence. Three unexcused absences will result in you being referred to the Associate Dean and placed on academic probation. Any further unexcused absence will result in failure of the course and withdrawal from the program.

Instructors, after consulting with the Associate Dean, may refuse to evaluate all or part of a Teacher Candidate's work if that Teacher Candidate's unexcused absences within a single term amount to 25% or more of the course hours within that term. The outcome for the Teacher Candidate will be failure of that course and possible withdrawal from the program.

Language Proficiency: In accordance with regulations established by the Senate of the University, all teacher candidates must demonstrate the ability to write clearly and correctly. Work which shows a lack of proficiency in the language of instruction is unacceptable for academic credit, and will either be failed or, at the discretion of the instructor, returned to the teacher candidate for revision to a literate level.

Late Penalties: Normally, the only acceptable reasons for late or missed assignments are illness (for which a doctor's statement may be required) or extreme compassionate circumstances. Unexcused late assignments will be penalized at a rate of 4% per day, and will not be accepted more than 7 days after the due date unless prior arrangements have been made with the instructor.

Academic Offences: Scholastic offences are taken *very seriously* in this professional Faculty. You are, after all, going to be a teacher. Read about what constitutes a Scholastic Offence at the following Web site: http://www.edu.uwo.ca/programs/preservice-education/documents/policies/WEB_ScholasticDiscipline.pdf.

Plagiarism: Plagiarism means presenting someone else's words or ideas as one's own. The concept applies to all assignments, including lesson and unit plans, laboratory reports, diagrams, and computer projects. For further information, teacher candidates may consult their instructors, the Associate Dean's Office, and current style manuals. Advice about plagiarism and how to avoid it can also be found on the Teacher Education website: http://www.edu.uwo.ca/programs/preservice-
Plagiarism-Checking:

a. All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting
plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com)
b. Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

Use of Laptops & Notebooks in Class: As a courtesy to members of the class, please put your cell phone on 'vibrate' or turn it off during class. Laptops and other electronic devices may be used in a professional manner to facilitate your activities in the course, but out of courtesy to colleagues and the instructor, please engage in personal networking and non-course communication only outside class time – before or after class, or at the break.

Appendix B: Board of Ethics Letter of Exemption

Western Research

June 23, 2016

Dr. Susan Rodger
Associate Professor
Faculty of Education
Western University

Dear Dr. Rodger,

Re: NMREB Project – Program evaluation of a new, mandatory online course in Fall/Winter 2016/2017 (5018 Mental Health Literacy).

Thank you for your call and email regarding the program evaluation of your new course 5018 Mental Health Literacy.

Within your email of June 14, 2016 you indicated that none of the planned data collection is happening outside of the course (everything is done as part of normal curriculum) including completion and grading of assignments, discussion and quizzes.

You have indicated that students will complete a pre-test and post-test but that it will help tailor the learning materials for this course in the future.

Based on this information, as this is being done as program evaluation and quality improvement of your course, the Tri-Council Policy Statement Article 2.5 indicates that ethics approval is not needed.

I wish you the best of luck with your work.

Most sincerely,

Grace Kelly
Ethics Officer
Office of Research Ethics

Appendix C: Measures

See following page for measurement items.

		Mental Health Literacy Questionnaire Rodger, Johnson, Weston and Hatcher (*in process*)		
Four Scales (45 items) Teaching in a mentally healthy classroom (TH, 26 items) Expectation (EX, 6 items) Professional relationships (PR, 9 items) Role Clarity (RC, 4 items)				
		I know……		
1	TH	Who to talk to when my student seems to be struggling with behaviours or emotions.		
2	TH	The steps to take to make a referral for my student who seems to be struggling with behaviours or emotions.		
3	TH	About the resources available in my community to support students' mental health		
		I can…		
4	TH	effectively address the situation wherein a student confides in me that he/she is contemplating suicide.		
5	TH	lead others to create effective supports for students who have had adverse experiences.		
6	TH	create a classroom that is physically safe for all students.		
7	TH	create a classroom that is emotionally safe for all students.		
8	TH	effectively teach students who have had adverse experiences, such as abuse, household dysfunction, or inadequate housing/nutrition/social support.		
9	TH	effectively teach/work with a student who is highly anxious.		
10	TH	communicate effectively with parents/family members about their child's behavior and emotions.		
11	TH	create positive relationships with parents or caregivers of my students who may be struggling with behaviour or emotions.		
12	TH	effectively teach students who seem overly sad.		
13	TH	adapt my curriculum or practices for students who are suffering from behavioral or emotional problems.		
14	TH	work with families who have done damaging things to their children.		
15	TH	cope with my own stress in my work as a teacher.		
16	TH	identify a student who is flourishing in the classroom.		
17	TH	identify a student who is languishing in the classroom.		
18	TH	identify a student who is mentally healthy in the classroom.		
19	TH	identify a student who is mentally unwell in the classroom.		
20	TH	explain the contextual factors that contribute to students' behaviours and emotions.		
21	TH	effectively explain to a colleague the early signs of a mental illness.		
22	TH	effectively explain to a colleague how to create a classroom environment that is supportive of students with behavioural or emotional problems.		

23	TH	create a classroom environment that is supportive of students with behavioural or emotional problems.
24	TH	contribute to a student support team process when the student in question has behavioural or emotional problems.
25	TH	access the resources available in my community to support students' mental health.
26	TH	I can help/support others (teachers) cope with their stress
		I have…
27	RC	a responsibility to promote the mental health of students.
28	RC	a responsibility to meet the needs of students with behavioural and emotional problems.
29	RC	a responsibility to meet the needs of students with mental illness.
30	RC	a responsibility to continue learning about the most effective ways to support students
		I will be…
31	EX	working with children/adolescents who are sometimes violent.
32	EX	teaching students who exhibit significant behavior problems.
33	EX	teaching students who exhibit significant emotional problems.
34	EX	teaching students who have multiple adverse childhood experiences.
35	EX	teaching students who have significant attention problems.
36	EX	teaching students who have significant learning problems.
		I know how to build relationships with…
37	PR	Students
38	PR	Parents
39	PR	administrators
40	PR	other teachers
		I am confident in my ability to ….
41	PR	Manage conflict with parents
42	PR	Manage conflict with students
43	PR	Manage conflict with administrators
44	PR	Manage conflict with other teachers
45	PR	Support students with their problems

Teacher Efficacy for Inclusive Practice (TEIP) Sharma, Loreman & Forlin 2011.		
Three scales (18 items) regarding efficacy in: C: Collaboration (6 items) MB: Managing Behaviour (6 items) II: Inclusive Instruction (6 items)		
1	MB	I can make my expectations clear about student behaviour.
2	MB	I am able to calm a student who is disruptive or noisy.
3	C	I can make parents feel comfortable coming to school.
4	C	I can assist families in helping their children do well in school.

5	II	I can accurately gauge student comprehension of what I have taught.
6	II	I can provide appropriate challenges for very capable students.
7	MB	I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs.
8	MB	I can control disruptive behaviour in the classroom.
9	C	I am confident in my ability to get parents involved in school activities of their children with emotional and behavioural problems.
10	II	I am confident in designing learning tasks so that the individual needs of students with emotional and behavioural problems are accommodated.
11	MB	I am able to get children to follow classroom rules.
12	C	I can collaborate with other professionals (e.g itinerant teachers or speech pathologists) in designing educational plans for students with emotional and behaviour problems.
13	C	I am able to work jointly with other professionals and staff (e.g. aides, other teachers) to teach students with emotional and behavioural problems in the classroom.
14	II	I am confident in my ability to get students to work together *in pairs or in small groups*.
15	II	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).
16	C	I am confident in informing others who know little about laws and policies relating to the inclusion of students with emotional and behavioural problems.
17	MB	I am confident when dealing with students who are physically aggressive.
18	II	I am able to provide an alternate explanation or example when students are confused.

Opening Minds Stigma Scale (15 item version)		
Modgill et al., 2014		
Three subscales (15 items) Attitude toward people with mental illness: 1, 9,10,11,13,15 Disclosure & Help Seeking: 3, 4, 5, 8R Social Distance: 2R, 6R, 7R, 12, 14R (high scores = higher stigma)		
1	Att.	I am more comfortable helping a person who has a physical illness than I am helping a person who has a mental illness.
2r	Soc.	If a colleague with whom I work told me they had a managed mental illness, I would be just as willing to work with him/her.
3	Dis.	If I were under treatment for a mental illness I would not disclose this to any of my colleagues
4	Dis.	I would see myself as weak if I had a mental illness and could not fix it myself
5	Dis.	I would be reluctant to seek help if I had a mental illness.

6r	Soc.	Employers should hire a person with a managed mental illness if he/she is the best person for the job.
7r	Soc.	I would still go to a physician if I knew that the physician had been treated for a mental illness.
8r	Dis.	If I had a mental illness, I would tell my friends.
9	Att.	Despite my professional beliefs, I have negative reactions towards people who have mental illness.
10	Att.	There is little I can do to help people with mental illness.
11	Att.	More than half of people with mental illness don't try hard enough to get better.
12	Soc.	I would not want a person with a mental illness, even if it were appropriately managed, to work with children.
13	Att.	Teachers do not need to be advocates for people with mental illness.
14r	Soc.	I would not mind if a person with a mental illness lived next door to me.
15	Att.	I struggle to feel compassion for a person with mental illness.

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VITA

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Masters, E. R. (2015) Gaps between service need and delivery (Review of the article
*Children First: Its time to change! Mental health promotion, prevention, and treatment
informed by public health, and resiliency approaches,* by Schwean, V., & Rodger, S.)

Masters, E.,R & Rodger, S., "Talking to Parents about Student Mental Health: Understanding
Parents' Perspective of Barriers and Enhancers to Effective Parent-Teacher Collaboration"
(2015). Electronic Thesis and Dissertation Repository. Paper 2828.
http://ir.lib.uwo.ca/etd/2828

Refereed contributions

Rodger, S., Bourdage, R., Hancock, K., Hsiang, R., **Masters, R**., & Leschied, A. (2019). *Supporting students: A GRADE analysis of the research on student wellness and classroom mental health support*. Los Angeles, CA: SAGE Publications. doi:10.1177/0829573516684069

Rodger, S., Leschied, P., **Masters, R.** (2018). TeachResiliency.ca: A New Resource for Teachers. Runner, *A Journal of the Health and Physical Education Council of the Alberta Teachers' Association* (49), 59-62.