Trauma and Violence-Informed Care: Evaluating the Impact on Teacher Candidate Attitudes and Intended Responses Towards Problem Behaviour of Students Affected by Trauma

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Abstract

Teachers have an important role in their student’s lives (Brunzell, Waters, & Stokes, 2015). It is important that pre-service teachers are provided with knowledge and skills to best support students that may be affected by trauma or systemic inequity, and to consider problem behaviour through an informed lens. Trauma and violence-informed care (TVIC) teaching practices are universally beneficial and necessary for students healing with the after effects of trauma and structural violence. In this program evaluation, 318 teacher candidates completed an online mental health literacy course including TVIC knowledge and skills. Participants’ attitudes related to trauma and their intended behavioural responses towards problem behaviour were examined before and after completion of the course. A repeated measures multivariate analysis of variance demonstrated a positive shift in attitudes and intended behavioural responses towards a more trauma and violence-informed lens. Implications for teacher education are discussed, and future areas of research are considered.

Keywords: teacher education, school-based mental health, trauma, structural violence
Lay Abstract

Teachers play an important role in their student’s lives; however, inadequate preparation is provided to ensure that teachers can meet the needs of all students. It is important that pre-service teacher education students (i.e., teacher candidates) are provided with knowledge and skills to best support their students. This includes students that may be affected by trauma or various social inequities (i.e., structural violence), such as racism and poverty. Teachers may be better equipped to understand and effectively respond to problem classroom behaviour after gaining knowledge and skills informed by research in trauma and violence-informed care (TVIC). TVIC teaching practices are beneficial to all students, and particularly important for those students that have been exposed to trauma, ongoing stress, and/or structural violence.

In this study, 318 teacher candidates completed an online mental health literacy course, which aims to promote mentally healthy classrooms and to enhance teachers’ TVIC knowledge and skills. The study found that teacher candidates’ attitudes shifted in a positive direction after completion of the course. This demonstrates an improvement in their understanding of trauma-related symptoms, the impact of social inequity, and the underlying causes of problem behaviour of students. The study also found an improvement in the way that teachers intend to respond towards problem behaviour of students, which is through supportive student-teacher relationships characterized by caring, flexibility, and safety, rather than rule enforcement and punishment. These findings suggest that the mental health literacy course is an effective way to provide TVIC knowledge and skills to teacher candidates. Other implications of these results for teacher education will be discussed, and possible areas of future research will be considered.
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I wish to acknowledge the strength and ongoing support provided by my peers; you all continue to motivate and teach me. To my parents, thank you for supporting me and always believing in my capacity to do this work. I stand on the strong foundation that you have built with your unconditional love and unwavering support and encouragement. I send my most heartfelt gratitude to my late grandmother, Christina Matthews – my greatest teacher.
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Teachers play an integral role in the healthy growth and development of their students. Students that have experienced traumatic events, chronic adversity, and structural violence are vulnerable to a myriad of biological, social, emotional, and behavioural impairments (Blaustein, 2013). Problematic classroom behaviour, therefore, could be a reflection of exposure to trauma and violence. As teachers play an important direct service role in the lives of their students (Brunzell et al., 2015b), it is important that preservice teacher education students (i.e., teacher candidates) receive relevant and high quality education in the area of trauma and violence-informed teaching practices. There is a gap in research on effective practices of educators when teaching school-aged children that are impacted by trauma (Alvarez, 2017; Cummings, Addante, Swindell, & Meadan, 2017; Maynard, Farina, Dell, & Kelly, 2019). This paper will begin with a literature review in the areas of trauma, adverse childhood experiences, structural violence, health equity, trauma and violence-informed care (TVIC), and teacher education. To build on this existing research, this study evaluated the impact of a mental health literacy (MHL) course containing TVIC on the attitudes and intended behavioural responses of teacher candidates towards students that may be affected by trauma and/or structural violence.

**Theoretical Framework**

This study is grounded in Bronfenbrenner’s (1979) ecological theory, which posits that human behaviour is influenced by interactions between a person and their environment, including their family and school systems, as well as their societal and cultural context (as cited in Crosby, 2015). Bronfenbrenner (1979) describes a person’s ecosystem as consisting of five levels from the most proximal microsystem, moving outward to the mesosystem, exosystem, macrosystem, and chronosystem (as cited in Crosby, 2015). Bronfenbrenner’s theory provides a
model that can be used to understand the various environmental factors influencing a student exposed to trauma.

Teacher-student relationships occur within the microsystem, which involves reciprocal social interactions within a person’s immediate environment (Bronfenbrenner, 1979). This study looked at the microsystem of students by examining shifts in teacher candidate attitudes and intended behavioural responses towards students, particularly students exhibiting problem behaviour. In addition, Crosby (2015) describes teachers’ access to educational and professional development opportunities as a part of the exosystem of a child, since this will indirectly influence the child. This system is directly addressed by providing education about TVIC for teacher candidates. The macrosystem is another key level of Bronfenbrenner’s (1979) ecological theory to consider, as it recognizes the influence of cultural context, including perceptions of race and status, on a child’s healthy development (as cited in Crosby, 2015). The impact of structural violence and social inequity on a student is explored, as this literature informs the structural violence-informed aspect of the MHL course and addresses the macrosystem with which a student exposed to trauma and violence lives.

The social determinants of health provide another conceptual framework that informs this research. In Canada, the social determinants of health include education, employment, food insecurity, housing, race, and other related socioeconomic factors that can account for health inequities in society (Gore & Kothari, 2012). Such determinants of health are linked with chronic disease across Canada, for example, those living in lower income neighbourhoods experience a higher rate of diabetes and a shorter life span than wealthier counterparts (Ling & Raphael, 2004; as cited in Gore & Kothari, 2012). In recognition of the social determinants of health, this study takes a broad, systemic view of health inequity, rather than pathologizing at the individual level.
As such, the study considers the impact of disparities in health equity and broader social conditions on a student’s ability to thrive in school. Accordingly, the teacher’s role in reframing and responding to problem behaviour is approached through universal precautions, rather than individual interventions.

The Theory of Planned Behaviour proposed by Ajzen (1991) provides a framework to understand the relationship between teacher attitudes and intended behavioural responses after completing the MHL course. Empirical studies and meta-analyses have supported the predictive validity of the theory of planned behaviour (Ajzen, 2011). According to this theory, teachers’ knowledge and attitudes, together with self-efficacy, influence their behavioural intentions and ultimately teaching practices towards students exposed to trauma (Woods, 2014). MacFarlane and Woolfson (2013) examined the link between teacher attitudes and behaviour towards children with special needs using the theory of planned behaviour as a model. The researchers found the teachers with more positive beliefs and self-efficacy had a higher level of behavioural intention to employ inclusive practices with special needs students and to learn new skills (MacFarlane & Woolfson, 2013). The Theory of Planned Behaviour provides a framework that guides this program evaluation.

**Literature Review**

**Prevalence and Impact of Trauma**

Trauma refers to experiences or events that are overwhelming, terrifying, and devastating, and result in feelings of shame and powerlessness (Alpert, Brown, & Courtois, 1998; EQUIP Health Care, 2017). Briere and Scott (2015) offer the following definition of trauma: “an event that is extremely upsetting, at least temporarily overwhels the individual’s
internal resources, and produces lasting psychological symptoms” (p. 10). Approximately 76% of Canadians have been exposed to a traumatic event at some point in their life (Van Ameringen, Mancini, Patterson, & Boyle, 2008) and 32% of adults in Canada have experienced childhood maltreatment (EQUIP Health Care, 2017). The Substance Abuse and Mental Health Services Administration ([SAMHSA]; 2014) describes trauma and mental illness as having a bidirectional relationship, as having mental illness increases the risk of being exposed to trauma, and traumatic stress increases vulnerability to exacerbating psychological symptoms. Briere and Scott (2015) suggest that child abuse and neglect are particularly strong risk factors for future psychological difficulties. Colman et al. (2013) found that childhood trauma increases the risk of depression and heavy alcohol consumption in a population-based and nationally representative sample of 3930 Canadian participants. Furthermore, the researchers found that adult individuals that had experienced recent stressful events were more likely to become depressed if they had reported experiencing trauma in childhood, as compared to those that had not experienced trauma (Colman et al., 2013). This study demonstrates the pervasive impact of trauma that can follow Canadian school-aged children into their adulthood.

The literature further shows the prevalence of trauma and the impact that trauma can have on a person’s psychological health. In a longitudinal study of 1420 school-aged children, 68.2% of children were reported to have experienced exposure to at least one traumatic event by 16 years of age and there was a strong positive association found between exposure to trauma and psychiatric disorders, especially anxiety and depressive disorders (Copeland, Keeler, Angold, & Costello, 2007). Romano, Babchishin, and Wong (2016) examined school-aged children’s victimization exposure (e.g., child maltreatment and exposure to family violence) and resulting trauma symptoms and behaviours (e.g., breaking rules and temper tantrums) in a community-
based sample of 138 caregiver participants in Ottawa and Gatineau, Canada. They found that 87.8% of children were reported to have experienced at least one victimization type, and the average number of lifetime victimization types experienced was 5.67 (Romano et al., 2016). The study found that greater lifetime exposure to victimization among school-aged children was associated with greater psychosocial difficulties, which was assessed by trauma symptomology and greater internalizing and externalizing behaviours (Romano et al., 2016). Romano and colleagues (2016) noted that the sample approximated the geographic region from which it was drawn, but cautioned against generalizing to other populations of school-aged children because it was a convenience sample. Despite this particular study limitation, the literature clearly demonstrates the pervasive nature of trauma.

**Impact of Trauma on a Child’s Brain**

Continuous exposure to traumatic events alter a child’s psychobiological development (Ko et al., 2008). When a child experiences a traumatic event their brain continues to react as if the threat is still present causing them to be hypervigilant and constantly on guard for additional threats (Australian Childhood Foundation, 2010; Perry, 2009; Ziegler, 2017). Perry (2009) explains that prolonged exposure to stress and trauma causes neural networks to adapt and change, which results in a more reactive stress response. In addition to creating hypervigilance, when a child experiences trauma their brain development is impaired, which impacts their ability to focus on learning and higher order executive functions like reasoning, decision making, and problem solving (Shonkoff et al., 2012). Morey, Haswell, Hooper, and De Bellis (2016) compared brain structure in maltreated youth with Post Traumatic Stress Disorder (PTSD), maltreated youth without PTSD, and a non-maltreated youth control group. The researchers found that maltreated youth with PTSD had a smaller right ventral medial prefrontal cortex...
(vmPFC) compared to the other groups (Morey et al., 2016). The vmPFC is responsible for emotional regulation, decision making, and other learning and retention functions (Morey et al., 2016). These findings demonstrate just some of the changes that may happen in the brain of a child exposed to trauma and the long-term and irreversible impact on functionality.

The impact of trauma on a child can be understood by the widespread effects of toxic stress. According to Shonkoff et al. (2012), “toxic stress, can result from strong, frequent, or prolonged activation of the body’s stress response systems in the absence of the buffering protection of a supportive, adult relationship” (p. 236). The National Scientific Council on the Developing Child (NSCDC) at Harvard University’s Center for the Developing Child (2014) reported that the brain’s architecture can be adversely impacted by exposure to toxic stress, and that chronic exposure during early development can disrupt the entire stress response system. The brain preserves energy for survival in cases of both toxic stress and trauma (Australian Childhood Foundation, 2010), so other functions are not prioritized. Also, Oberle and Shonert-Reichl (2016) demonstrated an association between elementary students’ physiological stress, as measured by salivary cortisol levels, and teacher burnout. The effects of student stress extend further than the individual child and create a stress contagion effect for teachers characterized by emotional exhaustion, less effective classroom management, reduced self-efficacy and workplace satisfaction, and less connection with students (Oberle & Shonert-Reichl, 2016).

Moreover, exposure to trauma impacts a child’s behaviour and interpersonal relationships (Rothì, Leavey, & Best, 2008), which will influence the ways that they interact in a school setting. Experiencing trauma or extreme stress can alter synaptic connectivity in the brain, which can inhibit a student’s ability to control aggressive or impulsive behaviour and reduce their ability to adapt appropriately to stressful stimuli in their environment (Garner, 2013). A loud
noise, flickering classroom lights, and an aggressive adult tone of voice might be perceived as stressful for most children, but there may be more severe consequences for children that have experienced trauma. The prefrontal cortex, amygdala, and hippocampus are structures in the brain that are all impacted by extreme stress (Garner, 2013), and these changes impact all forms of learning, as well as behavioural responses to future adversity (Shonkoff et al., 2012).

Additionally, Ko et al. (2008) found that ongoing exposure to trauma impacts psychobiological development, which can lead to engagement in risky behaviours and interpersonal relationship difficulties. Due to the constant state of hypervigilance, emotional self-regulation and articulating one’s feelings to others becomes difficult for children (Walkley & Cox, 2013). It follows that children who have had traumatic experiences may struggle to control their behaviour in the classroom and relate with other peers due to the changes in their brain.

**Impact of Trauma on Learning and Academic Performance**

The brain changes associated with trauma have a significant impact on a child’s ability to learn and reach their academic potential. It is common for students exposed to trauma to struggle to meet the academic demands of school due to socioemotional stressors and environmental triggers that continue to impair executive functions (Crosby, Howell, & Thomas, 2018). Researchers have found that exposure to trauma has a significant negative influence on academic achievement (Larson, Chapman, Spetz, & Brindis, 2017; Ko et al., 2008). Larson et al. (2017) reviewed empirical studies on the effects of chronic childhood trauma, including exposure to violence, on academic achievement and found that the strong relationship was mediated by mental health disorders, especially PTSD, depression, and anxiety. The researchers also found that children exhibiting aggressive behaviours demonstrated lower academic achievement (Larson et al., 2017). Holt, Finkelhor, and Kantor (2007) examined student victimization and
academic performance in an ethnically diverse sample of 689 fifth grade students across 22 urban schools in northeastern United States. The authors found that students with multiple victimization experiences had greater psychological distress and received lower academic grades (Holt et al., 2007), which further highlights the impact of trauma exposure on academic performance. Children with mental disorders are also absent from school more than children without mental disorders, and this absenteeism has a demonstrable effect on learning and school engagement (Lawrence, Dawson, Houghton, Goodsell, & Sawyer, 2019). Providing training in this area may help teachers to contextualize impaired academic performance and absenteeism.

Experiencing trauma hinders a child’s ability to learn and succeed in an academic setting, and due to externalizing behaviours, children may be subject to disciplinary actions and expulsion (Ziegler, 2017). A child experiencing internalizing behaviours might dissociate in the classroom or pretend to be ill, which can also be detrimental to a child’s academic performance (Ziegler, 2017). Mathews, Dempsey, and Overstreet (2009) examined the effects of community violence exposure on academic functioning for 47 low-income African American children. Of this sample, 98% of students had witnessed at least one type of community violence and 35% of students had been a victim of community violence. Exposure to community violence was found to have a significant negative relationship to school functioning, which was measured by academic performance and school absences (Mathews et al., 2009). The evident link between exposure to trauma and poorer academic performance further demonstrates the negative impact of trauma on school-aged children, and necessitates TVIC education for teacher candidates.

**Adverse Childhood Experiences**

To further demonstrate the impact of trauma one can look at the literature surrounding Adverse Childhood Experiences (ACES), which refers to traumatizing and distressing events,
including physical, sexual, and psychological abuse, household substance abuse, violence, mental illness, and family member imprisonment (Felitti et al., 1998). Kaiser Permanente and the Center for Disease Control and Prevention examined ACES in a sample of over 17000 adults between 1995 and 1997. The number of traumatizing events a child was exposed to was strongly associated with negative health outcomes and behaviours, including obesity, depression, suicide attempts, heart disease, cancer, and drug abuse (Felitti et al., 1998). These findings highlight the complexity and ongoing impact of trauma on a person’s psychological and physical health, as well as behaviours. Through Bronfenbrenner’s (1979) ecological theory, ACES can be understood as traumatizing events occurring within various levels of a child’s ecosystem. For example, maltreatment can occur within a child’s microsystem (e.g., physical and sexual abuse), domestic violence within the mesosystem, and a family member in prison would indirectly influence the child through the exosystem. There may be a compounding effect for children that experience adversity in multiple systems. According to Harvey (2007):

Drawing directly upon the ecological perspective of community psychology, this framework proposes that individual differences in traumatic response (and, indeed, in risk of traumatic exposure) are the result of complex interactions among person, event, and environmental factors. Interdependent and reciprocal interactions among these factors set the stage for more or less resilient and agentic responses to traumatic exposure… (p. 21-22).

A study by Cronholm and colleagues (2015) further highlights the interdependent interactions between various levels of a child’s environment. Higher rates of adversity have been found in lower income and racial minority populations (Cronholm et al., 2015). Cronholm and colleagues (2015) examined ACES and “Expanded ACES” (e.g., experiencing racism and witnessing
community violence) in a diverse sample, including 54.8% Black, Latino, and Asian participants. They found that 40.5% of participants reported witnessing community violence, 34.5% reported racial discrimination, and 27.3% reported living in an unsafe neighbourhood (Cronholm et al., 2015). This more racially diverse sample reported significantly higher rates of physical abuse, emotional abuse, household substance abuse, and domestic violence, as compared to the sample studied by Kaiser Permanente (Cronholm et al., 2015). These findings suggest that multiple ecological systems interact with one another to influence a child, and leads to a necessary look at the impact of structural violence.

**Impact of Structural Violence**

According to a social-ecological framework, trauma must be understood within a broader systemic perspective (Bronfenbrenner, 1979), and grounded in context and an understanding of social and structural inequity (Bronfenbrenner, 1979; Alvarez, 2017). Structural violence refers to systemic and interpersonal forms of violence, including family violence, discrimination, poverty, historical trauma, and other social inequities (Varcoe, Wathen, Ford-Gilboe, Smye, & Browne, 2016). These forms of violence and other environmental stressors can constitute a chronic source of trauma and can intensify the impact of pre-existing trauma at the individual level (Blaustein, 2013). For example, a child may have experienced maltreatment and also be living in poverty. Research has shown that symptoms of PTSD and clinical PTSD are common in children following exposure to a traumatic event, such as community and interpersonal violence (Jaycox, Langley, Dean, & Corporation, 2009). Furthermore, children exposed to violence in multiple social ecological domains over time, such as direct exposure to family violence and living in a violent neighbourhood, experience greater trauma and depression symptoms compared with children with direct victimization only (Voith, Gromoske, & Holmes, 2014). This
further demonstrates the importance of examining trauma and structural violence from a social ecological framework and supporting school teachers to do the same in their classroom.

Exposure to violence is associated with behavioural issues, depression, substance use, and lower academic performance (Jaycox et al., 2009). Children exposed to domestic violence experience a threat to their security and may have feelings of fear, shame, anger, and sadness, as well as being at greater risk for emotional and behavioural problems, such as aggression, bullying, and withdrawing (Baker, Jaffe, & Moore, 2001). Thus, problem behaviours exhibited by students in the classroom, such as engaging in aggressive interactions or failing to participate in activities, may be a reflection of a child’s exposure to violence. A study looking at the impact of exposure to family and community violence on children’s mental health found that family abuse was associated with PTSD, and community violence was associated with anxiety and aggression in children (Mohammad, Shapiro, Wainwright, and Carter, 2014). The sample included 91 Latino, African-American, and European-American school-aged children living in single-parent families and experiencing poverty. Over 93% of children reported exposure to at least one form of violence, 53% of children were exposed to at least two different types of violence, over 30% reported witnessing violence at school or in their neighbourhood, and 30% reported worry about safety where they live (Mohammad et al., 2014). These results signify not only the connection between structural violence and psychological distress, but the high degree of violence exposure to vulnerable populations of children.

Blitz, Anderson, and Saastamoinen (2016) examined teacher perceptions of race, culture, and trauma in students in an effort to inform a culturally responsive and trauma-informed approach towards teaching. Poverty, poor living conditions, and environment and family stress were identified as the main contributors to students’ behavioural and academic problems (Blitz et
The study found that over 43% of teachers were unable to complete class lessons and 62% of teachers reported five or more behavioural disruptions in the week studied (Blitz et al., 2016). There is a clear need to consider the widespread effects of structural violence on students and the impact on their behaviour. Furthermore, these findings highlight some of the challenges experienced by teachers to deliver the school curriculum, which may be due in part to structural violence exposure and its influence on student classroom behaviour.

**Problem Behaviour as an Adaptive Response**

Reactions to trauma demonstrate an individual’s normal and adaptive reaction to cope with an abnormal (traumatic) situation (SAMHSA, 2014). Traumatic experiences profoundly change a child’s belief that the world is safe (Brunzell et al., 2015b). So, it is important that problem behaviour is examined through the lens of a child’s perceived sense of safety at school and in their world. Existing literature notes that problem behaviours of students are not acts of defiance, but a result of irregular fear responses, chronic stress, and anxiety (Ko et al., 2008; Steele, 2017). Children exposed to trauma and chronic adversity have learned to prioritize survival skills and employ self-protective behaviours when faced with perceived threats (Blaustein, 2013), which could be identified in a facial expression, tone of voice, smell, or a number of other detailed aspects of their environment. Moreover, students affected by trauma have learned not to trust adults and to prioritize survival mechanisms over learning classroom lessons (Ziegler, 2017).

The fact that one cannot possibly know all of the potential environmental triggers for a child points to the importance of creating a safe and trauma-informed environment for all children. Universal precautions are necessary due to the high prevalence of trauma. According to Santor, Short, and Ferguson (2009), universal measures in school mental health are desirable for
the entire population (i.e., all students in the classroom), which means that students affected by trauma do not need to be specifically identified.

The belief that responses to traumatic experiences reflect adaptiveness, resilience, and self-preservation is a hopeful and strengths-based approach to take with individuals affected by trauma (SAMHSA, 2014). Existing research on the adaptive behaviours of individuals impacted by trauma have led to the creation of best practices. For example, in the Support for Students Exposed to Trauma program, the authors encourage teachers to maintain a compassionate and empathetic lens when student behaviour becomes disruptive, and to keep in mind that students affected by trauma are resilient and have developed coping strategies in response to traumatic experiences (Jaycox et al., 2009). Aggressive behaviour, which may include acting out in the classroom or engaging in impulsive behaviour, are often associated with PTSD symptoms (Jaycox et al., 2009). Similarly, SAMHSA (2014) recommends a trauma-informed perspective to view trauma-related symptoms and behaviours as “…an individual’s best and most resilient attempt to manage, cope with, and rise above his or her experience of trauma” (p. 13). In the proposed research study, it is predicted that teacher candidate attitudes will shift in this direction of viewing problem behaviour as adaptive responses to trauma that reflect the child’s best attempt at surviving and coping.

As mentioned previously, many children exposed to trauma will externalize their emotions, which results in problem behaviour and punitive action, or they will exhibit internalizing behaviours, which may appear as daydreaming or underachieving (Ziegler, 2017). Students exhibiting problematic behaviour in the classroom may be behaving in ways that have kept them safe from violence and perceived threats in their environment. It is important to consider that it is not only students exhibiting disruptive classroom behaviours that may be
experiencing mental health challenges and distress, or experiencing or witnessing violence (Rothi et al., 2008). In a qualitative study by Cummings et al. (2017), a common theme reported by community-based service providers was that adaptive behaviours in response to trauma appear differently across children based on their individual characteristics, environment, and particular trauma experienced. Thus, this study examined teacher candidates’ attitudes and intended behaviours towards problem behaviour of students, which may be generally defined as any externalizing or internalizing behaviours that may be a reflection of the student’s adaptation to trauma.

**Equity and Universal Design**

It is crucial that students affected by trauma receive appropriate and equitable support, so that they can thrive in school (EQUIP Health Care, 2017). Providing teacher candidates with education on TVIC allows problematic classroom behaviours to be viewed through a health equity lens, which can create a safer and more equitable learning environment for students affected by trauma and violence. Research on health equity provides a look at the importance of equitable practices when working with marginalized populations, such as individuals impacted by trauma or structural violence. Browne and colleagues (2012) examined the inequities found in primary health care centres in two of the lowest socio-economic neighbourhoods in Canada. TVIC was identified as one of four key dimensions of working equitably with marginalized populations (Browne et al., 2012). The authors describe TVIC as:

Recognizing that most people affected by systemic inequities and structural violence have experienced, and often continue to experience, varying forms of violence with traumatic impact. Such care consists of respectful, empowerment practices informed by
understanding the pervasiveness and effects of trauma and violence, rather than ‘trauma
treatment’ such as psychotherapy. (Browne et al., 2012, p. 5)

Other dimensions identified by the researchers included Inequity-Responsive Care, Contextually-
Tailored Care, and Culturally-Competent Care, which involves considering the impact of racism,
discrimination, and marginalization on a person’s health and quality of life (Browne et al., 2012).
It was concluded that enhancing equity-oriented services can result in greater health outcomes
and quality of life measures (Browne et al., 2012), which aligns with prior research on the social
determinants of health. These findings can be applied to an educational context, whereby TVIC
practices and equity-enhancing strategies are mobilized to improve the teaching practices
towards students that have been impacted by structural violence and trauma.

Trauma-informed educational practices may be viewed as a form of promotion of social
justice because of the focus on systemic and societal inequities (Crosby et al., 2018). Crosby et
al. (2018) advocate for trauma-informed teaching practices to “address some of the
disproportionate discipline and academic gaps in students’ experiences” (p. 16), and they
describe trauma-informed teaching as a potential solution to inequities in education. Flessa
(2007) similarly argues that teacher education promotes new teachers as “agents of social
change” (as cited in Froese-Germain, 2009) in an effort to mitigate the harmful effects of poverty
and education. The incorporation of health equity practices with TVIC practices inform the
mental health literacy (MHL) course material that was used in this study.

One way to achieve an equitable learning environment is through the Universal Design
for Learning (UDL) framework, which guides this program evaluation. A UDL approach ensures
that students are being taught in a way that is “necessary for some, but helpful for all” (S.
Rodger, personal communication, May 9, 2019). Due to the high prevalence of trauma, a
universal design approach to teaching is warranted to reduce barriers and maximize the potential for all students to thrive. According to Rappolt-Schlichtmann, Daley, and Rose (2012), the UDL framework assumes that learning is best supported when the entire system is considered. Problems with learning are not centered in individual children, but rather in the entire contextual landscape, including person-environment transactions (Rappolt-Schlichtmann et al., 2012). Since teachers cannot know each individual student’s trauma history or experience with structural violence, the MHL course frames TVIC through a universal design lens.

**Trauma-Informed and Violence-Informed Teaching Lens**

A trauma and violence-informed care (TVIC) lens does not ask a person “what is wrong with you”, but “what has happened to you, and may still be happening” (EQUIP Health Care, 2017; Steele, 2017). TVIC honours safety and empowerment of clients and a strong relationship with health care providers (Leitch, 2017). SAMHSA (2014) describes a TIC approach as understanding the prevalence of trauma, recognizing that trauma affects all individuals in a system, and putting knowledge into practice. TIC means being conscious of the impact of trauma on the brain, and the resulting influence on learning and behaviour (Steele, 2017), as well as preventing harm and re-traumatization, and creating safety and trust (EQUIP Health Care, 2017).

A TIC approach can be applied to teachers and students in a school context. Trauma-sensitive approaches make a positive difference to students in the classroom in terms of their learning ability and behaviour regulation (Steele, 2017). Adopting a TVIC lens takes further steps to acknowledge the structural violence that occurs within a student’s environment. TVIC involves awareness of the systemic and interpersonal violence that exists and may exacerbate a student’s experience of trauma (EQUIP Health Care, 2017). The TVIC approach is aligned well with Bronfenbrenner’s ecological theory (1979), as it recognizes the interactions between multiple
systems in a student’s life, such as a traumatic experience and student-teacher relationships in the microsystem intersecting with community violence in the macrosystem.

Teachers play an important and direct role in the lives of children exposed to trauma, and can provide a healing relationship (Brunzell, Stokes, & Waters, 2015). As outlined by Baker et al. (2001), one of the factors that help children cope with witnessing domestic violence is a strong and caring relationship with a trusted adult. Providing TVIC knowledge and skills to teacher candidates will potentially help them to provide support for students experiencing violence in their home environment. Throughout the Support for Students Exposed to Trauma program, student behaviour was found to improve as cohesion, comfort, and trust were built in the group (Jaycox et al., 2009). Goldman (2017) encourages educators to meet the needs of traumatized students through a loving and kindness approach. Steele (2017) highlights the importance of developing beliefs that are trauma-sensitive and conscious of the impact of trauma on the brain of students. In line with the Theory of Planned Behaviour (Ajzen, 1991; Woods, 2014), teachers’ beliefs towards behaviour of students impacted by trauma will influence behavioural responses towards these students, and this can support or impede their learning (Steele, 2017). Steele (2017) outlines several “brain-based, trauma-sensitive beliefs” that can help teachers shape healthy interactions with students exposed to trauma, including:

We believe that the challenging behaviors of anxious and traumatized students are not willful acts, but primary survival responses to an environment, activity, or person that is perceived or experienced as a threat. (So we remain proactive rather than reactive.) (p. 101)

Thus, viewing problem behaviour as adaptive is a key component to teaching through a TVIC lens. Teachers may play a significant role in the provision of support for students, especially
when teaching through a TVIC lens.

There is limited research that examines the shift in attitudes and intended behaviours of both preservice and in-service teachers after learning about TVIC knowledge and skills. There is some research pointing to the advancement in trauma-related knowledge for teachers. For example, the Healthy Environments and Response to Trauma in Schools (HEARTS) program is a multi-tiered trauma-informed intervention in California that has been evaluated for its effects on school staff trauma-informed knowledge, skills, and perception of student engagement (Dorado, Martinez, McArthur, & Leibovitz, 2016). Dorado et al. (2016) found that trauma-informed knowledge (e.g., knowledge about trauma and how to help traumatized children learn) and use of skills significantly improved for school personnel after the HEARTS professional development training.

Furthermore, after one year of HEARTS implementation the researchers found a 32% decrease in student behavioural problems, as measured by the total number of incidents of disciplinary office referrals, physically aggressive student incidents, and suspensions, and an 87% decrease in total incidents after five years of HEARTS implementation (Dorado et al., 2016). Dorado et al. (2016) concluded that the positive outcomes could be explained by an increase in knowledge about the effects of stress and trauma, which help staff to reframe problem behaviours of students, and an increased understanding of trauma-informed practices to help guide more effective and empathetic responses towards problematic behaviours. The researchers did not have a control group and they used a retrospective pre-post design to evaluate the program, which led them to discuss the possibility that this design is subject to inaccurate self-reports and social desirability effects (Dorado et al., 2016). Despite the study limitations, the findings suggest that professional development training for teachers can produce a positive shift
in trauma-related attitudes and practices, and these shifts can have a positive impact on students exposed to trauma.

In addition, Perry and Daniels (2016) provided a two-day professional development workshop to 32 staff participants – including regular education teachers, special education teachers, and teacher’s aides – at a low-income elementary school that provided knowledge about trauma, the impact of trauma on learning, and skills to apply this knowledge into practice. In this pilot study the researchers found that 94% of participants reported the training to be useful and 91% of participants reported an increase in knowledge about trauma, including a greater understanding of the pervasive impact of trauma, improved recognition of trauma symptomology, and improved integration of knowledge into existing practices (Perry & Daniels, 2016). These promising findings provided further support to the study hypotheses.

Bloom (2008) highlights the importance of creating a “trauma-informed culture”: “…our growing knowledge about the short and long-term effects of chronic stress and repetitive trauma requires a shift in the way we view all human problematic behavior” (p. 13). This study intended to meet a similar mission, as the MHL course was evaluated in part by the resulting improvement in teacher candidate attitudes shifting towards viewing problem behaviour as a form of adaptation to trauma.

**Student-Teacher Relationships**

The importance of a positive and healthy student-teacher relationship cannot be understated. A supportive and trusting relationship with an adult that can create a safe learning environment is a crucial factor in a child’s ability to cope and recover from adverse experiences and toxic stress (NSCDC, 2014). A “compensatory relational experience” is created when a child
is provided with consistency, validation of emotions, and positive connections, and these connections allow the child’s brain to integrate these experiences into alternative neuronal pathways (Australian Childhood Foundation, 2010, p. 45). In addition to helping children cope and experience positive connections, supportive student-teacher relationships have been found to be associated with a reduction of disciplinary action for students with exposure to trauma (Dods, 2013). Through Dods (2013) research examining youth perspectives, it was found that teachers’ awareness of challenges and needs of students exposed to trauma can support the relationship building process, and that students’ primary need is someone who cares. Expertise or clinical skills related to trauma are not what students are looking for from teachers, but they do want their teacher to provide a safe learning space, be willing to connect with all students, and demonstrate care and understanding (Dods, 2013). These findings lend support to the learning outcomes of the TVIC portion of the MHL course, as the goal is not to position teachers as clinicians or trauma experts.

The importance of student-teacher relationships is evident when looking at psychological outcomes in students. In the trauma-informed positive education (TIPE) model, positive and nurturing student-teacher relationships are purported to be a healing intervention that increase psychological resources for students that have experienced trauma and disrupted attachment (Brunzell et al., 2015a). Students affected by trauma will benefit from a relationship that is characterized by warmth, empathy, connectedness, and belonging, as this will help to repair disrupted attachment styles that can result from trauma (Brunzell et al., 2015a). Moreover, relationships characterized by compassion, caring, and safety have a calming effect on the stress response system of an individual, which helps them to thrive following exposure to trauma (Perry, 2009). Teacher-child closeness and classroom relational climate have been found to be
associated with better psychosocial development and adjustment in the classroom, which highlights the notion that teachers provide an “important relational context for the child” (Buyse, Verschueren, Verachtert, & Van Damme, 2009, p. 135). Buyse and colleagues (2009) conclude that intervention efforts have been overly focused on the individual child and should shift to a focus on the relational context (i.e., the classroom) in which children are embedded.

The aforementioned research points to the importance of healthy interactions occurring in a child’s microsystem, such as the relationship between a teacher and student affected by trauma. As illustrated by one of the participants in research conducted by Cummings et al. (2017), “…the classroom might be the only safe, secure setting the child experiences throughout the day…when a child might not have access to that much love and respect at home, at least we know we can give it to them [in the classroom]” (p. 2737). Most children spend a large proportion of their time interacting with their school teachers, so the potential for a healing student-teacher relationship is important to consider.

**Preservice Teacher Education**

Teachers feel ill-prepared to meet the complex needs of their students experiencing mental health difficulties and behavioural issues (Gibson, Stephan, Brandt, & Lever, 2014; Rothi et al., 2008), and feel a sense of duty to support these students (Rothi et al., 2008). Providing adequate TVIC education and MHL to teacher candidates may better prepare them to meet their students’ diverse needs. The Canadian Teachers’ Federation asked teachers about their preparedness to address student mental illness (Froese-Germain & Riel, 2012). When asked if they had received mental health-based professional development, 68.4% reported that they had not (Froese-Germain & Riel, 2012). Almost all teachers (97%) reported additional knowledge and training to recognize and understand mental health needs in students as an important need,
and 96% reported an important need for additional knowledge and skills training to help work with students with externalizing behaviour problems (Froese-Germain & Riel, 2012). Rothi et al. (2008) also found that lack of time dedicated to professional development on mental-health related training was reported as one roadblock faced by teachers. Teacher training for management of student behaviour occurs mostly on-the-job, and there is a lack of professional development in this area (Gibson et al., 2014). In a survey of educators by the Center for School Mental Health in Baltimore, Maryland (Gibson et al., 2014), teachers reported feeling least prepared to work with students with trauma, among other mental health problems. Due to unmet mental health needs of students, teachers experience an impact on classroom behaviour management, and report lower job satisfaction and psychological well-being (Rothi et al., 2008).

There is a clear need to provide additional quality preservice teacher education, particularly to address the needs of students impacted by trauma and structural violence.

The provision of a mandatory MHL course, which provides teacher candidates with knowledge and skills related to trauma and structural violence, may indirectly and positively influence school-aged children, as this constitutes a part of their larger exosystem (Crosby, 2015). Stormont, Reinke, & Herman (2011) explored teachers’ knowledge of 10 different evidence-based interventions (EBI) and resources available for students with behavioural and emotional difficulties. The study included 239 teachers from five school districts in Missouri, USA (Stormont et al., 2011). They found that most teachers had not heard of nine out of ten of the EBI, which led them to emphasize the importance of education for teachers to be able to meet the needs of students through implementation of EBI (Stormont et al., 2011).

Anderson, Blitz, and Saastamoinen (2015) provided trauma-informed workshops for 16 classroom support staff and used surveys and focus groups to learn about participants’
experiences. It was found that many participants lacked an understanding of the impact of adult behaviour on student stress, and most participants reported that they believe an aggressive tone is necessary to correct behaviour (Anderson et al., 2015). The shared experience of learning was viewed as beneficial and participants communicated a desire for more professional development opportunities to help address the needs of students with problem behaviour (Anderson et al., 2015). According to the Theory of Planned Behaviour (Ajzen, 1991), teachers’ beliefs and attitudes towards trauma will predict their behavioural responses towards students exposed to trauma, so an investigation of their attitudes and behaviours towards students is vital for teacher education and professional development (MacFarlane & Woolfson, 2013).

**Current Study**

The mental health literacy (MHL) course that acted as the intervention in the current study contains TVIC knowledge and skills, and is research-informed. Cunningham et al. (2014) conducted research on a sample of 1010 Canadian educators of elementary and middle schools, which validates the current study’s application to preservice teacher education. They reported that educators preferred professional development to be conducted by experts that focus on strategies that will improve the mental health of all students, and not just those exhibiting emotional or behavioural problems (Cunningham et al., 2014). These findings have been applied to the MHL course for teacher candidates through a universal design for learning (UDL) approach. Teacher candidates are an important population to receive TVIC education as they enter into the workplace. Rodger and colleagues (2014) explain the importance of teacher mental health education: “…it is during this time that we can have the most substantial impact on these emerging professionals; novice teachers acquire the resources (including knowledge, skills and attitudes) critical to their professional success” (p. 17).
Alvarez (2017) conducted a case study to gain an in-depth look at the perspective of an educator in an urban school setting that effectively used trauma-informed practices with his students that have been exposed to trauma. The researcher concluded that a broadening of educator capacity was needed to help teachers be adequately prepared to support students (Alvarez, 2017). Recognition of social and structural inequities impacting students and creating a healing space were identified as important trauma-informed practices for teachers, which aligns well with the TVIC portion of the MHL course. The current study aimed to support teachers through preservice education on TVIC, so that they can better meet the needs of students affected by trauma and structural violence.

**Research Questions and Hypotheses**

The purpose of this study was to evaluate the impact of trauma-informed and structural violence-informed teaching on teacher candidates’ attitudes and intended behavioural responses towards problem behaviour of students affected by trauma. The following research question guided the program evaluation: What is the impact of providing TVIC education to preservice teachers? More specific research questions included:

1. Can teacher candidates’ attitudes toward students’ problem behaviour improve after participating in a mental health literacy course containing TVIC education?

2. Can teacher candidates’ intended behavioural responses toward problem behaviour of students improve after receiving TVIC education?

The study hypotheses included:

1. Teaching TVIC in preservice teacher education will shift teacher *attitudes* towards viewing students’ problem behaviour as adaptive, rather than defiant.
2. Teaching TVIC in preservice teacher education will improve teachers’ intended 
*behavioural responses* to problem behaviour and symptoms of students exposed to 
trauma. Improved responses will emphasize relationships, kindness, and safety, rather 
than rule enforcement.

**Method**

**Participants**

The participants in this study included a sample of 318 second year preservice teacher 
education students (i.e., teacher candidates), the total number of teacher candidates enrolled in a 
mental health literacy course. Participants were recruited from the following course: Mental 
Health Literacy – Supporting Social-Emotional Development EDUC 5018Q at the Faculty of 
Education at Western University. This is a mandatory course for students enrolled in the 
Bachelor of Education program with the exception of those in the psychology cohort. A total of 
287 teacher candidates provided consent to participate in the research study. Matching pretest 
and posttest data existed for 235 teacher candidates. A breakdown of sample demographics 
appear in Table 1.
Table 1  
*Sample Demographics*

<table>
<thead>
<tr>
<th>Measure</th>
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<th>%</th>
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<td>Gender</td>
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<tr>
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<tr>
<td>Male</td>
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</tr>
<tr>
<td>Junior</td>
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<td>7</td>
</tr>
<tr>
<td>Intermediate</td>
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<td>11</td>
</tr>
<tr>
<td>Senior</td>
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<td>32</td>
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<tr>
<td>Masters</td>
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<td>3</td>
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<td>1</td>
</tr>
<tr>
<td>Missing</td>
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<td>14</td>
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<td>Previous Degree Subject</td>
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<tr>
<td>Science &amp; Health Science</td>
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<td>Psychology &amp; Child and Family Studies</td>
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<td>Social Sciences</td>
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<td>Arts and Humanities</td>
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<td>Religion/Divinity</td>
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<td>27</td>
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<td>Missing</td>
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<td>14</td>
</tr>
<tr>
<td>If yes, from where?</td>
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<td></td>
</tr>
<tr>
<td>Training, course, or workshop</td>
<td>59</td>
<td>24</td>
</tr>
<tr>
<td>University course</td>
<td>109</td>
<td>44</td>
</tr>
</tbody>
</table>
Measures

**Demographics Questionnaire**

A researcher-created demographics questionnaire was used to gather brief information about participants, including their gender, teaching and educational experience, and previous knowledge or training regarding mental health (see Appendix C).

**Teacher Attitudes and Responses Measure**

Participants’ attitudes and knowledge around trauma and violence-informed practices were measured using the Attitudes Related to Trauma-Informed Care Scale (ARTIC-35; Baker, Brown, Wilcox, Overstreet, & Arora, 2016), which is a validated measure. This scale includes 35 items with a Likert-type scale to measure participants’ beliefs along a spectrum between two options (see Table 2). The ARTIC-35 Scale contains five core subscales. Subscales of interest in this study included: (1) underlying causes of problem behaviour and symptoms, and (2) responses to problem behaviour and symptoms (Baker et al., 2016), as these subscales focus on attitudes and intended behavioural responses towards problem behaviour. The ARTIC-35 has strong internal consistency as measured by the total Cronbach’s alpha (α = .91) and test-retest reliability (Baker et al., 2016). The ARTIC-35 was reviewed by experts for alignment with TVIC principles, and found to have a good fit overall, except in two areas regarding health equity.

**Health Equity Measure**

The Equity-oriented Health Care Scale (E-HoCS) (Ford-Gilboe, Wathen, Browne, Varcoe, & Perrin, 2017) was designed to measure the quality of equity-oriented care given at primary health care clinics. It was adapted by this research team to address a gap identified in the ARTIC-35 Scale, namely the inadequacy of items encapsulating structural violence. To address
this identified gap, four items from the E-HoCS were added to the ARTIC-35 Scale, including two items of interest in this study (EQUIP Health Care, 2017; see Table 2).

Table 2
Sample Items from ARTIC-35 (Baker et al., 2016) and E-HoCS (Ford-Gilboe et al., 2017)

<table>
<thead>
<tr>
<th>Measure</th>
<th>“For each item, select the circle along the dimension between the two options that best represents your personal belief during the past two months...”</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (1)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

| ARTIC-UC | Students could act better if they really wanted to. | Students are doing the best they can with the skills they have. |
| ARTIC-RES | Helping a student feel safe and cared about is the best way to eliminate undesirable behaviours. | Administering punitive consequences is the best way to eliminate undesirable behaviours. |
| E-HoCS | It’s important that I ask students about basic resources that affect their well-being, such as food, clothing, or shelter | Students’ personal situation is their own business. |
| E-HoCS | Students are a product of their environment and background so I can expect certain students to behave a certain way. | It’s important to get to know each student to understand their context and how it might shape their behaviour. |

Note. ARTIC = Attitudes Related to Trauma-Informed Care Scale; ARTIC-UC = Underlying Causes of Problem Behaviour and Symptoms; ARTIC-RES = Responses to Problem Behaviour and Symptoms; E-HoCS = Equity Health-Oriented Care Scale

Procedure

Recruitment and Pre-Measures

A recruitment email (see Appendix A) was sent to every teacher candidate enrolled in the mental health literacy course by the manager of teacher education through the Teacher Education Office in the Faculty of Education at Western University. The recruitment email provided
general study information and researcher contact information. At this point teacher candidates also received a Letter of Information and Informed Consent (see Appendix B). Those interested in participating in the research study were provided with a Qualtrics link to provide consent for their pretest and posttest data to be collected and analyzed for research purposes. A record of consent was stored in each participant’s data file.

Participants were not required to share their data for the research study in order to take part in the mental health literacy course; however, completion of the pretest and posttest was a part of participation in the course. Participants received 5% towards their final course grade for completing the pre-measures and another 5% for completing the post-measures. All participants were sent a Qualtrics link to the pre-measures via email, including the demographics questionnaire, ARTIC-35 Scale, and adapted E-HoCS. The pre-measures took participants approximately 30 minutes to complete.

**Mental Health Literacy Course**

The mental health literacy (MHL) course for teacher candidates is a mandatory course for those not enrolled in the psychology cohort. The course took place online for a duration of 12 weeks during the 2018-2019 school year. The course was instructed by Dr. Susan Rodger, an expert in the field of school and child mental health, teacher education, and trauma and violence-informed care (TVIC). The MHL course was designed by a team of teachers and mental health experts to develop preservice teacher competencies needed to provide mentally safe, culturally-informed, and trauma and violence-informed classroom environments. As a basis for the MHL course design, a comprehensive framework for pre-service professional preparation of teachers was used (Weston, Anderson-Butcher, & Burke, 2008). This framework includes teacher mental health competencies, core values, and proposed teacher dispositions, such as the commitment to
supporting the growth of all students and the commitment to diversity, tolerance, and respect (Weston et al., 2008).

Throughout the course, teacher candidates gained an understanding of school mental health, access to care, structural violence, trauma, and the effects of these various issues on students’ ability to learn, as well as an awareness of the warning signs that students are in need of support. Teacher candidates learned about the principles of TVIC and how these may be applied in the context of the classroom. The course, including the weeks related to TVIC, was designed to be interactive and engaging. Weekly course content was provided through various modalities, including discussion forums, case studies, online games, videos, podcasts, quizzes, and video assignments. Materials provided during the course included information about teacher well-being, mental health literacy, and trauma. Some specific materials provided to teacher candidates included a vicarious trauma handout (see Appendix D), TVIC handout (see Appendix E), and Trauma Walk-Through exercise (see Appendix F).

Previous studies evaluating the effectiveness of this course have found that teacher candidates reflect more than just the expected learning outcomes by the end of the course (Atkins & Rodger, 2016). The online format may be beneficial, as it allows teacher candidates to feel more comfortable disclosing personal experiences and may provide a sense of community and mutual learning (Atkins & Rodger, 2016).

**Post-Measures**

A Qualtrics link to the post-measures was provided via email to all participants at the conclusion of the MHL course to be completed by a specific date. Post-measures included the
ARTIC-35 and E-HoCS items, and data was matched with pretest data based on the teacher candidate’s unique identifier. The post-measures took between 25 and 30 minutes to complete.

**Data Analyses**

As directed in the ARTIC-35 scoring directions, items were reverse coded and subscale scores were calculated. The research team examined the data set for missing data; where participants had more than 20% missing data, their data was excluded.

The response rate was 90% (N=287; see Table 1), with matching pretest and posttest data for 235 teacher candidates. A mean item score was calculated for each item of interest (i.e., 5 items on each ARTIC-35 subscale and 2 items from the E-HoCS).

A repeated measures multivariate analysis of variance (MANOVA) with Bonferroni correction was used to analyze within-group differences with time as the independent variable. The two chosen subscales of the ARTIC-35 and the items added from the E-HoCS acted as the dependent variables. The repeated measures MANOVA allowed the comparison of mean survey scores from pretest (i.e., before the course or time 1) to posttest (i.e., after completion of the course or time 2).

**Results**

Demographic information on all participants can be found in the Method section. The means and standard deviations for each measure are found in Table 3.

The multivariate effect of time was significant, $F(3,233) = 46.03, p < .001$. Subsequent univariate tests indicate significant effects for time on all three measures of interest. Scores on the Underlying Causes of Problem Behaviour and Symptoms subscale increased from time 1 to
time 2, $F(1, 235) = 94.21, p < .001$. Scores on the Responses to Problem Behaviour and Symptoms subscale also increased from time 1 to time 2, $F(1, 235) = 99.48, p < .001$. Scores on the E-HoCS scale increased from time 1 to time 2, $F(1, 235) = 10.44, p < .001$. Multivariate and univariate results are presented in Table 4.

Table 3

Scores on the Measures of Interest at Time 1 and Time 2

<table>
<thead>
<tr>
<th>Measure</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Underlying Causes of Problem Behaviour and Symptoms (UC) T1</td>
<td>248</td>
<td>5.30</td>
<td>.77</td>
<td>2.86</td>
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<td>.70</td>
</tr>
<tr>
<td>UC T2</td>
<td>272</td>
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<td>.77</td>
<td>3.00</td>
<td>7.00</td>
<td>.76</td>
</tr>
<tr>
<td>Responses to Problem Behaviour and Symptoms (RES) T1</td>
<td>248</td>
<td>5.28</td>
<td>.84</td>
<td>2.29</td>
<td>7.00</td>
<td>.73</td>
</tr>
<tr>
<td>RES T2</td>
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<td>.89</td>
<td>1.86</td>
<td>7.00</td>
<td>.79</td>
</tr>
<tr>
<td>E-HoCS T1</td>
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</tr>
<tr>
<td>E-HoCS T2</td>
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<td>.92</td>
<td>1.75</td>
<td>7.00</td>
<td>.78</td>
</tr>
</tbody>
</table>

Notes. *ARTIC-35: measured on a 7-point response system and indicating “... the dimension between the two options that best represents your personal belief during the past two months at your job.”

**E-HoCS: 2 items chosen by experts to measure the specific domain of Structural Violence; as a group they make the scale, measured on same 7-point response scale as ARTIC-35.
Table 4

*Univariate Analyses for Subscales of the ARTIC-35 and the E-HoCS*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-HoCS</td>
<td>F (1, 235) = 10.44, $p &lt; .001$</td>
</tr>
</tbody>
</table>

*Equity Health-Oriented Care Scale*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Partial $\eta^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>UC</td>
<td>F(1, 235) = 94.21, $p &lt; .001$</td>
</tr>
<tr>
<td>RES</td>
<td>F(1, 235) = 99.48, $p &lt; .001$</td>
</tr>
</tbody>
</table>

*Attitudes Related to Trauma Informed Care*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Partial $\eta^2$</th>
</tr>
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<tbody>
<tr>
<td>UC</td>
<td>F(1, 235) = 94.21, $p &lt; .001$</td>
</tr>
<tr>
<td>RES</td>
<td>F(1, 235) = 99.48, $p &lt; .001$</td>
</tr>
</tbody>
</table>

*Notes.* Multivariate analysis: F (3,233) = 46.03, $p < .001$

* ARTIC-UC = Underlying Causes; ARTIC-RES = Responses to Problem Behaviour and Symptoms; E-HoCS = Equity Health-Oriented Care Scale*
Discussion

This study sought to evaluate the impact of a mental health literacy (MHL) course including trauma and violence-informed care (TVIC) knowledge and skills on both: (1) teacher candidates’ attitudes and knowledge related to trauma, and (2) teacher candidates’ intended behavioural responses towards problem behaviour of students that may be affected by trauma and/or structural violence. From a universal design approach, this study positioned TVIC knowledge for teachers as beneficial to all students, but necessary for those affected by traumatic experiences, structural violence, and other forms of systemic oppression and inequity. The study found that the MHL course was effective in changing both teacher candidates’ attitudes and intended responses. Results demonstrated a significant and positive shift towards viewing problematic student behaviour through a TVIC lens.

Improvement in Attitudes and Intended Behavioural Responses

The significant shift in both attitudes related to trauma and intended behavioural responses towards problem behaviour suggests that the MHL course is an effective way to provide TVIC education to teacher candidates. Scores on items from the E-HoCS did not improve dramatically; however, the addition of these items was a preliminary start at reflecting the additional component of structural violence and inequity. In response to the first research question: teacher candidates’ attitudes toward the underlying causes of students’ problem behaviour and trauma-related symptoms can improve after participating in the MHL course. Teacher candidates’ attitudes shifted towards viewing problem behaviour through the context of a child’s best attempt to cope and adapt with trauma and/or structural violence, rather than viewing their behaviour as intentional and fixed. Robertson (2018) writes that rather than
viewing externalizing behaviours as acts of defiance, a child’s behaviour is understood as a reflexive and adaptive attempt to feel safe (Romero, Robertson, & Warner, 2018).

After the MHL course, teacher candidates’ intended behavioural responses toward problem behaviour and symptoms related to trauma also shifted in a positive direction. This shift in intended behaviour is characterized by the emphasis of strong student-teacher relationships that prioritize caring, flexibility, and safety, rather than an emphasis on rules and consequences. Reupert (2020) describes the influence of teacher attitudes and interpretations of student behaviour and the need for a reconceptualization of problem behaviour:

The behaviour that some children exhibit may be entirely appropriate given the child’s previous experiences and the context in which it is placed…. How we interpret a child’s behaviour will have direct implications for our response…. if we see a child misbehaving, punishments or consequences often follow…. if we perceive a child’s behaviour as an attempt at communicating basic needs or struggling with expectations, then we change our own behaviour accordingly. (p. 82)

A teacher that is informed by TVIC principles believes that all students should be treated with respect, understanding, and kindness from the start. Reupert (2020) states that adequate responses to problem behaviour can only occur after assuming a position of understanding. Based on Ajzen’s (1991) Theory of Planned Behaviour, an improvement in teacher attitudes will translate to an improvement in behavioural responses, which suggests that teacher candidates may apply TVIC knowledge gained through the MHL course into their classroom practices.

The MHL course acted as the intervention in this study. The results suggest that the course was effective as a tool to educate teacher candidates about TVIC. Teacher candidates
learned TVIC concepts and worked together to apply these concepts to case studies of students experiencing various forms of trauma and marginalization. The Trauma Walk-Through exercise included a series of questions designed to guide educators through the social and physical school environment (e.g., classroom, hallways, etc.) to assess for cultural and emotional safety for all students (see Appendix F). The questions encouraged deep reflection about the daily experience of students affected by trauma from the time they arrive at school until they go home. It is likely that the content provided during the MHL course, as well as the various activities designed to apply concepts to practice, contributed towards the positive shift in trauma-related attitudes and behavioural responses.

**Equity-Oriented Teaching**

It is important to look beyond program evaluation and to consider the real-life implications for the resulting shift in attitudes and behaviours. Viewing problematic classroom behaviours through a health equity and TVIC lens can create a safer and more equitable learning environment for students impacted by structural violence. This may include students coping with poverty, racism, discrimination, historical or intergenerational trauma, family violence, or any combination of systemic oppression. It is important that teacher education programs recognize that children and schools are embedded within social structures and systemic inequity.

Haberman, Gillette, and Hill (2018) assert that teachers must connect classroom behaviour with society’s structural factors and approach teaching through an equity-oriented and social justice lens. To even the “educational playing field”, teachers must account for the structural inequalities of students living in poverty and underserved communities (Haberman et al., 2018, p. 10). Student behaviours must be understood within their context and not pathologized at the individual level (Reupert, 2020). This shifts the attitude from viewing a child...
as problematic towards viewing their circumstances and sociopolitical context as problematic. Haberman and colleagues (2018) explain that teachers ought to demonstrate an understanding that problem classroom behaviour may be connected with toxic stress, basic needs not being met, and “multiple adverse synergistic risk factors that affect the mind, body, and soul of individuals” (p. 31). When teachers are knowledgeable about the impact of structural violence on students, behaviour can be viewed through the context of a child’s everyday reality.

From a neurobiological perspective, students’ problematic behaviour can be understood as a possible product of biological changes due to ongoing trauma or chronic stress related to structural violence. For example, epigenetic changes in the brain can result from intergenerational trauma, which causes the hypothalamic-pituitary adrenal (HPA) axis to malfunction in response to ongoing stressors in a child’s life (Siegel, 2012). The HPA axis, an important component of the brain’s stress response system, is repeatedly activated when a person experiences chronic stress (Harvard Health Publishing, 2018). With a disrupted stress response, children impacted by trauma or toxic stress may become less able to cope with ongoing relational stressors, which may result in poorer functioning in the school environment and in peer relationships (Siegel, 2012). As such, students that are impacted by intergenerational trauma (e.g., an Indigenous child whose parents were traumatized by residential schooling), as well as children living in poverty, and children exposed to ongoing community violence may respond to stressors in ways that pose challenges for their teachers. When a teacher can situate problem classroom behaviour within the context of ongoing systemic injustice and toxic stress, the learning environment becomes more equitable and safe.
**Equitable Practice**

If teacher candidates continue to learn to respond to student behaviour in an equity-oriented way, then important systemic change can start to happen. Disparities in disciplinary action towards problem behaviour of students reflect the pervasive nature of racism and other forms of oppression and marginalization. Racialized students, particularly males, are more likely to be suspended and expelled from school compared to their White peers (Haberman et al., 2018). There is also a three times greater rate of expulsion from school for Black students compared to White students (Haberman et al., 2018). Intersecting with racism are the disproportionately negative outcomes for students that are living in financially poor communities (Blitz, Yull, & Clauhs, 2020).

As teachers gain an understanding of the impact of racism and other forms of ongoing structural oppression, this systemic lens may lead to more equitable teaching practices. Practicing from a basis of TVIC allows disciplinary action towards problem behaviour to build resiliency and teach prosocial behaviour, whereas using harsh punishments can be re-traumatizing (Blitz et al., 2020). Blitz and researchers (2020) aptly state: “A discipline response that ignores the meaning of structural inequities risks reifying oppression” (p. 116). Robertson (2018) asserts that teaching from an equity framework and culturally responsive lens mitigates the effects of trauma and oppression, and creates a space where students are able to heal and become more resilient (Romero et al., 2018). Teachers are in a position to become drivers of social change in their school and community, which is just one of the positive long term consequences that can result from TVIC education. The idea of teachers as vehicles of positive change will be elaborated upon in connection to relationship-based education.
Universal Design for Learning Approach

Similar to the universal precautions concept in health care (EQUIP Health Care, 2017), in a universal design for learning (UDL) approach to teaching, this awareness and increased understanding benefits all students and does not require teachers to become familiar with each individual student’s lived experiences. Teachers do not need to be certain that an individual child has experienced trauma to be able to recognize trauma-related symptoms that may manifest as physical, behavioural, emotional, or cognitive changes (e.g., recurring complaints of a stomachache, social withdrawal, increased aggression, or appearing blank and unfocused). Craig (2017) writes: “Teachers don’t have to mention trauma to be trauma-sensitive” (p.74), which highlights the difference between acting as a mental health professional and teaching through a TVIC lens. Moreover, the impact of adverse childhood experiences (ACES) on students vary widely based on a number of factors, including race or ethnicity, socioeconomic status, and individual development, and children may learn to adapt with various forms of trauma and adversity in different ways (Jennings, 2019). So, teachers may be best prepared to support their students through practices that are universally helpful. A UDL approach may even provide teachers with a sense of relief, as they need not change their teaching practices for each individual student.

Craig (2017) writes about classroom management in trauma-sensitive schools and the policies and procedures created to ensure students managing the effects of trauma are kept safe and supported to be successful. These policies related to discipline and safety also benefit students in the class who may be affected by the behaviour of their classmates (Craig, 2017). Blitz and colleagues (2020) note that school climate is affected when a school has many students managing the effects of toxic stress; universal supports become even more relevant. It can be
argued that teaching TVIC principles to teacher candidates will spread into classrooms positively impacting all students; this positive ripple effect does not require teachers to operate outside of their scope of practice when interacting with their students that may be affected by trauma.

**Implications for Teacher Education**

*Teacher Preparedness*

It is well-documented that teachers do not feel adequately prepared to meet the needs of students impacted by trauma or other mental health concerns (Gibson et. al, 2014; Froese-Germain & Riel, 2012; Rothè et al., 2008). The increasing rate of attrition of new teachers in the profession demonstrates the reality that teachers are provided with insufficient skills to prepare them to meet their students’ needs (Weston et al., 2008). A recent study by Blitz and colleagues (2020) found that teachers and school staff, while compassionate towards students, lack some of the skills necessary to address problem behaviour and respond to social and emotional needs. The current study examines the important role of teacher education in providing teacher candidates with knowledge and best practices in the area of trauma and structural violence. Haberman and colleagues (2018) argue that teacher candidates need to be better prepared to work with the most vulnerable students, and that teacher education programs “must prepare and continue to develop teachers who understand how social structural inequality operates… who are excellent teachers for all students, and who are committed to a more just and equitable world” (p. 159). This mission aligns well with the learning objectives of the MHL course evaluated in this study.

When teachers are prepared, they are generally rated as more successful with students, as compared to teachers who are not prepared (Darling-Hammond, 2000). It is clear that teachers
feel ill-equipped, and that adequate preparation is important. The study results suggest that the MHL course serves as an effective means to meeting this need. The current study contends that receiving TVIC education will better prepare teachers to meet the learning and emotional needs of students by learning practices that contribute towards the success of every student.

**Shaping Teacher Attitudes**

Darling-Hammond (2000) argues that teacher education must develop teachers’ ability to view the world through the lens of a diverse student population, as this process of understanding others is not innate. This includes students that have a range of life experiences different from those of their teachers. Darling-Hammond (2000) argues: “Developing the ability to see beyond one’s own perspective, to put oneself in the shoes of the learner and to understand the meaning of that experience in terms of learning, is perhaps the most important role of universities in the preparation of teachers” (p. 170). Teacher attitudes and responses also influence the attitudes and responses of their students. Research has demonstrated that students are more engaged and view their teachers as more competent when teachers are empathic, caring, understanding, and responsive (Teven, 2001, 2007). The current study demonstrates that a positive shift in teacher candidate attitudes, towards a more empathic and equity-oriented lens, is possible through TVIC education.

**Relationship-Based Education**

Relationship-based education provides a framework to understand the behavioural responses that would reflect a teacher’s understanding and awareness of the impacts of trauma. Teacher education about TVIC may contribute to increased empathy and understanding towards students, which is beneficial for all and particularly crucial for the success of students with
adverse childhood experiences (ACES) or those facing systemic oppression. As previously highlighted, a relationship characterized by empathy and connectedness may help to repair disrupted attachment resulting from traumatic experiences (Brunzell et al., 2015a), and a more compassionate and caring attitude from teachers can calm the stress response of students (Perry, 2009). When teachers foster caring relationships with students, show an interest in their lives, and acknowledge their successes there are positive effects on their learning, academic success, and well-being (Reupert, 2020).

Teaching is widely viewed as a relational practice at its core (Reupert, 2019; Tranter, 2019; Kearns & Hart, 2017). Research in the United Kingdom supports the idea that teaching is a relational activity where caring attitudes toward students can help to meet the emotional, attachment, and learning needs of more vulnerable students (Kearns & Hart, 2017). Teachers may provide a secure base that is sensitive to a variety of attachment needs, and this helps in the development of all children, not just those facing adversity (Kearns & Hart, 2017). This research provides further support for a UDL approach to TVIC teacher education, and emphasizes the healing nature of a student-teacher relationship.

While TVIC education does not position teachers as therapists to their students, there are similarities between the therapist-client relationship and student-teacher relationship that can be considered. Like the therapeutic relationship in psychotherapy, teachers can provide a healing relationship in their interactions with students. Strong interpersonal relationships can contribute towards integration and healing the effects of trauma (Siegel, 2012), which speaks to the importance of responding to students in compassionate and caring ways. As previously noted, teachers may provide a compensatory relational experience with their students that contributes towards the integration of traumatic experiences and neural changes (Australian Childhood
Foundation, 2010). Bell, Limberg, and Robinson III (2013) describe educators as trusted figures that can play a role in promoting a child’s recovery. According to Tranter (2019), the director of The Centre for Relationship-Based Education, teachers can be a source of healing and protection for students that have experienced ACES by fostering caring relationships. Tranter (2019) asserts: “Genuine, caring and responsive relationships need to form the core of modern teaching” (para. 16). Rather than collecting various techniques and strategies, teachers are encouraged to view themselves, and their ability to form meaningful and caring relationships with students, as their strongest tool (Tranter, 2019). The relationship itself becomes the driver of positive change for students.

**Applications to School Mental Health**

The current study contributes toward a greater understanding of the importance of research in school mental health. Due to the fact that most children attend school, teachers are in a key position to influence the healthy development of children and to act as “prevention and promotion specialists” in their classroom (Weston et al., 2008). Educators are considered to be in an ideal place to discern trauma-related changes from a child’s typical disposition and behaviour (Bell et al., 2013). According to Jennings (2019), educators are more likely to notice signs of trauma than other service providers in the community because of the greater length of time spent with children in schools. Jennings (2019) refers to school as “…a place where healing can begin under the right conditions” (p. 64). It can be argued that providing TVIC knowledge and skills to pre-service and in-service teachers can help to create these conditions.
Limitations of Current Study

It is important to consider the various limitations of this study. Social desirability response bias may have influenced the teacher candidates’ responses on the ARTIC-35 or E-HoCS items. Participants may have responded to reflect a more favourable and socially acceptable attitude, thus producing less accurate results. To combat this response bias, pretest and posttest data were connected with a unique identifier to maintain anonymity. While answering the pre- and post-measures was a mandatory component of the course, participants were given the option not to share their data for research purposes. Another limitation to consider is that the study results may have been influenced by other formal or informal learning opportunities taking place alongside the MHL course, such as teaching placements or other courses that include TVIC information. Because of these history effects, it cannot be stated that improvements in scores were solely due to completion of the MHL course.

In addition to response bias and history effects, the chosen measures and quantity of measures may have contributed to study limitations. Data triangulation through the use of multiple measures of trauma-related attitudes and behaviours was not utilized. Using additional scales with the ARTIC-35 may have provided a broader or more nuanced understanding of the shifts that take place after the MHL course, thus supporting the internal validity of the study. Furthermore, the preliminary E-HoCS measure, which was used to capture the structural violence component, was developed by the research team and has not been validated.

Threats to external validity should be considered, particularly overgeneralization of study results. The sample of participants included preservice teacher education students at one university in South Western Ontario. Additionally, the sample represents a relatively privileged population that have been able to succeed academically despite any sociopolitical barriers. These
results do not necessarily generalize to teacher candidates at other universities or colleges, or those in other areas of the province or country, including marginalized communities.

There are a number of factors that were not included in this study, which may contribute toward the successful translation of attitudes into practice. A positive shift in trauma-related attitudes does not necessarily lead to a positive shift in behaviours, and intended behavioural responses are not always actualized. Administrative support, for example, may help or hinder a teacher’s efforts to implement TVIC knowledge into their teaching practices. Blitz and colleagues (2020) found that teachers lacked confidence in their administrators’ understanding of the pressure they face daily in managing their classroom. Other contributing factors to consider include support from colleagues, teachers’ personal experiences with trauma or mental health, experiences of vicarious trauma and burnout, and the location of the school (e.g., urban versus rural setting). These are just some of the areas that can be further investigated in ongoing studies.

**Strengths of Current Study**

Despite the aforementioned limitations, this study has a number of strengths, as it contributes to an area of research that is currently underdeveloped. Due to the high prevalence of trauma and students impacted by various forms of systemic oppression, the current research has major implications for a large population. If teachers can receive more adequate training to meet the needs of their students affected by trauma, and this fosters the well-being and achievement of all students, than this is a critical area to devote resources and attention. Research has demonstrated that teachers feel underprepared and overwhelmed in regards to teaching students facing mental health challenges and other emotional barriers to learning at their best; moreover, teachers have indicated a need and desire to attain the knowledge and skills necessary to better respond to their students (Weston et al., 2008).
This study provides an important preliminary step towards better understanding the influence of trauma and violence-informed teaching attitudes and practices. The study findings provide some evidence that TVIC material can be successfully learned. With the current knowledge of the prevalence of trauma and the effects of both interpersonal and structural violence on children, the inclusion of TVIC material appears to be warranted. Weston and colleagues (2008) note that schools typically do not consider complex issues, including exposure to trauma, family instability, and poverty, that have a detrimental effect on a child’s ability to learn. An aspect of the current study that adds to its relevance is the inclusion of an equity focus and acknowledgement of structural violence as a form of toxic stress that influences student behaviour. The literature has mainly focused on the impacts of trauma on student behaviour, while the systemic, ongoing factors are less frequently studied. An examination of teacher attitudes related to trauma and structural violence is researched even less so.

Next Steps for Research

Future directions for research include a one year follow-up with the study participants to measure the utility of TVIC knowledge and practice that was gained in the MHL course. This follow-up study is currently set to take place in April 2021. This follow-up research may provide information about how well teacher candidates retained TVIC principles, and the impact of this knowledge on their behaviours within a classroom environment (e.g., in a teaching placement). Conducting qualitative or mixed methods research on this topic in the future would contribute towards a richer and deeper look at the effect on teacher candidate attitudes and behaviours. Discussion forum responses of the MHL course may be analyzed for recurring themes that may provide more information than quantitative measures alone.
TVIC Teacher Education as a Starting Place

This study does not measure student outcomes after teachers receive TVIC education, although this is an area to be examined in future research. Conducting a true experiment to effectively measure student outcomes would require more money and resources than a more simple focus on the changes exhibited by teachers after learning about the application of trauma and structural violence-informed principles. Thus, it can be argued that starting with an examination of teacher education about TVIC is a more feasible place to continue conducting research that may contribute to the evidence base for implementation of TVIC practices in schools. Based on what has been previously explored in the literature surrounding teacher-student relationships and trauma-informed care in the health care system, we can expect that TVIC education for teachers will create some positive, indirect effect on students.

Currently, the evidence base that supports the implementation of trauma-informed practices is significantly lacking. According to a recent Campbell systematic review, there is very little evidence to support the effectiveness of trauma-informed approaches in schools (Maynard, Farina, Dell, & Kelly, 2019). It is clear that additional research is required to establish the effectiveness of trauma and violence-informed care approaches being implemented into schools. Teacher education is a reasonable starting place, which has been demonstrated through the current study’s relatively small scale and significant effect sizes. Before conducting program evaluations of large-scale interventions that measure child outcomes, research on preservice teacher education may provide a strong, initial foundation. Starting with an examination of teacher education takes things a step back to consider the role of the teacher. Hopefully, the positive effects on teacher candidates will filter down to their students for years to come.
References


https://www.health.harvard.edu/staying-healthy/understanding-the-stress-response


Appendix A

Email Script for Recruitment of Participants

Subject Line: Baseline knowledge about Mental Health Literacy

Dear Students:

The instructor of course you are enrolled in (5018Q: Mental Health Literacy) measuring how effective this course is in increasing your knowledge about mental health literacy and trauma-informed teaching. Among the ways that you will receive marks for the course is through the completion of a pre-test and a post-test. There is no need to prepare for either of these tests; they will not be graded. Only your participation is required. More information is available on how this is done, once you click on the survey link. Another way your participation is counted in the course is through your weekly online posts in the “Discussion forums”.

In addition to having this pre- and post-test data and Discussion forums to measure how well the course met its learning objectives, a PhD student is going to be using the data to evaluate how online courses can help teacher education students learn about these topics.

No matter if you decide to share your data or not, you still need to complete the pre- and post-tests and Discussion Forum posts in order to receive the participation grades.

Below, you will find a link to the secure survey site. DO NOT SHARE THIS LINK, as it is unique to you.

You have until October 17 at 11:59 pm to complete the pre-test. Please be aware that it takes approximately 25 minutes to complete, so leave yourself ample time.

Please follow the instructions below to access the pre-test:

**Follow this link to the Survey:**
(link to be inserted)

Or copy and paste the URL below into your internet browser:
(link to be inserted)

For more information about this pre-test please visit our course website on OWL. Please see the course outline.

For any technical difficulties accessing the pre-test, please contact TA Richelle Bird at .

version date: September 19, 2018
Appendix B

Letter of Information and Informed Consent

Evaluating a Mental Health Literacy Course for Pre-Service Teachers

Letter of Information & Consent

Research team
Principle Investigator- Dr. Susan Rodger, Ph.D., Faculty of Education
Co-Investigator- Richelle Bird, M.A., Ph.D. Candidate, Faculty of Education
Research Support Staff- Anna Zuber, Faculty of Education

Purpose of the Study

You are invited to participate in this research because you are a Bachelor of Education student enrolled in EDUC 5018Q. This study is part of a PhD dissertation that will use the results from the course evaluation of this course. All students will complete pre and post-tests and discussion forum posts for the purpose of quality improvement to ensure the course is meeting learning objectives, and will receive marks for participation. We are asking your permission to share your responses to the quizzes for this PhD dissertation exploring the effectiveness of an online platform for providing pre-service educators information about mental health literacy and trauma-and-violence-informed care. We are also requesting your permission to collect and analyze information from your discussion forum posts for the purpose of identifying themes related to your experience of the course.

Your participation in this research is voluntary. There are no limitations to withdrawal, you can withdraw any or all of your information and have the right to withdraw your consent at any point during the study until final course grades are submitted, at which point the data will be anonymized. You may withdraw for any reason, and without any penalty by emailing Anna Zuber.

Confidentiality

The information collected will be used for research purposes only, and neither your name nor any identifying information will be used in any publication or presentation of the study results. These identifying pieces of information will be used solely for the purpose of matching up survey responses to participants so you are able to receive your participation grade. All data used in the research will be de-identified following the submission of final grades by the IT department, thus the identities of those who consented to share data and those who did not will not be known to the research team. All information collected for the study will be kept confidential in the possession of Western’s research; only whole group findings and themes will be shared. Please note that answers from your pre and post-tests will not be linked to your forum posts. Your decision to participate will in no way impact your grade in this course or your relationship with faculty.
All data will be retained for a minimum of 7 years. Representatives of Western University’s Non-Medical Research Ethics Board may require access to your study-related records to monitor the conduct of the research. The results of the study will be disseminated through publication in a peer reviewed journal and/or through presentation at relevant conferences.

You do not waive any legal rights by consenting to this study.

**Risks & Benefits**

There are no known risk to participating in this study. While there are no direct benefits to participating, study data will be utilized to fill important gaps in the literature with respect to mental health education for teachers.

**Questions**

If you have any questions about the conduct of this study or your rights as a research participant you may contact the Office of Research Ethics, Western University at or . If you have any questions about this study, please contact Dr. Susan Rodger (Phone: or Email: ).

Please print/save a copy of this letter for future reference

Sincerely,
The Research Team, 
Dr. Susan Rodger Ph.D., Richelle Bird M.A., Ph.D. Candidate, and Anna Zuber, Manager Teacher Education, Faculty of Education

This section is to ensure that we have your informed consent to participate in this research.

Principal Investigator: Dr. Susan Rodger Ph.D., Faculty of Education, Western University, Co-Researcher: Richelle Bird M.A., Ph.D. Candidate, Faculty of Education
Research Support: Anna Zuber, Manager Teacher Education, Faculty of Education

I give permission for my responses from my pre and post-tests to be used in this research.

   ___Yes
   ___No

I give permission for my discussion forum responses to be used in this research.

   ___Yes
   ___No
Appendix C

Demographics Questionnaire

Q1 Please enter your email address

________________________________________________________________

Start of Block: Demographic Items

Q1 Please indicate which best describes your experience.

Q2 Gender

○ Male (1)

○ Female (2)

○ Transgender (3)

○ Prefer not to say (4)

Q4 Grades you are (or will be) teaching

○ Primary (1)

○ Junior (2)

○ Intermediate (3)

○ Senior (4)

○ Alternative (5)

○ Other (6)
Q6 How many years have you taught for?  

Q7 Prior to your education degree, what was your previous degree?  

- Science (biology, chemistry, physics, mathematics) (1)  
- Psychology (2)  
- Child and Family Studies (3)  
- Health Sciences (kinesiology, nursing, medicine) (4)  
- Social Sciences (geography, sociology, anthropology, economics, political science) (5)  
- Arts and Humanities (English, history, women's studies, philosophy, French) (6)  
- Social Work (7)  
- Religion/Divinity (8)  
- Other (please specify): (9) ____________________________  

Q8 Degree Obtained  

- Undergraduate (1)  
- Masters (2)  
- PhD (3)  
- Other (please describe): (4) ____________________________
Q9 I have learned about mental health, mental illness and trauma and violence before this course?

○ Yes (1)

○ No (2)

Q10 If yes, where from? Choose one of the following:

○ Training program (such as ASIST or Mental Health First AID) (1)

○ Undergraduate course (2)

○ Post graduate course (3)

○ Other (please describe): (4) ____________________________________________
Appendix D

Vicarious Trauma Resource

Preventing, Recognizing & Addressing Vicarious Trauma
A Tool for Educators and Schools

- Anyone working in a schools will encounter students experiencing significant challenges, and we know that hearing distressing stories about students’ lives can be taxing.
- Teachers often feel helpless in the face of these challenges, and when we consider how complex students’ lives can be, there are rarely “easy fixes.”
- Understanding the nature and effects of vicarious trauma can be a first step in preventing, recognizing and dealing with it.

What is vicarious trauma?

Also known as secondary traumatic stress or compassion fatigue, vicarious trauma is a negative reaction to trauma exposure and includes a range of symptoms that are similar to experiencing trauma directly. Vicarious trauma is common but there are ways to prevent it and limit its impacts.

“When I get home, I can’t stop thinking about what happened at work.”

“Sometimes it’s hard to hear what my students have to say.”
ADVOCATE FOR ORGANIZATIONAL SUPPORT.

Importantly, individual teachers cannot be solely responsible for preventing or dealing with the effects of vicarious trauma. Doing so requires a culture of support, which means a team effort from the teacher to the school level, and adequate resources to provide good care and a safe learning environment. Leaders should engage front-line, administrative/support staff and, as appropriate, students and families in developing organizational supports for vicarious trauma.

The first step is prevention. All school staff will work with students exposed to traumatic experiences; schools that prevent and address vicarious trauma promote a better work environment for staff and, ultimately, a better learning environment for students.

2

TAKE STOCK of the school environment.

**Do conditions in the school increase or decrease the likelihood of vicarious trauma having a negative impact?**¹ Consider:

- Does the workload allow teachers to attend to their own care needs, as well as those of student; for example, are there adequate breaks?
- How is exposure to trauma acknowledged and dealt with?
- How are teachers expected to act when exposed to vulnerability (in themselves, their colleagues, or their students)? Tough? Distant? Compassionate?
- Is reflective supervision from an administrator formally available?
- Are staff encouraged to debrief informally amongst themselves, perhaps using a "buddy system"?
- How are teachers who are struggling supported? Are people seen as “burned out” (an individual’s weakness and problem) or “used up” by the school’s/board’s practices?
- How is workplace violence - including between staff, or students, or staff-student/student-staff acknowledged and dealt with?

¹ Vicarious trauma can influence your ability to best serve your students, and look after yourself. A trauma- and violence-informed care (TVIC) approach is therefore recommended; see our tool [URL]
Hearing about the trauma of others can also lead teachers to re-live their own trauma experiences. For example, we know that in female-dominated professions such as nursing, the prevalence of intimate partner violence is higher than in the general population. Supports should include ways for staff to address their own trauma histories.

3

BE AWARE of the signs and symptoms of vicarious trauma and how to recognize them in both yourself and your co-workers.

Signs and symptoms can include:

- Extreme or rapid changes in emotions (e.g., involuntary crying)
- Difficulty managing boundaries with students
- Increased sensitivity to violence
- Relationship difficulties
- Physical symptoms (e.g., aches, pains)
- Sleep difficulties
- Intrusive imagery
- Cynicism
- Aggression
- Social withdrawal

4

IF YOU’RE CONCERNED, take an online self-test, such as the one here: http://www.compassionfatigue.org/pages/selftest.html

5

PRACTICE SELF-CARE. Whether for prevention or treatment of vicarious trauma, focusing on self-care is a good idea.

Anyone who works in a helping profession is at risk. Even if these experiences are currently absent, it’s important to take steps to keep well. Everyone is different, but self-care might look like:

- Healthy diet
- Adequate sleep
- Spending time in nature
- Spending time with friends & family
- Exercise (of any kind)
- Relaxation

Appendix E

Trauma and Violence-Informed Care Resource

Trauma- & Violence-Informed Care (TVIC)
A Tool for Educators & Schools

What is TVIC?

TVIC is an approach that focuses on preventing harm by creating safe environments and learning encounters for students who have experienced (and may still be experiencing) violence and trauma. It is an inter-related set of school policies and educator-level practices based on knowledge about trauma and violence, how student’s social conditions can be harmful, and taking a person-centred, strengths-based approach.

- Trauma-informed care (TIC) seeks to create safe care environments based on knowing the effects of trauma.
- Trauma- and Violence-Informed Care (TVIC) expands on this by:
  1. emphasizing that interpersonal violence, especially in the family, is particularly harmful
  2. highlighting that harm comes not only from peoples’ experiences, but can also come from our social conditions
- TVIC shifts the focus from “what’s wrong?” (problem is located within the student) to “what’s happened, and is still happening?” (problem is located within the student’s life)
- TVIC makes us examine not only the effects of ongoing violence, but also social structures and practices that can be harmful, and look for ways to improve practices, and consider social conditions, to provide a better, safer educational environment.

Everyone needs to feel physically and emotionally safe; this is especially true for those who’ve experienced violence and trauma. Many people are currently in unsafe relationships or may live in unsafe conditions. Others may be feeling the effects of previous interpersonal, collective and/or historical violence or trauma.

This tool offers actions you can take to implement TVIC in your teaching practice, and advocate for this approach in your school.
4 WAYS TO TEACH AND WORK IN A TRAUMA- & VIOLENCE-INFORMED WAY

1 BUILD TRAUMA AWARENESS & UNDERSTANDING.

All services taking a TVIC approach begin by building awareness of:

- The high prevalence of trauma and violence
- The significance of historical (collective and individual) and ongoing violence (interpersonal and systemic)
- How the impact of trauma can be central to one’s development
- The wide range of coping strategies that people use
- The relationship of trauma and violence with substance use, physical health and mental health concerns

Consider trauma a risk factor.

- Students who experience(d) abuse and neglect are at higher risk of a range of physical injuries, and adverse mental and physical health outcomes in adulthood.
- Children’s exposure to intimate partner violence (IPV) is associated with physical health and mental health problems, alterations in mood, attention, concentration, relationship skills, intrusive memories, compromised learning outcomes, emotional distress and avoidance behaviours (such as school refusal).
- Students with a childhood history of abuse and neglect are more likely to smoke, misuse substances, and engage in risky sexual behaviours.
- Experiences of interpersonal violence, racism and discrimination can change neurobiological patterns and genetic structures that affect mental and physical health.

Consider intersections.

For example, children who experience abuse and live in poverty:

- have families or caregivers with less access to resources for financial independence; therefore, have fewer ‘choices’
- are likely to experience stigma related to poverty and violence and may face stereotypes and assumptions about the parents’ ability to care for them
- may not have the financial resources that their families need to afford childcare, lawyers, transportation etc., all of which increase their vulnerability to abuse, and;
- have disadvantages that compound if they experience additional forms of discrimination, e.g., related to race, age, literacy, ability or size (poverty and neglect can often lock similar, and assumptions that students are neglected when they are living in poverty can further add to stigma)
You don’t need to know a person’s history of violence or trauma to provide TVIC. Everyone should be included in the classroom:

Teachers can:

• Create a welcoming environment, including through language (see below)
• Examine the welcoming procedures that consider students’ possible trauma histories
• Adapt the physical space for comfort
• Be non-judgmental, make people feel accepted & deserving of your best care
• Communicate clear & accurate expectations about their classroom
• Help students and their caregivers think about safety
• Seek input from students and families about safe & inclusive strategies

Teachers can support their own safety and mental health through:

• Education & resources specific to vicarious trauma^1
• Accessing support resources (e.g., Employee Assistance Programs)
• Engaging in self-care (e.g., eating healthy, exercise, spending time with friends and family)

Language Matters!

Instead of: “difficult child” or “child with behavioural problems”
Use: “child who is struggling” or “child is trying to communicate the best way they can”

Instead of: “abused child” or “abused youth”
Use: “child” or “youth”

Instead of: “she doesn’t want our help”
Use: “our help may not be meeting her needs”

^1 For more information on vicarious trauma, see our tool: [URL]
3  FOSTER OPPORTUNITIES FOR CHOICE, COLLABORATION & CONNECTION

Teachers can:
- Develop and use practices and relationships that allow for flexibility and encourage shared decision-making and participation
- Involve students in their learning
- Provide appropriate and meaningful learning options
- Consider choices collaboratively with students
- Actively listen, and privilege the student’s voice
- Notice and support students in need

Think of TVIC as “universal precautions” to ensure that students in your care are not re-traumatized or harmed.

4  USE A STRENGTHS-BASED & CAPACITY-BUILDING APPROACH to support students.

Teachers can:
- Allow sufficient time for meaningful engagement
- Provide learning options that can be tailored to student’s needs, strengths and contexts
- Seek out ongoing opportunities for development of knowledge and skills with respect to trauma- and violence-informed teaching and classroom management
- Help students identify their own strengths
- Acknowledge the effects of historical and social conditions
- Teach students skills for recognizing triggers, calming, and centering that are developmentally appropriate

Trauma- and violence-informed care requires you to examine your own experiences, power & assumptions, and adjust these to provide the safest and most appropriate learning environment.

Appendix F

Trauma Walk-Through Exercise

Trauma Walk-Through
An Exercise for Educators

This exercise will help teachers, at various schools, ‘walk through’ their space to assess the extent to which the social and physical environment is likely to feel welcoming, culturally and emotionally safe, and reduce potential harm for everyone, but especially for those who are most likely to feel unwelcome and unsafe.

1 Approaching and entering the school and classroom

Think about visiting the school where you work. As you approach and enter, imagine the following, as though it’s your first visit:

- In getting there, what is their frame of mind likely to be? Was it a journey that was predictable, safe, and supported?
- If they are coming on a school bus, is the student experiencing bullying during the ride? Do they have a support, a friendly face?
- If they are arriving on foot, what was the walk like? Long? Short? Many strangers? Danger?
- Is there good supervision in the playground? Is there bullying or aggressive behaviour?
- What is the entrance like? Crowded? Noisy? Organized?
- Who is present? Are there teachers or other trusted adults standing at the door, welcoming students into the school, into the classroom?
- Who is communicating with who? How are people communicating? What is their tone of voice?

- What are the sounds present as student enter? Is there calm music? Students who are dysregulated and disruptive?
- Are people making eye contact? And if so, who is making eye contact with whom?

Think about it

- What is welcoming or unwelcoming as you enter?
- What tone does the signage, décor, announcements, convey? Who do you imagine decides about these features? What influences those decisions?
- Who would feel welcome or unwelcome here? Do you feel welcome here? Why or why not?
- What things or people in the space might deter people from engaging with teaching staff? What might be encouraging or supportive to get them to move forward to talk to staff?
Now imagine approaching the office area/staff.

- Where is it located? How do people (students or parents/guardians) know where it is and how they are supposed to get there?
- How are people greeted and by whom?
- How many people are usually in the reception area? Who are they?
- How private are conversations? What if someone has a sensitive topic to talk about?
- What is allowed? Are children allowed to come in?
- How do students and parents/guardians and other people know what staff roles are? How can you recognize a teacher? A caretaker? A Principal?
- What do staff convey? Consider usual facial expressions, tone of voice, body language, words.
- What stands out about this space?
- What makes you feel comfortable or uncomfortable here? Who would feel most comfortable? Are different people treated differently and if so in what ways and by whom? Based on what?
- What questions are asked? Review the late/attendance policies. What does it draw attention to? From what does it detract attention?

Think about it

- When staff engage with students and families do you think that they consider what is affecting people's well-being? For example, do you think staff account for how hard it might be to even get to school?
- How do staff engage with people who do not speak English as a first language? Does anything about their communication change?
- Do the staff take into consideration student age or physical ability? For example, how do they speak with children with exceptionalities? Are students able to sit in the office, or are they standing in the hall?
- How do staff engage with people who seem to have trouble focusing on questions being asked?
3 Hallways

What is it like to walk through the halls?
- If you had to describe the halls of your school(s) to someone in two words, what would you say?
- What is the strongest feeling you have as you walk the hallways?
- What does it look like? How does it sound? How does it feel (crowded)? What are students doing there?
- Are water and washrooms available, accessible, and easy to locate? Are they clean? How do they smell?
- Are the halls clean?
- Are they safe and well-supervised?
- Are there spaces available for students to sit (e.g., benches, chairs)? Do they seem comfortable?
- What do you notice about the students walking through here? Do they seem comfortable to you, nervous, excited? Are they talking to one another?
- Notice who is helping people in the halls. Who is talking to students? Who is helping if someone appears distressed or uncomfortable? Do some people seem uncomfortable? Why?
- What kinds of things are happening to students here? Are they getting disciplined, or encouraged?
- What do you see that is relevant to people's privacy, their identity and/or their learning needs and/or well-being?

Think about it
- Who would feel comfortable in this space? Who wouldn't? Why?
- How is privacy and confidentiality protected in this space?

4 Classrooms

What are the classrooms like?
- What is the layout of the room? Would you describe the space? Warm, cold, cozy, sterile?
- Who is in the room?
- What do students hear as they enter the classroom? Are they greeted? What do their first interactions with their teacher look like?
- Are there different areas and materials to accommodate different learning styles?
- Is a teacher available in the classroom outside of class time to talk to students? Is this made known to students?
- How are decisions made in the classroom? Is this done collaboratively with students? How are student suggestions and ideas received?
- What do you notice about when and how teachers talk with students? How does the encounter begin? End?
- What happens prior to and during instructional time and assessments? What are staff doing and saying? What actions do staff take to ensure students feel comfortable taking learning risks?
- Would you feel comfortable in this space? What might make you feel uncomfortable or unsafe?
Think about it

- Are the classrooms set up to best serve students, or teachers?
- Who would feel respected in this space? Who would not? Why?
- What small thing could be changed to make it a more welcoming space?

5 Leaving school

What is the end of the day like?

- What happens when students leave school to go home? Are assignments considered/discussed in the context of resources and experiences at home and in their community?
- Do teachers and staff say goodbye to them at the end of the day?
- Is there any understanding that students’ behaviour at the end of the day might be a reflection of their experiences at home (e.g., acting out before a long-weekend and not wanting to go home)?
- What does the end of the day routine look like? What is it like in the halls? How does it sound? How does it feel?
- What do you think student’s trips home might be like? How might this influence their mood and behaviour at the end of the day?

Adapted from EQUIP Health Care: Equity Walk Through Questions. Vancouver, BC. Retrieved from https://equiphealthcare.ca/toolkit/equity-walk-through/
Appendix G

Ethics Approval

Date: 25 September 2018
To: Dr. Susan Rodger

Project ID: 112483

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

Application Type: NMREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 05/Oct/2018

Date Approval Issued: 25/Sep/2018 10:58

REB Approval Expiry Date: 25/Sep/2019

Dear Dr. Susan Rodger

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the WREM application form for the above mentioned study, as of the date noted above. NMREB approval for this study remains valid until the expiry date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review:

This research study is to be conducted by the investigator noted above. All other required institutional approvals must also be obtained prior to the conduct of the study.

Documents Approved:

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No deviations from, or changes to the protocol should be initiated without prior written approval from the NMREB, except when necessary to eliminate immediate hazards to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario. Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB. The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00009941.

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

Sincerely,

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

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

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