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# Evaluating Mental Health Training for Teachers: Identifying and Supporting Students with Mental Health Challenges

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

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EVALUATING MENTAL HEALTH TRAINING FOR TEACHERS:  
IDENTIFYING AND SUPPORTING STUDENTS WITH MENTAL HEALTH CHALLENGES

(Thesis format: Monograph)

by

Jessica A. Woods

Graduate Program in Education

Submitted in partial fulfillment  
of the requirements for the degree of  
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School of Graduate and Postdoctoral Studies

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London, Ontario, Canada

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## **Abstract**

The number of children and youth struggling with mental health challenges is prevalent, and teachers have an influential role in the lives and learning of students and teachers require professional development training regarding student mental health issues. The current study was an evaluation of a professional development workshop designed in response to teachers' requests for education about teaching children with anxiety and depression. The present study aimed to explore the immediate and long-term effectiveness of a professional development program designed for teachers regarding the impact of anxiety and depression on student learning. A one group pre-test, post-test design was implemented to investigate teachers' knowledge, perceived skills and abilities, self-efficacy, and attitudes of students struggling with anxiety and depression, and how to identify and support the learning and development of these students. The results indicated that following participation in a two-hour workshop teachers' knowledge, perceived abilities and skills, attitudes and awareness, and efficacy towards educating, identifying, and supporting students with anxiety and/or depression improved, while their attitudes remained positive. Consequently, the results of the current study lend support for the justification and value of providing teachers with mental health professional development.

Keywords: school-based mental health; teacher professional development; teachers; students

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## Introduction

Childhood mental health problems are prevalent. Reports estimate that 14 to 20 percent of Canadian children and youth experience a mental health disturbance serious enough to cause challenges across many areas of development and daily functioning (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005; Kutcher, Venn, & Szumilas, 2009; Leitch, 2007; Waddell, Offord, Shepherd, Hua, & McEwan, 2002). Unfortunately, the majority of children and youth struggling with mental health problems remain unidentified and consequently go untreated (Koller, & Bertel, 2006; Manion & Short, 2011). Teachers play a multifaceted role in classrooms across Canada: they establish safe environments that foster the growth and development of children and youth, teach prescribed curricula, model and encourage appropriate social and communication skills and behaviours, and assess learning and performance in many domains (Herman, Reinke, Parkin, Traylor, & Agarwal, 2009; Moor, Sharrock, Scott, McQueen, Wrate, Cowan, & Blair, 2000; Weston, Anderson-Butcher, & Burke, 2008). Moreover, teachers are expected to be responsive to the needs of their students, and these needs may include exceptionalities, such as learning disabilities, or linguistic or socio-economic circumstance, such as having English as a second language or living in poverty (Levy, 2008; Mahat, 2008; Trudgen & Lawn, 2011). Mental health concerns are one type of exceptionality that will affect the lives and learning of children and youth in our classrooms (Herman et al., 2009), and teachers are on the front lines (Kutcher et al., 2009). Moreover, teachers have repeatedly expressed concerns of feeling overwhelmed, incompetent, and/or ill-prepared to address the mental health needs of their students, often because they feel they lack knowledge, skills, competence, and resources in this area of student mental health (Froese-Germain & Riel, 2012; Koller & Bertel, 2006; Whitely, Smith, & Vaillancourt, 2013). The current study is an evaluation of a professional development

workshop designed in response to teachers' requests for education about teaching children with anxiety and depression. A review of the relevant literature is presented, followed by the research questions, methodology, results and interpretation of findings.

## **Literature Review**

### **Definitions**

According to the World Health Organization (WHO; 2010), mental health is a state of well-being which enables a person to effectively cope with stress, to thrive and be productive in their daily life tasks, relationships, work, and community. In other words, good mental health "can be seen as a state of mental health that allows one to flourish and fully enjoy life" (Compassionate classrooms, 2009, p. 6.). It is important to note that mental health is not dependent on the absence of mental disorders, since mental health is determined by an interplay of social, psychological, environmental, and biological factors (Compassionate classrooms, 2009; WHO, 2010). Essentially, mental health represents a holistic understanding of health, which recognizes how various factors (i.e., social, psychological, environment, poverty, education, and physical health) interact and influence one's overall health and well-being.

In contrast, a mental disorder, according to the American Psychiatric Association (APA; 2013), is a state of dysfunction in the psychological, biological, or developmental aspects fundamental to mental functioning, which results in a serious disturbance of a person's cognitive, emotional, or behavioural functioning. The Diagnostic and Statistical Manual (APA, 2013), classifies, categorizes, and defines the criteria of a diagnosable mental disorder. It is important to note that mental health problems do not meet the symptom criteria for a clinical diagnosis of a mental disorder; however, mental health problems present serious risk factors for developing a mental disorder (Santor, Short, & Ferguson, 2009). Furthermore, both mental disorders and

mental health problems cause significant difficulties in children and youths academic and social-emotional development (Santor et al., 2009). Adults have a responsibility to ensure they have the tools required to meet the needs of the children and youth in their care who may be struggling with mental health challenges.

Mental health literacy as defined by Jorm and colleagues (1997; as cited in Jorm, 2000), refers to a person's knowledge and beliefs about mental disorders, which in turn increases their ability to recognize, manage, or prevent the development or exacerbation mental health problems. According to Jorm (2000), mental health literacy is composed of several elements, including, the ability to identify mental disorders or various forms of psychological distress, knowledge and beliefs regarding risk factors and determinants of mental health problems or disorders, knowledge and beliefs about self-help interventions, knowledge and beliefs about available professional help, attitudes which aid in recognition and appropriate help-seeking behaviour, and knowledge on how to access mental health information. Thus, mental health literacy provides the significant adults- including teachers- in the lives of children and youth with the knowledge and skills to identify, respond to, and prevent early symptoms of mental health problems or disorders (Langeveld, Joa, Larsen, Rennan, Cosmovici, & Johannessen, 2011).

### **The Need for Early Intervention**

Unrecognized and untreated mental illnesses in children and youth can negatively affect their academic, emotional, and social development (Kutcher et al., 2009). Pupils struggling with mental health problems often exhibit poor academic achievement, and studies have shown that mental illnesses are correlated with high absenteeism rates and premature withdrawal from school (Herman et al., 2009; Van Ameringen, Mancini, & Farvolden, 2003). Of particular importance here, research has demonstrated that symptoms of depression including feelings of

hopelessness, isolation, and a general lack of support, are correlated with an increased risk of suicide (Manion & Short, 2011). Teachers have identified anxiety disorders and depression as two of the most significant mental health challenges that impact their students (Froese-Germain & Riel, 2012). The prevalence rates of anxiety and depression are significant; specifically, 1 in 10 students suffer from symptoms of anxiety (Sink & Igelman, 2004). According to a report by the advisor on healthy children and youth, anxiety was the most common mental health problem in Canadian children and youth (Leitch, 2007). In addition, approximately 20% of school-aged children are struggling with a depressive disorder (Cooley, 2007). Fortunately, research has shown that early intervention, identification, and treatment for children and youth with mental health disorders may result in higher recovery rates, symptom alleviation, and overall improved outcomes (Trudgen & Lawn, 2011). Consequently, early intervention is important for students overall mental and physical health, as well as their social, emotional, and academic development.

Considering the prevalence of students suffering from mental health problems and disorders, and the negative impact these problems have on their academic, emotional, and social development, it is evident that mental health issues are a serious problem in schools (Kutcher et al., 2009). Students' mental health and well-being is important to their quality of life, long-term success, emotional, social, and academic development (Weston et al., 2008). Since mental health problems and/or disorders act as a barrier to academic success and because children often depend on adults such as teachers for help (Herman et al., 2009), clearly this is an issue that requires school-based intervention and support (Weston et al., 2008).

### **Bioecological Perspective and Systems of Care**

Bronfenbrenner's developmental-ecological theory, recently revised as the bioecological model (Bronfenbrenner & Morris, 2006) provides a context for understanding the development,

growth, and adaptation of children (Cook & Kilmer, 2010). According to this theory a child's growth and development, including their mental health, is influenced by various interconnected systems which impact their lives. The interacting ecological systems which surround a child and influence their development, growth, and well-being include their family, friends, school, community, and society. Moreover, this model highlights how interrelating relationships among the key people in children's lives (i.e., teachers and parents), programs or services, processes, contexts, and environments may influence the well-being, growth, and development of children (Cook & Kilmer, 2010).

The systems of care concept, originally defined by Stroul and Friedman (1986, as cited in Hodges, Ferreira, Israel, & Mazza, 2010) acknowledged the need for the cooperation of multiple system levels, such as the government, tribal, and local levels, in order to improve the service delivery or access to mental health interventions for children and youth (Hodges et al., 2010). The bioecological theory offers a context for understanding the manner in which various interacting system factors and processes impact children and youth within a system of care model (Cook & Kilmer, 2010). The idea here is that when processes within the school system change, this impacts the teacher's processes, which in turn changes the systems around the child (Dwyer, 2002). Thus, when the school system changes by implementing school-based mental health initiatives, such as providing teachers with mental health literacy resources, support, and development, this may impact how teachers manage their classroom, teach, recognise and respond to students with mental health problems (Dwyer, 2002). These changes could in turn positively influence students' well-being, social-emotional, and academic development (Dwyer, 2002).

Cook and Kilmer (2010) revised Hodge and colleagues' (2010) definition of a system of care as "an adaptive network of structures, processes, and relationships embedded within the community and grounded in system-of-care values and principles" (p. 20). Furthermore, a system of care model aims to present children and youth, as well as "their families with the services and supports needed to enable them to live, work, learn, and participate fully in their communities" (p.20, Cook & Kilmer, 2010). Considering that all children and youth attend school (Kirby, 2013), schools are often viewed as an accessible setting in which mental health interventions and supports should be provided (Davies, Gardner, Parkin, & Short, 2009; Weston et al., 2008).

School-based mental health is a term that refers to mental health or substance abuse programs or services which are offered in a school environment (Santor et al, 2009). School-based mental health programs aim to promote mental health and wellness, prevent mental health problems from developing, identify students struggling with mental health concerns, and offer mental health resources and supports within the school (Santor et al., 2009). Research (e.g., Whitley et al., 2013), Canadian teaching organizations (Froese-Germain & Riel, 2012), and reports commissioned by the Canadian government (Kirby & Keon, 2006) have all highlighted the importance of addressing the mental health needs of children and youth within the school system. Weston and colleagues (2008) noted that providing training for teachers in encouraging mental health or wellness in all of their students, as well as helping teachers provide effective learning strategies for students struggling with mental health difficulties, can lead to systemic change within schools. Consequently, this approach in schools highlights the importance of addressing the role of teachers in school-based mental health initiatives, while considering the state of the entire school and interaction of all school personal. Weston and colleagues (2008)

suggested all school personal (i.e., teachers, principals, administrators and educational assistants) must understand and be knowledgeable about mental health issues and these issues impact students' learning, social, and emotional development. In the current study, all school personal were invited to participate in a workshop regarding the impact of anxiety and depression on learning, and how to identify and support students with mental health difficulties.

### **The Role of Teachers**

Teachers have an influential role in the learning and development of students through their ability to observe them over an extended period of time (Herman et al., 2009; Moor et al., 2000). Teachers often know their pupils extremely well, possibly better than any other adult, with the exception of their parents (Trudgen & Lawn, 2011). In addition, teachers have the ability to witness concentration or attention problems in their pupils, and they have access to grades as evidence of academic struggles (Moor et al., 2000). Considering the high prevalence of students struggling with a mental health concern- that has been established by research cited earlier in this review, it is evident that teachers need to be involved and take action to support their students struggling with mental health problems (Jorm, Kitchner, Sawyer, Scales, and Cvetkoski, 2010). In fact, teachers are often the first adults to observe the symptoms and/or early behavioural problems which indicate either the onset or worsening of mental health problems or disorders (Whitley et al., 2013). It is important to distinguish that a teacher's role is not to diagnose students with mental health problems; however, teachers are in a unique position to identify students, refer them for assessment and treatment, and support them in the classroom (Trudgen & Lawn, 2011).

### **Teachers' Views and Awareness of Student Mental Health Issues**

The negative effects of mental health problems on students' behaviour, social-emotional, and academic functioning can also impact their teachers: teachers have repeatedly expressed concerns of feeling overwhelmed, incompetent, and ill-prepared to address the mental health needs of their students, often because they feel they lack knowledge, skills, competence, and resources in this area of student mental health (Froese-Germain & Riel; Koller & Bertel, 2006; Whitley et al., 2013). In the first three years of teaching, approximately 25% to 50% of new teachers leave the field due to occupational stress (Inman & Marlow, 2004), in part due to feeling overwhelmed and incompetent to address student mental health problems (Davies et al., 2009; Inman & Marlow, 2004; Whitley et al., 2013). It has been suggested that mental health literacy training is necessary in order to retain new teachers and mitigate their feelings of stress and incompetence (Weston et al., 2008; Whitley et al., 2013). Moreover, research has indicated the manner in which teachers respond to student mental health issues may be related to their views regarding mental health combined with beliefs concerning their own ability to identify, teach, and support students with mental health challenges (Graham, Phelps, Maddison, & Fitzgerald, 2011). Thus, it is vital to address teachers' knowledge, abilities, and beliefs about how to identify, respond, and support the learning and development of students with mental health problems.

Teachers' perceptions of student mental health issues have been investigated (see, for example, Graham et al., 2011; Roeser & Midgley, 1997; Walter, Gouze, & Lim, 2006). Roeser and Midgley (1997) examined teachers' perceptions of their role in addressing student mental health issues. The findings revealed that although 99% of teachers felt that part of their role involved promoting youth mental health topics, they felt fairly overwhelmed and burdened by



their students' mental health needs. These feelings were found to be related to teachers' sense of efficacy, which can be a moderator of burden. Roeser and Midgley (1997) acknowledged the correlational design of their study prevented causal explanations; nonetheless they speculated that teachers' sense of efficacy may be increased by enhancing their ability to address student mental health concerns. Consistent with other research (e.g. Trudgen & Lawn, 2011), Roeser and Midgley (1997) found no relationship found between years of teaching and views of students mental health challenges. Roeser and Midgley (1997) maintained that an implication of their findings was the importance of professional development training to educate and provide teachers with the knowledge and skills to aid in their ability to identify, refer, and support the learning and development of students with mental health disturbances.

Teachers' beliefs, education, experience, knowledge, self-efficacy, and attitudes about student mental health issues, as well as the barriers teachers faced to successfully address these issues was further investigated by Walter and colleagues (2006), who reported that professional development and consultation with colleagues was positively correlated with teachers' knowledge and self-efficacy regarding how to successfully address the needs of students with mental health problems. Furthermore, the survey results indicated that teachers felt one of the most critical barriers to adequately addressing mental health issues in schools was a lack of mental health literacy training/information. Consistent with Roeser and Midgley (1997), Walter and colleagues (2006), suggested their findings demonstrated the significance of mental health literacy for teachers to improve their mental health competency and ability to support the learning and development of students with mental health challenges.

In a review of mental health literacy among educators, Whitley and colleagues (2013), acknowledge that there was a limited amount of research regarding teachers' beliefs about

mental health issues in the classroom. Despite this lack of research, there has been evidence indicating that teachers have expressed a need for mental health literacy training to improve their knowledge, skills, and self-efficacy towards supporting and responding to the learning and development of students with mental health concerns (Graham et al., 2011; Roeser & Midgley, 1997; Walter et al., 2006; Whitley et al., 2013). In addition, mental health literacy may be important for alleviating teachers' feelings of being overwhelmed and incompetent to successfully address student mental health issues (Weston et al., 2008; Whitley et al., 2013). Thus, the current study investigated the effectiveness of a professional development program on teachers' knowledge, attitudes, and self-efficacy in supporting students who are learning and living with anxiety and depression.

### **Teachers' Sense of Self-efficacy**

Teacher self-efficacy refers to their beliefs and confidence that they have the ability to successfully implement actions which will positively influence student learning (Klassen, Tze, Betts, & Gordon, 2011). Teacher self-efficacy includes: (a) assessment of personal competency; and (b) appraisal of the task at hand pertaining to resources and constraints within certain teaching contexts (Tschannen-Moran & Hoy, 2001). Research has shown that self-efficacy is a strong motivator which impacts teachers' responses and behaviours (Klassen et al., 2011). Teachers' sense of efficacy can influence the effort they put forth in teaching, the goals they set, their enthusiasm towards teaching, ambition, and receptiveness to trying new teaching methods and technology (Carleton, Fitch, & Krockover, 2007; Tschannen-Moran & Hoy, 2001).

Teacher self-efficacy can be an important factor in perceived confidence and ability to identify students who are struggling with mental health disturbances. High school health teachers' sense of efficacy in identifying pupils at risk for suicide was studied by researchers

King, Price, Telljohann, and Wahl (1999). The results indicated the majority of participants felt it was part of their role as high school teachers to identify pupils at risk for suicide, and they believed that identifying suicidal students was important and would decrease the risk that those students would actually commit suicide. Despite this, only 9% of teachers “believed that they could recognize a student at risk for suicide” (p. 206). The researchers suggested their results may indicate that teachers lacked confidence in their capabilities to identify students who are at risk for suicide, because they may not know the signs or risk factors of youth suicide.

Additionally, King and colleagues (1999) found that offering professional development programs to teachers regarding youth suicide was positively correlated with increased self-efficacy expectations. Although the current study will not specifically investigate the effect of a professional development program on teachers’ awareness of suicide; their knowledge, attitudes, and self-efficacy towards supporting students with anxiety and depression will be assessed. Teachers’ knowledge, attitudes, and self-efficacy in identifying and supporting students with anxiety and depression is important since mental disorders, especially depression significantly increase the risk of suicidal behaviour in youth (Beautrais, 2000).

Teacher self-efficacy research has shown that effective classroom management is correlated with teachers’ sense of confidence in their abilities (Giallo & Little, 2003). Theoretically, it has been said that behaviours are influenced by one’s belief that a specific action will result in a desired outcome, in addition to one’s self-efficacy or belief that they have the capability to successfully perform that action (Giallo & Little, 2003). Consequently, Giallo and Little (2003) investigated the relationship between preparedness, classroom experiences, and self-efficacy in classroom management. The results showed that teachers who had a greater sense of sense of self-efficacy were also likely to have an increased sense of perceived preparedness

and classroom manageability. Giallo and Little (2003) noted that due to the correlational design of their study the causality of the results could not be determined; such that, it is unclear whether negative classroom experiences decrease perceived self-efficacy, or if teachers with low self-efficacy viewed classroom experiences as negative and unmanageable. Nonetheless, Giallo and Little (2003) suggested an important implication of their findings was that schools should offer teachers professional development in areas they identify as needing training. The current study evaluated the effectiveness of a professional development program, which was designed to address teachers' request for education regarding the impact of anxiety and depression on students learning.

**Measuring self-efficacy.** A frequent issue in self-efficacy research was the use of unreliable, invalid, or flawed instruments or measures (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001). A research review by Klassen and colleagues (2011) examined 68 articles pertaining to teacher self-efficacy. Klassen and colleagues (2011) found that the most reliable self-efficacy measures consisted of items including assessments pertaining to context-specific outcomes, and emphasis on one's ability to successfully implement a particular course of action. Specifically, Klassen and colleagues (2011) reported that measures of self-efficacy:

should be phrased with *can*, rather than *will*, e.g., "How confident are you that you *can* complete your homework?" (p. 39)

Although Klassen and colleagues (2011) investigation was not exhaustive in reviewing all teacher self-efficacy research, they found an instrument created by Tschannen-Moran and colleagues to be the most valid and congruent with self-efficacy theory.

Researchers Tschannen-Moran and Hoy (2001) examined problems with the teacher self-efficacy measures and then introduced a new measure for teacher efficacy based on a model

described by Tschannen-Moran and colleagues. Tschannen-Moran and Hoy's (2001) Teachers' Sense of Self Efficacy Scale (*TSES*) previously called the Ohio State teacher efficacy scale, was designed to measure teachers assessments of their self-efficacy across numerous teaching tasks and activities. Furthermore, this new measure evaluated self-efficacy across all aspects, including both personal competency and appraisal of the applicable task at hand, which was consistent with self-efficacy theory (Klassen et al., 2011). The *TSES* was investigated for factor structure, reliability, and validity in three individual studies (Tschannen-Moran & Hoy, 2001). The final instrument included both a long (24-items) and a short (12-items) form. Studies investigating the *TSES* found the measure to be reasonably valid and reliable, as well as having an integrated and stable factor structure assessing teachers' numerous capabilities across various situations (Klassen et al., 2011). Overall, the *TSES* was found to be a reliable and valid measure, superior to previous instruments measuring teacher self-efficacy (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001), thus the current study used the *TSES* to measure teacher efficacy.

### **Teachers' Attitudes**

Attitudes, such as beliefs and self-efficacy may contribute to teachers abilities to identify and support youth with mental health concerns, since research has shown that attitudes (Eagly & Chaiken, 1993) and perceived self-efficacy often influence behavioural responses (Carleton et al., 2007; Klassen et al., 2011; Tschannen-Moran & Hoy, 2001). Attitudes are defined as a psychological inclination or process of positive or negative evaluations of a certain attitude object (Eagly & Chaiken, 1993). An attitude object represents anything that is evaluated or discriminated, such as people, groups, activities, behaviours, issues, places, or things (Eagly & Chaiken, 1993). According to the three-component theory, attitudes consist of: cognitive, affective, and behavioural components (Eagly & Chaiken, 1993). Specifically, the cognitive

category pertains to beliefs, views, or thoughts regarding an attitude entity (Eagly & Chaiken, 1993). The affective component concerns feelings or emotions towards an attitude object (Eagly & Chaiken, 1993). Finally, the behavioural aspect refers to behavioural intentions, actions, or past experiences with respect to the attitude object (Eagly & Chaiken, 1993; Haddock & Zanna, 1998).

The research literature was limited in regards to teachers' attitudes towards students with mental health concerns, especially pertaining to the development or use of psychometrically sound instruments to assess teachers' attitudes. The questionnaires designed to assess attitudes were often independently constructed, lacked a theoretical framework (i.e., the three-component theory of attitudes), and had little empirical support due to inadequate testing of the instrument (Becker, Martin, Wajeeh, Ward, & Shern, 2002; Graham et al., 2011; Roeser & Midgley, 1997). Despite this gap in the literature regarding teachers attitudes, there was research which utilized psychometrically-sound measures to assess teachers attitudes towards inclusive education (Avramidis & Norwich, 2002; De Boer, Pijl, & Minnaert, 2011; De Boer, Timmerman, Pijl, & Minnaert, 2012; MacFarlane & Woolfson, 2013; Mahat, 2008; Yan & Sin, 2013). Inclusive education describes educational services in which no child is excluded due to learning differences (Mahat, 2008). Therefore, all students regardless of their level of ability are included in the regular classroom and provided with the necessary services and support required to meet their educational needs (De Boer et al., 2011; Mahat, 2008). Consequently, disorders affecting children and youth, including mental health disorders (The Diagnostic and Statistical Manual of Mental Disorders Text Revision [*DSM-IV-TR*], 2000) are included under the umbrella of students with special educational needs, who are in need of inclusive education services (De Boer et al., 2011).

**Measuring teachers' attitudes.** The Multidimensional Attitudes Toward Inclusive Education Scale (MATIES) was developed by Mahat (2008), in order to measure teachers attitudes based on the three-component theory of attitudes, consisting of cognitive, affective, and behavioural components. Factor analysis of the MATIES showed three distinct yet correlated subscales of teachers attitudes: (a) *cognitive*: items signify perceptions or beliefs regarding inclusive education, (b) *affective*: items represent feelings or emotions toward inclusive education, and (c) *behavioural*: items denote intentions to behave in a particular manner with respect to inclusive educational practices (Mahat, 2008). The Cronbach reliabilities of the three subscales were significant at 0.77, 0.78, and 0.91, respectively (Mahat, 2008). Moreover, the pilot analysis showed the MATIES subscales had good internal reliability, content validity, construct validity, criterion validity, and convergent validity (Mahat, 2008). Although the MATIES was recently developed, researchers MacFarlane and Woolfson (2013) utilized the cognitive and affective subscales. Furthermore, Yan and Sin (2013) adopted a Chinese translation of the behavioural subscale. MacFarlane and Woolfson (2013) adapted the scale to describe students with social, emotional, and behavioural difficulties. Both the MacFarlane and Woolfson (2013), and Yan and Sin (2013) studies reported substantial Cronbach's alpha reliabilities, in which the cognitive and affective subscales had reliability alpha's at 0.75 (MacFarlane & Woolfson, 2013), and the behavioural subscale had a high reliability at 0.91 (Yan and Sin, 2013). Consequently, the reliabilities of the MATIES subscales shown in the MacFarlane and Woolfson (2013), and the Yan and Sin (2013) studies supported the results reported by Mahat (2008); therefore providing support for the internal reliability of the MATIES. The current study will adapt the MATIES to evaluate teachers' attitudes towards inclusive education of students with a mental health challenge.

### **Teachers Abilities in Identifying Students with Mental Health Challenges**

As previously established, the majority of students suffering from anxiety and depressive symptoms remain unidentified and untreated (Moor et al., 2000). Mental health literacy training for teachers may be a strategy to help increase the number of children and youth struggling with mental health problems being recognised and provided learning help and treatment supports. In fact, research has shown that participation in mental health literacy training may increase teachers' ability to successfully recognise students with mental health challenges (Langeveld et al., 2011; Puura et al., 1998). Puura and colleagues (1998) provided evidence that teachers are capable of recognizing some mental health symptoms in students. Specifically, the researchers sought to determine what symptoms or behaviours of depression teachers recognized and which behaviours they perceived as requiring psychiatric help. The results of this research revealed that teachers were reasonably capable of identifying depressive symptoms in their students; however they failed to refer the majority of these pupils for treatment, assessment, or additional help. Teachers merely considered psychiatric referral or actually sought psychiatric assistance for only a small minority of their students whom displayed multiple somatic and depressive symptoms. Despite some limitations in the research, the results provide important insights about teachers' capabilities in identifying depressive symptoms in their students.

An exploratory study conducted by Trudgen and Lawn (2011) sought to further investigate how teachers recognized symptoms of depression and anxiety in students. Specifically, Trudgen and Lawn (2011) implemented a qualitative research design to explore the threshold of teachers' abilities to recognize depression and anxiety in students and what impacted their decisions to act on their concerns. The results revealed the threshold of teachers' abilities to act on their concerns was subjective, and void of any appropriate knowledge or



understanding of what the symptoms of anxiety and depression looked like in youth. Consistent with other research, more years of teaching experience was not positively correlated with greater understanding of student mental health issues (Roeser & Midgley, 1997). The barriers that prevented teachers from acting on their concerns included time constraints due to curriculum, and a “lack of resources in their student wellbeing teams” (Trudgen & Lawn, 2011, p.137).

The effects of a mental health literacy campaigns on teachers’ awareness of the signs and symptoms of a mental health disorder in students was investigated by Langeveld and colleagues (2011), who employed a cross-sectional comparative design utilizing a structured survey questionnaire. Four schools from Norway, in an area which had an established mental health early detection and information program (Program Area), were compared against a control site of four schools from an area that had neither an early detection nor information program (No Program Area). Teachers from the Program Area were repeatedly exposed to information designed to increase their knowledge of mental disorders and the early symptoms of these problems. The investigators found that three- times as many teachers from the Program Area had participated in school-based mental health literacy seminars than those from No Program Area and further, that teachers from the Program Area had access to an early detection team for psychosis. They also report that teachers from the Program Area who were exposed to repeated mental health information and had access to a team of professionals to aid in early detection and intervention, reported an increased sense of confidence in the positive effects of treatment for mental health disorders. The researchers concluded that participation in mental health literacy training increased teachers’ mental health literacy as well as their confidence in their ability to successfully identify a student struggling with a mental disorder, and suggested their findings may indicate a causal relationship. Access to an early detection team, mental health literacy

campaigns and training programs designed for teachers may be a factor in the reduction of the duration of untreated mental disorders in youth (Lagneveld et al., 2011).

Research (Langeveld et al., 2011; Puura et al., 1998; Trudgen & Lawn, 2011) has shown that mental health literacy training for teachers may aid in helping teachers develop the knowledge and abilities to successfully recognise, refer to treatment, and support the learning and development of students with mental health challenges. In addition, this could both help improve teachers' confidence and competence to respond to student mental health issues (Langeveld et al., 2011). Ultimately, teachers' participation in mental health professional development programs and their application of their acquired mental health knowledge and skills may further improve the quality of life and learning for those students suffering with a mental health challenge (Langeveld et al., 2011).

### **Professional Development Programs for Teachers**

A Canadian Teachers Federation (CFT) survey assessed teachers' perspectives on student mental health (Froese-Germain & Riel, 2012). The findings from the CFT survey indicated the majority of teachers had not received professional development regarding student mental health issues, although most teachers identified a priority need for professional development in the area of student mental health (Froese-Germain & Riel, 2012). Specifically, teachers desired professional development to improve their knowledge and skills towards recognizing mental health problems in their students, as well as strategies for teaching and managing students with externalizing behavioural difficulties (Froese-Germain & Riel, 2012). According to Whitley and colleagues (2013):

“for any approach to be successful, school personnel need to have the knowledge, skills, and attitudes required to recognize mental health difficulties and know the appropriate steps to

take to both integrate these students effectively in classroom activities and to ensure that they receive the care they require” (p. 58).

As such, research and government reports on mental health have recommended that professional development for teachers regarding mental health is needed and warranted (Kirby & Keon, 2006; Whitley et al., 2013).

Professional development workshops designed to improve teachers knowledge, awareness, and recognition of mental health problems in students have been evaluated (Kirchner, Yoder, Kramer, Lindsey, & Thrush, 2000; Moor et al., 2000). In a pilot study by Moor and colleagues (2000), 16 teachers were tested prior to and after a two-hour workshop regarding recognizing students with depressive symptoms. The workshop consisted of four components: (a) an information session regarding the signs and symptoms of depression in youth, including questions to ask students; (b) a case study in which teachers were instructed to assess and apply their knowledge; (c) a session regarding students’ experiences and the impact of depression on their academic and social life; and (d) an open discussion. The results were not statistically significant and lacked generalizability, which the researchers suggested may have been due to the small sample size or that the majority of participants were experienced teachers. Although not statistically significant, results indicated a trend such that teachers felt more capable in recognizing depressed students after receiving the training.

Kirchner and colleagues (2000) also implemented a one group pre-test, post-test design to evaluate an educational program designed to increase teachers’ awareness about youth depression. The one-day training program aimed to accomplish four goals: (a) to increase participants’ knowledge about the biological and psychosocial causes of depression and appropriate treatments; (b) to provide educators with skills to identify the signs and symptoms of

depressed youth; (c) to enhance participants' knowledge of appropriate referral options; and (d) to encourage educators to share their acquired knowledge about youth depression with both their colleagues and students. The participants included 62 kindergarten to grade 12 science teachers, who completed three self-report surveys: the first was administered prior to the start of the training; the second questionnaire was completed immediately following the course; and, the final survey was administered at a nine-month follow-up. Results revealed significant increases across all areas, which were maintained at the nine-month follow-up, including teachers' ability to recognize and support students suffering from depression or suicidal ideation. In addition, the researchers found over 90% of their participants at the nine-month follow-up reported sharing their acquired knowledge from the program with fellow colleagues, and 80% shared the program information with their students. A limitation of this research was a threat to internal validity; since the study lacked a comparison group, they could not determine if the findings demonstrating teachers' increased knowledge was the direct result of the program. Despite the limitations of this study the results indicated that the program goals were supported, in that professional development seemed to improve educators' awareness, skills, and confidence in supporting students suffering from depression.

Various professional development programs designed to increase teachers' awareness and understanding of students suffering from anxiety and depressive disorders have similar goals. According to Guskey (2002), the goal of professional development training is to foster change in classroom instructional or management strategies and practices of teachers, in their attitudes and knowledge, and in the positive learning outcomes of their students. Koller and Bertel (2006) outline three concepts that teachers should understand and be able to implement following training: (1) knowing their role as a teacher "in the prevention of mental health

problems” (p. 209); (b) recognition of mental health symptoms and identifying students who may be struggling with mental health disturbances; and (c) knowing how to support a child with mental health problems in the classroom by creating “a positive, strengths-based learning environment” (ibid).

In a literature review of health campaigns aimed at changing public health-related attitudes and behaviours, researcher Noar (2006) summarized several principles of an effective campaign, such as using a theory to provide a framework for the design and evaluation of the campaign (i.e., mental health professional development). In addition, Noar suggested gathering a clear understanding of the needs and problems of the target audience by conducting formative research, and if possible segment the audience into groups based on important characteristics (i.e., demographic variables, personality, attitudes, and self-efficacy). Conducting formative research and segmenting the audience is important in order to tailor the message and information to the behaviours and needs of the target and/or segmented audience (Noar). Furthermore, Noar recommended utilizing novel and creative means of presenting health information and to encourage interpersonal discussions, which may cause participants to be influenced by significant others (i.e., colleagues, friends, or managements). Providing teachers the opportunity for group discussions and social interaction during mental health literacy training is also important because teaching can be an isolating occupation; thus, social interaction with colleagues can help protect them from occupational stress and feelings of isolation (Howard & Johnson, 2004; Inman & Marlow, 2004). Finally, the campaign must be evaluated using a study design that is valid and reliable to assess the effectiveness of the health campaign on participants’ attitudes and behaviours (Noar).

### **The Theory of Planned Behaviour**

In a review of campaigns aimed at improving mental health literacy among students and/or teachers, researchers Kelly, Jorm, and Wright (2007) found only a limited number of campaigns were developed using a proven theoretical basis. Of the few studies which demonstrated a theoretical basis, one study by Pearce, Rickwood, and Beaton (2003, as cited in Kelly et al., 2007) used the theory of planned behaviour to develop a suicide intervention project. The Theory of Planned Behaviour provides a theoretical framework for understanding determinants of behaviour, such that attitudes, perceived behavioural control, and subjective norms interact to influence behavioural intentions, which in turn determine actions or behaviours (Ajzen, 1991; Mahat, 2008). Ajzen is a proponent of a two-component theory of attitudes consisting of only the affective and cognitive components (Ajzen, 1991; De Boer et al., 2012). According to Ajzen (1991), “perceived behaviour control refers to people’s perception of the ease or difficulty of performing the behavior of interest” (p.183). In a meta-analysis of the Theory of Planned Behavior by Armitage and Conner (2001), it was found that both self-efficacy and perceived behavioural control were strong predictors of behavioural intention and action. Moreover, Armitage and Conner (2001) found that self-efficacy is clearly defined, operationalized, and explains slightly more of the variance in behavioural intention than perceived behavioral control. Therefore, Armitage and Conner (2001) recommend that self-efficacy be the selected measure of “perceived control” within the Theory of Planned Behaviour instead of measures for perceived behavioural control. Subjective norm describes perceived social pressure to either perform or refrain from performing behaviour (Ajzen, 1991). Social pressure arises from significant others, such as persons of authority or role models (Ajzen, 1991; Kennedy & Kennedy, 1996).

In the present research, the Theory of Planned Behaviour provided a framework for understanding teachers' behaviours and for the evaluation of a professional development program to effectively change their behaviours or help them to adopt new classroom strategies and interventions. Teachers' attitudes and behavioural intentions towards inclusive education for students with mental health concerns were measured using the MATIES (Mahat, 2008), which evaluated the three components of attitudes: cognitive, affective, and behavioural intention. Following the recommendation from Armitage and Conner (2001), "perceived control" was measured using the TSES which is a measure of teacher self-efficacy (Tschannen-Moran & Hoy, 2001). Research has shown that teachers' perceived subjective norms are significantly influenced by social pressure from significant others such as, principals or department heads (Kennedy & Kennedy, 1996). The subjective norm component was not assessed, since participants in the current study included both teachers and significant others, such as department heads or supervisors, and principals. Therefore, it was assumed that the subjective norms component was irrelevant to this population of teachers who were receiving professional development alongside their significant others. The removal of the subjective norm component was consistent with other research showing that it was weakly related to intention, rarely predicted intention, and was an inadequate component of the Theory of Planned Behaviour (Armitage & Conner, 2001).

### **The Current Research**

Research has shown that teachers have an influential role in the lives and learning of students. Consequently, in order to increase the number of children receiving early intervention and treatment (Langeveld et al., 2011) educators require professional development training regarding student mental health issues (Kirby & Keon, 2006; Whitley et al., 2013). The current

study aimed to explore the immediate and long-term effectiveness of a professional development program designed for teachers regarding the impact of anxiety and depression on student learning. The present study implemented a one group pre-test, post-test design to investigate teachers' knowledge, efficacy, and attitudes of students struggling with anxiety and depression, and how to identify and support the learning and development of these students.

### **Summary of Literature Review and Research Questions**

Previous research has shown that professional development for teachers regarding student mental health issues was positively correlated with their self-efficacy and ability to identify, refer, and support students with anxiety and depression in the classroom (Jorm et al., 2010; Kirchner et al., 2000; Koller & Bertel, 2006). The previous research has been primarily exploratory producing inconsistent results, lacked a theoretic framework, and did not use established instruments to assess teachers' self-efficacy and attitudes (Kelly et al., 2007; Kirchner et al., 2000; Moor et al., 2000). In the present study, the Theory of Planned Behaviour provided the framework for understanding the process by which a professional development workshop influenced teachers' knowledge, self-efficacy, attitudes, and implemented knowledge/skills (i.e., behaviour change). Additionally, the Bioecological Model of Human Development (Bronfenbrenner & Morris, 2006) provided a context for understanding the role of teachers as important influencers in a students' ecological system of development, learning, and growth (Cook & Kilmer, 2010). Therefore, this study aimed to build on previous research to investigate the extent to which participation in a two-hour mental health workshop would influence teachers' knowledge, self-efficacy, and attitudes towards identifying and supporting students with anxiety and/or depression. Furthermore, participants would be asked to report to see if any gains would be maintained at a three-month follow-up.



## **Hypotheses**

This research hypothesized that the impact of a workshop would produce significant short and long-term improvements on teachers' knowledge and perceived ability towards identifying, supporting, and/or including students with mental health challenges in the classrooms. Furthermore, it was expected that these improvements would be influenced by participants' perceived self-efficacy and attitudes. It is important to note that changes in attitudes and self-efficacy may not be apparent immediately following a professional development workshop (Guskey, 2002). Guskey (2002) proposed that changes occurred following a workshop when a teacher was able to apply their knowledge and skills, and observe improvements in the learning outcomes of their students. Consequently, it was expected that improvements in teachers' sense of efficacy and attitudes would be apparent at the three-month follow-up. Specifically, this research hypothesized that improvements in teachers' knowledge and perceived ability in identifying, referring, and supporting the learning and health students with anxiety/depression, would be positively correlated with teacher efficacy and positive attitudes.

## **Methodology**

This study utilized a one group pre-test, post-test design, which was consistent with previous research regarding the effectiveness of professional development workshops (Kirchner et al., 2000; Moor et al., 2000). The dependent variables included: participants' attitudes, knowledge, and self-efficacy in identifying and supporting students with anxiety and depression in the classroom. The intervention was the professional development workshop regarding the impact of anxiety and depression on student learning. Ethics approval was received from the sponsoring university's Non-Medical Research Ethics Board (Appendix A).

Comparable to the principles outline by Noar (2006), the workshop evaluated in the current research was developed in order to address teachers' concerns and their request for professional development in the area of student mental health. Essentially, formative research was conducted by the school-board involved in the current study to assess teachers' knowledge, awareness, and comfort with student mental health issues. Teachers from this school board indicated a desire for mental health professional development because they felt overwhelmed and ill-prepared to address the mental health needs of students struggling with anxiety and/or depression. Consequently, the school board involved in the current study and a mental health strategic planning team developed a workshop regarding the impact of anxiety and depression on learning and how to identify and support students with these mental health challenges.

Furthermore, the workshop evaluated in the present study used creative means to present the workshop content, and group discussions were encouraged which may have fostered social interaction and possibly a sense of social and professional support. The measures used in the current research were evaluated for statistical reliability and most of the scales used were from established instruments (i.e., TSES and MATIES). As Noar (2006) recommended, the present study was designed and the results were interpreted based on a theoretical framework. The Bioecological model of human development (Bronfenbrenner & Morris, 2006) provided a context for understanding the role of teachers and all school personal as important key influencers in a child's ecological system for development and growth. This theory helped to frame the results of the current study within a system of care approach, in that a workshop may have influenced teachers' knowledge and ability to respond and support students with mental health challenges, which could improve the lives, learning, and development of all students. In addition, the Theory of Planned Behaviour (Ajzen, 1991; Mahat, 2008) provided the framework

for understanding the process by which a professional development workshop may have influenced teachers' knowledge, self-efficacy, attitudes, and implemented knowledge/skills (i.e., behaviour change).

### **Participants**

The population included 126 teachers, teaching support staff, or administrators from a school board in Southwestern Ontario, who voluntarily signed -up for the mental health workshop through an online employee portal, on a first-come basis, and all workshop attendees were invited to partake in the study. The professional development workshop was free of charge and held at the school board head offices after school hours. As participants arrived at the workshop they were invited to have a seat at an array of 6-person tables, and each seat included a research package.

Eighty-three percent ( $n = 105$ ) of the eligible teachers agreed to participate in the present study. Of the 105 teachers that agreed to participate in the research, 57 people consented to participate in the three-month follow-up; however, only 24 respondents actually completed the three-month follow-up questionnaire.

### **Professional Development Workshop Design**

The school board surveyed almost 4000 of their teachers to assess their knowledge, awareness, and comfort with student mental health issues. Teachers from this school board indicated a desire for mental health professional development because they felt overwhelmed and ill-prepared to address the mental health needs of their students. The learning objectives of the workshop and the research questionnaire were developed in collaboration with the school board's Mental Health Strategic Planning Group and the Centre for School Based Mental Health. The workshop focused on the impact of anxiety and depression on learning, how to support a

student who is depressed and/or anxious, and what depression and/or anxiety look like in the classroom. The program was developed and facilitated by education colleagues and community experts, and included both direct teaching and interactive sessions. The rationale behind the interactive component was to provide participants with an opportunity to apply their knowledge, skills, and techniques acquired from the workshop training, as well as to share and connect with their fellow colleagues. The opportunity to connect with colleagues was assumed to be important for this population of teachers, because research has shown that social interaction with colleagues can help protect teachers from occupational stress and feelings of isolation (Howard & Johnson, 2004; Inman & Marlow, 2004). The workshop began with the researchers informing the group about the study, inviting the group to participate in the pre-workshop survey, and sign a consent form and provide their contact information if they agreed to participate in the three-month follow-up evaluation. Following an explanation of the study and invitation to participant in the research, the workshop commenced.

### **Measures**

Consistent with the one-group pre-test, post-test design of this study, the evaluation surveys (Appendix B) were administered up to three times; immediately before (T1) and after (T2) the workshop, as well as at the three-month follow-up (T3). All subjects were provided a letter of information (Appendix C), and those who agreed to participate in the three-month follow-up evaluation were given an informed consent form (Appendix D), in order for them to give their permission and provide their contact information to be contacted.

**Knowledge and need for development measure.** The survey contained several items on a six-point Likert-type of scale, which evaluated knowledge and need for development, perceived abilities, and awareness about students with anxiety and/or depression across three

subscales: (a) knowledge and understanding (12 items); (b) perceived skills and abilities (4 items); and (c) attitudes and awareness (2 items). Items on the knowledge and need for development scale were rated on a five-point Likert-type scale, where a lower score (i.e., 1) showed a smaller “need for development” on teachers’ knowledge and competency regarding student mental health issues, and a higher score (i.e., 5) suggested an urgent “need for development” required. In other words, a lower score indicated participants had a greater level of knowledge, skill, ability, or awareness on how to identify and support a student with anxiety or depression, and required little or no “need for development” in this area. Conversely a higher score suggested respondents had a decreased level of knowledge, skill, ability, or awareness in terms of their mental health knowledge and competency, and required an urgent or substantial “need for development” in the area. The reliability of this scale overall was .93, and the alpha coefficients of the three subscales ranged from .76 to .94.

**Self-efficacy measure.** Tschannen-Moran and Hoy’s (2001), short-form *TSES* scale, consisting of 12-items designed to record participants reports of self-efficacy, personal competency, and appraisal of the task at hand was used. The *TSES* is a self-report measure that assesses teachers own efficacy beliefs across three subscales: (a) classroom management, (b) instructional practices, and (c) student engagement. There are 4 items in each subscale of the short form. The *TSES* items are rated on a nine-point Likert-type scale ranging from 1-*nothing*, 3-*very little*, 5-*some influence*, 7-*quite a bit*, and 9-*a great deal*. Research has shown the *TSES* to be a reliable and valid instrument that measures teacher efficacy in accordance with self-efficacy theory (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001). Reliability of this scale was .95, which was in accordance with the alpha reliability of .90 reported by Tschannen-Moran and Hoy (2001).

**Attitude measure.** It proved difficult to find a measure of attitudes towards mental health issues. Existing attitude questionnaires were often outdated, and/or seemed highly negative and stigmatizing (Cohen & Struening, 1962; Link, Yang, Phelan, & Collins, 2004; Yee & Frutcher, 1971). Thus, attitudes towards including students with mental health concerns in the classroom were measured as a proxy for attitudes about mental health issues more generally using the MATIES, which is based on the three-component theory of attitudes, consisting of cognitive, affective, and behavioural components (Mahat, 2008). Research has shown the MATIES to be a valid and reliable measure of teachers' attitudes towards inclusive education, in accordance with the three-component theory of attitudes (MacFarlane & Woolfson, 2013; Mahat, 2008; Yan & Sin, 2013). The MATIES consists of 18 items in total, 6 items in each attitude component (cognitive, affective, and behavioural) that are rated on a six-point Likert scale from *Strongly Disagree* to *Strongly Agree*. Comparable to the modification described in the MacFarlane and Woolfson (2013) study, this research adapted every item on the MATIES to describe a "student with a mental health challenge", instead of a "student with a disability". Consequently, the MATIES was modified to measure participants' attitudes towards inclusive education of students with mental health challenges across the following three attitude components: (a) *cognitive*, perceptions or beliefs, (b) *affective*, feelings or emotions, and (c) *behavioural*, intentions to behave or act in a particular manner with respect to inclusive educational practices towards students with mental health challenges. The MATIES (Mahat, 2008) consisted of an irregular number of positive and negatively weighted items. In order to ensure an equal distribution of positive and negatively weighted items, three items assessing the affective component were modified to be positively inclined (i.e., "I am happy to adapt the curriculum to meet the individual needs of all students"), and three items measuring the behavioural component were

adapted to be negatively weighted (i.e., “I am reluctant to modify the physical environment to include students with a mental challenge in the regular classroom”). Replacing items to reflect more positive or negative attitudes was consistent with previous research (De Boer et al., 2012). The reliability scores of the subscales of this modified MATIES ranged from .54 to .77, which were lower in comparison to the alpha coefficients between .75 and .91 as reported by Mahat (2008), and MacFarlane and Woolfson (2013).

### **Procedure**

Teachers arrived at the workshop, checked in for attendance records, and were invited to choose a seat on a first-come basis. Tables were organized prior to teachers arrival, with a package containing the survey instruments (Appendix B), letter of information (Appendix C), and informed consent form (Appendix D) for the three-month follow-up. Immediately prior to the start of the workshop a researcher introduced themselves to the group and read from a script (Appendix E), which explained the purpose and process of the research, letter of information, informed consent, confidentiality, and the three surveys, including when each survey was to be completed and where to return the completed evaluations. The researcher then answered any questions posed by the group, after which the participants were invited to complete the pre-workshop evaluation.

Teachers, teaching support staff, and educators then participated in the two hour workshop. Immediately after the workshop as well as three-months after, pending consent and contact information, participants were presented with the follow-up surveys. The three-month follow-up survey was delivered to consenting participants through the researcher’s email (Appendix F), in which participants were instructed to download the survey attached to the email, complete, and return as an attachment.

## **Analysis**

The data analysis began with a summary of participants' demographic information including gender, work-related role, years of service, work setting, past learning experience on this topic, and attendance at past workshops in this series, as well as plans to attend future seminars. Then aggregate's of the mean item score (*MIS*) were created for each scale in T1, T2, and T3 (i.e., learning objectives scale, TSES, and MATIES). As a result, there were 16 *MIS* aggregate scores: 2 for TSES (i.e., T1 and T3 mean TSES scores) 2 for MATIES (i.e., T1 and T3 mean MATIES scores), and 12 for the knowledge and need for development scale (i.e., T1, T2, and T3 mean learning objective scores) as well as its subscales (i.e., T1, T2, and T3 mean knowledge and understanding scores, mean skills and abilities scores, and mean attitudes and awareness scores). The aggregate scores were used when conducting comparison and correlational analysis. The negatively weighted items in the MATIES scale were reverse coded in order to ensure that higher scores represented more positive attitudes towards the inclusive education of a student with a mental health challenge.

The alpha coefficient of the overall TSES, MATIES, and learning objectives scales including the three subscales of knowledge and understanding, skills and abilities, as well as attitudes and awareness were calculated using Cronbach's Alpha test to assess the reliability of these measures. Relationships between the dependent variables in the current study (i.e., knowledge, self-efficacy, and attitudes) were evaluated using Pearson's correlation test. Further, paired samples *t*-tests were used to examine differences between mean survey scores from participants T1, T2, and T3. The aim was to determine the extent to which the intervention (e.g., the workshop) would positively influence changes in the dependent variables (e.g., participants' self-efficacy, knowledge, and attitudes) within the same group of participants over the testing



periods. In addition, a one-way repeated-measures analysis of variance (ANOVA), was used to compare the learning objectives data and associated subscales across the three testing periods.

**Missing data.** Participants who were missing more than 20% of items on a scale were eliminated from that scale. In cases where participants were missing less than 20% of items on a scale, the missing item was replaced with the participant's average for that scale. There were 105 subjects who agreed to participate in the current study, however due to missing data 10 responses from the knowledge and need for development scale were removed from the data set. Additionally, 11 responses from the TSES and MATIES scales were removed because of missing values. Only 24 respondents actually completed the T3 questionnaire, and 1 response from the T3 TSES scale was removed from the data set.

## Results

### Demographic Data

Teachers from a Southwestern Ontario school board attending a professional development workshop about student mental health were asked to participate in the present study. Of the 126 teachers who attended the workshop, 83.33% ( $n = 105$ ) agreed to participate in the study, and 54.3% ( $n = 57$ ) consented to participate in the three-month follow-up. Although, 57 people agreed to participate in the three-month follow-up, only 24 actually did so. In terms of past experience 60% ( $n = 63$ ) of respondents indicated that they had previously taken a class or workshop on the topic of supporting and identifying students with anxiety and depression.

The majority of participants were female 83.8% ( $n = 88$ ), while 7.6% ( $n = 8$ ) were male, and 8.6% ( $n = 9$ ) of respondents did not indicate their gender (i.e., gender options included; male, female, or other). The majority of participants 34.3% ( $n = 36$ ) were teachers and Table 1

below outlines the frequency and percentage of participants' work-related position within the school board.

Table 1  
*Distribution of Respondents Reported Position within the school board*

Reported Position	Frequency	Percentage
Teacher	36	34.3
Educational Assistant	21	20
Learning Support Teacher	15	14.3
Social Work/SSW	11	10.5
School Administrator	6	5.7
Support Staff	5	4.8
Missing/Not reported	4	3.8
Other	3	2.9
Guidance Staff	2	1.9
Student Success Teacher	1	1.0
SL/P	1	1.0

More than half of the respondents worked in elementary schools 53.3% ( $n = 56$ ), 22.9% ( $n = 24$ ) worked in secondary schools, and 12.4% ( $n = 13$ ) worked in both elementary and secondary school settings. The years of experience working in education ranged widely from less than one full year to 36 years of experience, with an average of 13.38 years ( $SD = 9.36$ ) of service.

### **Scale Descriptives**

The mean scores, standard deviation, and alpha reliability results of the pre-test, post-test, and three month follow-up are outlined in Table 2 below.

Table 2  
*Participants T1, T2, and T3 Mean Scores, Standard Deviation, and Reliability Results*

Scale	T1		T2		T3		$\alpha$
	<i>N</i>	Mean ( <i>SD</i> )	<i>N</i>	Mean ( <i>SD</i> )	<i>n</i>	Mean ( <i>SD</i> )	
Knowledge and Need for Development	95	3.10 (0.65)	95	2.38 (0.71)	24	2.18 (0.56)	.93
Knowledge and Understanding	95	3.12 (0.67)	95	2.42 (0.74)	24	2.21 (0.58)	.90
Skills and Abilities	95	3.08 (0.73)	95	2.38 (0.70)	24	2.19 (0.52)	.76
Attitudes and Awareness	95	3.05 (0.89)	95	2.16 (0.86)	24	2.00 (0.72)	.94
TSES	94	6.45 (1.28)	—	—	23	7.04 (0.98)	.95
MATIES	94	4.93 (0.62)	—	—	24	5.23 (0.40)	.83
Cognitive component	94	4.86 (0.74)	—	—	24	5.09 (0.55)	.69
Affective component	94	4.80 (0.68)	—	—	24	5.00 (0.57)	.54
Behavioural component	94	5.13 (0.80)	—	—	23	5.63 (0.57)	.77

*Note: TSES = teacher sense of efficacy scale; MATIES = multidimensional attitudes toward inclusive education scale.*

**Correlation Analysis**

The correlation coefficients for the T1 knowledge and need for development, TSES, and MATIES scales are summarized below in Table 3. It was expected that participants knowledge, ability, skills, and awareness (i.e., knowledge and need for development scale) towards identifying and supporting students with mental health challenges would be positively correlated with teacher efficacy (i.e., TSES) and positive attitudes (i.e. MATIES). This was partially supported by the results, as can be seen in the correlation matrix.

Table 3  
*Correlation coefficients for the pre-test learning objectives, TSES, and MATIES*

Scale	1	2	3
1. Knowledge and Need for Development	—	-.06	-.16
Attitudes and Awareness	—	—	-.17
2. TSES	-.06	—	.25*
3. MATIES	-.16	.25*	—

*Note: TSES = teacher sense of efficacy scale; MATIES = multidimensional attitudes toward inclusive education scale.*

\* $p < .05$ , two-tailed.

**Repeated Measures ANOVA**

Table 4 summarizes the knowledge and need for development and associated subscales survey results for the pre-test, post-test, and three-month follow-up one-way repeated measures ANOVA. There were significant differences seen across all testing periods on the entire knowledge and need for development scale and the incorporated subscales.

**Paired Samples t-test**

Table 4 outlines the post-hoc analysis results for the T1, T2, and T3 paired t-test results, including the degrees of freedom. Statistically significant increases were evident between T1 and

T2, as well as T1 and T3. However, no significant differences were detected between T2 and T3 on any of the scales; there was a trend in the expected direction between T2 and T3 for the knowledge and need for development scores and subscales, but these were not significant.

Table 4  
ANOVA results and tests of significance at T1, T2, and T3 on scale scores.

Scale	<i>F</i> ( <i>df</i> )	<i>p</i>	T1 and T2 <i>t</i> ( <i>df</i> )	T1 and T3 <i>t</i> ( <i>df</i> )	T2 and T3 <i>t</i> ( <i>df</i> )
Knowledge and Need for Development	29.39 (2, 46)	.000	10.78 (94)**	6.22 (23)**	0.30 (23)
Knowledge and Understanding	27.83 (2, 46)	.000	9.78 (94)**	6.23 (23)**	0.32 (23)
Skills and Abilities	18.79 (2, 46)	.000	9.83 (94)**	4.53 (23)**	0.56 (23)
Attitudes and Awareness	15.33 (2, 46)	.000	8.62 (94)**	4.58 (23)**	0.25 (23)
TSES	—	—	—	2.30 (20)*	—
MATIES	—	—	—	1.54 (19)	—
Cognitive component	—	—	—	-1.13 (23)	—
Affective component	—	—	—	-.47 (23)	—
Behavioural component	—	—	—	-1.77 (22)	—

Note: TSES = teacher sense of efficacy scale; MATIES = multidimensional attitudes toward inclusive education scale.

\**p* < .05, two-tailed. \*\**p* < .01

### Discussion

The current study was conducted to examine the immediate and long-term effectiveness of a workshop designed for teachers' regarding the impact of anxiety and depression on student

learning and how to help students learn. Participants completed a questionnaire immediately prior to and following the workshop, and again at a three-month follow-up. Specifically, teachers' knowledge, perceived skills and abilities, attitudes and awareness towards identifying and supporting students with anxiety and depression were assessed across all three testing periods; sense of efficacy towards engaging student learning, and attitudes towards inclusive education were evaluated only prior to the workshop (T1) and at the three-month follow-up (T3). Teachers' sense of efficacy and attitudes were not measured immediately following the workshop, because consistent with previous research (Guskey, 2002), it was expected that any changes in these areas would only be detectable after teachers were able to apply their acquired knowledge and skills in their classroom and observe positive outcomes.

The importance of addressing the mental health concerns of children and youth within the school system has been made evident through research (Whitley et al., 2013), Canadian teaching organizations (Froese-Germain & Riel, 2012), and reports commissioned by the Canadian government (Kirby & Keon, 2006). Teachers have repeatedly expressed concerns of feeling overwhelmed, incompetent, and/or ill-prepared to address the mental health needs of their students, often because they feel they lack knowledge, skills, competence, and/or resources in this area of student mental health (Froese-Germain & Riel; Koller & Bertel, 2006; Whitely et al., 2013). Consequently, the workshop evaluated in the current study was developed in order to address teachers' concerns and their request for professional development in the area of student mental health. The overarching goal in training teachers was to improve their competency and self-efficacy in the hopes of improving the lives of students struggling with mental health problems. Research has shown that early intervention and treatment of children and youth struggling with mental health problems has resulted in higher recovery rates, symptom

alleviation, and improved outcomes in their overall mental and physical health, as well as their social, emotional, and academic development (Trudgen & Lawn, 2011).

Given the influential role teachers hold in the lives of students, they are instrumental in the early identification and intervention of students struggling with mental health concerns. Previous research has shown that in order for teachers to recognize students with mental health issues, they need professional development in order to have the awareness, knowledge, skills, and resources to help their students (Jorm et al., 2010; Kirchner et al., 2000; Koller & Bertel, 2006; Langeveld et al., 2011; Moor et al., 2000). Consequently, the current workshop was developed to address teachers' request for mental health training in order to positively influence their knowledge, perceived skills and abilities, self-efficacy, and attitudes towards identifying and supporting students with mental health concerns.

In the present study, the Theory of Planned Behaviour (Ajzen, 1991; Mahat, 2008) provided the framework for understanding the process by which a professional development workshop may have contributed to teachers' knowledge, self-efficacy, attitudes, and implemented knowledge/skills (i.e., behaviour change). According to the Theory, the variables of knowledge, perceived ability, efficacy, and attitudes interact to influence teachers' behavioural intentions and actions, ideally towards identifying and supporting students with mental health issues. In addition, the Bioecological model of human development (Bronfenbrenner & Morris, 2006) provided a context for understanding the role of teachers and all school personal as important key influencers in a child's ecological system for development and growth. Thus, in a systems of care approach (Cook & Kilmer, 2010), teachers are seen as a vital factor in a child or youth's ecological system, and they are in a position to impact the growth and mental health of their students. The Bioecological theory helped to frame the results of the current study within a

system of care approach, in that a workshop may have influenced teachers' competency and ability to respond and support students with mental health difficulties, which could improve the lives, learning, and development of all students.

### **Summary of Research Findings**

The findings from the present research, consistent with previous research (Jorm et al., 2010; Kirchner et al., 2000; Koller & Bertel, 2006; Langeveld et al., 2011; Moor et al., 2000), revealed that teachers sense of efficacy and knowledge and need for development in identifying, supporting, and engaging the learning of students with anxiety and/or depression, improved following participation in a 2-hour workshop. Furthermore, the results in the present study suggested that the improvements seen in teachers following the workshop were maintained at the three-month follow-up. In other words, teachers' sense of efficacy (i.e., TSES scores), knowledge, skills, and awareness (i.e., knowledge and need for development scale and subscales scores) towards identifying and supporting students with anxiety and depression improved from "some need for development" prior to the workshop, to "little need for development" immediately after the workshop, and this improvement did not change at the three-month follow-up. These findings suggest the workshop may have contributed to their mental health literacy and competency towards recognizing and responding to students with mental health concerns, as well as supporting their learning and development within the classroom.

The population of teachers from the school-board involved in the current study specifically requested mental health professional development because they felt overwhelmed and ill-prepared to address the mental health needs of their students. Perhaps the findings in the current study indicate that teachers' concerns were addressed by the workshop, evidenced by an improved sense of efficacy, more knowledgeable, and required less of a need for development in



this area of student mental health. However, given that only 24 of the 95 participants involved in the study completed the three-month follow-up questionnaire the reliability of these results must be questioned. Despite the significant results seen at T3 in teachers scores on the knowledge and need for development and TSES scales, the small sample size ( $n = 24$ ) at T3 challenges our ability to make trustworthy conclusions about the long-term effects of the workshop. Perhaps this indicates that teachers require ongoing mental health training, which is consistent with previous research recommendations that teachers require repeated or ongoing professional learning opportunities in the area of student mental health issues because the topic is complex and requires considerable information (Davies et al., 2009; Whitley et al., 2013).

The Theory of Planned Behaviour (Ajzen, 1991; Mahat, 2008), provided a framework in the current study for understanding teachers' behaviours and how a workshop would influence their knowledge, perceived skills and abilities, self-efficacy and attitudes towards applying their newly acquired knowledge/skills (i.e., behaviour change) in the classroom. Thus, it was expected that improvements in these components would be positively correlated with teacher efficacy and positive attitudes; however, this was not supported. Perhaps the small sample size of 24 participants at the three-month follow-up was insufficient to achieve sufficient statistical power in this analysis. The significant relationship detected between teachers' self-efficacy and positive attitudes points to a connection between these important constructs, and provides support for The Theory of Planned Behaviour (Ajzen, 1991; Armitage & Conner, 2001, Mahat, 2008), which posits that attitudes and self-efficacy interact to influence behavioural intentions, as a useful framework to explain the mechanisms that determine behaviours or actions. With this line of thinking the results indicate that participation in the workshop may have influenced teachers' mental health knowledge, sense of efficacy, and maintained their already existing positive

attitudes. This may have then encouraged teachers to adopt and apply new classroom strategies and interventions to support the learning and meet the needs of students with mental health difficulties.

The Theory of Planned Behaviour (Armitage & Conner, 2001; Eagly & Chaiken, 1993), and previous research (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001), have shown that self-efficacy and attitudes are important factors in teachers' behavioural intention and action towards promoting student learning as well as identifying and supporting students with mental health challenges. Considering the Theory of Planned Behaviour, the results of the current study show that teachers held positive attitudes which were positively associated with their sense of efficacy, and this self-efficacy along with their knowledge being improved following participation in the workshop, may lead teachers to adopt or increase their behaviours towards identifying and supporting students with mental health challenges.

### **Findings In Relation to Previous Research**

Previous research investigating the influence of mental health professional development on teachers' knowledge, self-efficacy, and attitudes was limited (Whitley et al., 2013) and often poorly evaluated (Kelly et al., 2007), exploratory, lacked a theoretical framework, and/or did not use established instruments to measure self-efficacy or attitudes (Kirchner et al., 2000; Moor et al., 2000). Consequently, the current study aimed to build on previous research by adopting the Theory of Planned Behaviour (Ajzen, 1991; Mahat, 2008) to provide a framework for understanding the process by which professional development may have influenced teachers' knowledge, self-efficacy, attitudes, and implemented knowledge/skills (i.e., behaviour change). In addition, the Bioecological Model (Bronfenbrenner & Morris, 2006; Cook & Kilmer, 2010) helped to frame the results of the current study within a systems of care approach, in that a

workshop may have influenced teachers' competency and ability to respond and support students with mental health difficulties, which could improve the lives, learning, and development of all students. Furthermore, the present research utilized the psychometrically sound TSES to measure teachers' sense of efficacy, and the MATIES was adapted to test teachers' attitudes towards inclusive education of students with mental health challenges. Both the TSES and MATIES were constructed based on theoretical frameworks and have been shown to be reliable and valid (Klassen et al., 2011; MacFarlane & Woolfson, 2013; Mahat, 2008; Tschannen-Moran & Hoy, 2001; Yan & Sin, 2013).

The present study provided support for the reliability of the TSES, which is consistent with previous research (Klassen et al., 2011; Tschannen-Moran & Hoy, 2001) showing high internal consistency. Although previous research adapting the MATIES showed the subscales to have high internal consistency (MacFarlane & Woolfson, 2013; Mahat, 2008; Yan & Sin, 2013), the reliability scores in the current study did not mirror those; in the present study the alpha reliability scores of the MATIES cognitive and affective subscales were shown to be moderate, and only the behavioural component was shown to have high internal consistency. This finding that the behavioural subscale was shown to have the highest alpha reliability score, was consistent with previous research using the MATIES (MacFarlane & Woolfson, 2013; Mahat, 2008). Perhaps this finding suggests the MATIES may not be a reliable measure for assessing cognitive and affective attitudes, while the behavioural component may be a reliable tool for evaluating teachers' behavioural attitudes and intentions towards inclusion of students with mental challenges in the classroom. Considering the MATIES is a relatively new scale (Mahat, 2008), more research using and evaluating the validity and reliability of this measure is needed.

Previous research investigating professional development as a means of developing teachers' mental health literacy and competency was limited (Weston et al., 2008). The current study seeks to contribute to this gap in the literature. Consistent with previous research the current study has shown that professional development training for teachers has the potential to significantly improve their knowledge, skills, perceived abilities, attitudes, awareness, and self-efficacy towards identifying, teaching, and supporting students with mental health challenges (Jorm et al., 2010; Kirchner et al., 2000; Langeveld et al., 2011; Moor et al., 2000).

Consequently, the results of the present study provide preliminary evidence supporting the claim that professional training for teachers is both needed and warranted (Whitley et al., 2013).

Specifically, research (Jorm et al., 2010; Kirchner et al., 2000; Koller & Bertel, 2006; Langeveld et al., 2011; Whitley et al., 2013) has shown that professional development can positive influence teachers mental health knowledge, skills, abilities, self-efficacy, and attitudes, which can increase their competency and capacity to help improve the lives, learning, and development of students with mental health challenges (Guskey, 2002).

### **Implications for Teachers and Teacher Education**

Teachers hold an influential role in the lives, learning, and development of children and youth (Cook & Kilmer, 2010), and there are good reasons to understand that improvements in their mental health literacy and competency may positively impact the mental health, learning, and development of their students. Thus, the current results can be seen as supportive of effective teacher preparation and professional development regarding student mental health issues, and crucially important in creating systemic change within schools in which the mental health of all students is promoted (Weston et al., 2008).

In terms of teachers' positive attitudes, the results suggested that prior to the workshop, teachers held "somewhat" strong positive attitudes towards inclusive education of students' with mental health challenges, which did not change at the three-month follow-up. Perhaps this finding was related to the voluntary sampling in the current research. Specifically, the participants in the present study were recruited through convenience sampling. Relating to the Theory of Planned Behaviour (Armitage & Conner, 2001; Eagly & Chaiken, 1993), which suggests that attitudes are an important factor in behavioural intention and action; conceivably, the participants in the current study may have been motivated to attend the workshop because they held positive attitudes towards students with mental health challenges. In other words, the results of the current study may suggest that participants who voluntarily signed-up for the workshop already held positive attitudes towards helping students with mental health challenges, which in turn may have been a motivator in their decision to attend.

Theory of Planned Behaviour (Ajzen, 1991; Mahat, 2008) provided a framework for understanding the process by which a mental health workshop may have contributed to teachers' knowledge, self-efficacy, attitudes, and implemented knowledge/skills (i.e., behaviour change). This theory posits that attitudes, self-efficacy, and subjective norms interact to influence behavioural intentions which in turn determine actions or behaviours (Ajzen, 1991; Armitage & Conner, 2001). In the current research, the subjective norm component was not assessed, because it was assumed to be irrelevant to the population of teachers who participated in mental health workshop alongside colleagues and support staff. The removal of this component was consistent with other research, which found the subjective norm or social pressure component to be a weak determinate in behaviour change (Armitage & Conner, 2001). Despite this, social support may be an important component in influencing teachers, since teaching is considered one of the most

isolating occupations in terms of social collaboration with colleagues (Cookson, 2005), and this social isolation may contribute to occupational stress (Inman & Marlow, 2004). Research has shown that a strong sense of social support with school colleagues can be a protective factor against occupational stress (Howard & Johnson, 2004; Inman & Marlow, 2004). Since attendees from various positions within the school, volunteered to participate in the workshop and were shown to hold “somewhat” strong positive attitudes towards students with mental health challenges in the classroom, combined with the socially interactive design of the workshop, perhaps teachers felt connected to a system of support with their fellow colleagues. In addition, the present workshop was designed to meet teachers concerns regarding feeling overwhelmed and ill-equipped to address the needs of students with anxiety and/or depression; perhaps a sense of social support gained from the workshop alleviated teachers’ concerns and stress regarding student mental health issues, which may have contributed to the improvements seen in their mental health knowledge, perceived skills and abilities, and self-efficacy. Considering the protective factor of social support with colleagues (Howard & Johnson, 2004; Inman & Marlow, 2004), future researchers evaluating teacher professional development may want to investigate the influence of workshop social interaction on teachers learning and capacity to adopt new learning strategies and behaviours. In the midst of a technological and online era, investigating the influence of workshops with opportunities for social interaction and collaboration may be of particular importance since many professional development opportunities are offered online.

Perhaps future research should investigate the characteristics, beliefs, and/or attitudes of teachers who volunteer for mental health professional development. According to Noar (2006) an effective health campaign is more likely to be successful at changing behaviour (i.e., learning how to identify and support youth with mental health challenges) when the audience is

segmented into groups based on important characteristics (i.e., attitudes, self-efficacy), and the message or training is tailored to that segmented group. Consequently, understanding the teacher who volunteers for mental health training may be an important consideration when creating an effective mental health workshop designed to teach teachers how to identify and support students with mental health challenges. Furthermore, many professional development opportunities for teachers are voluntary. Thus, investigating the factors (i.e., attitudes, self-efficacy, levels of stress) which lead teachers to both volunteer for, or decline opportunities for, mental health training may be an important area for future research, since it has been established that professional development is needed and warranted (Kirby & Keon, 2006; Whitley et al., 2013).

Mental health professional development is important for both teachers who are in the classroom, as well as pre-service teachers. Whitley and colleagues (2013), note that mental health literacy is becoming an important area of education in pre-service Bachelor of Education (B.Ed.) programs. It has been estimated that approximately 25% to 50% of new teachers leave the field within their first three years of teaching experience, due to occupational stress (as cited in Inman & Marlow, 2004). Thus, mental health literacy is important for pre-service teachers because new teachers are leaving the profession at astonishing rates due to occupational stress, in part due to feeling incompetent to address student mental health problems (Davies et al., 2009; Inman & Marlow, 2004; Whitley et al., 2013). Consequently, in order to retain new teachers and mitigate feelings of stress and incompetence pre-service teachers also need mental health literacy training (Weston et al., 2008; Whitley et al., 2013). Inman and Marlow (2004) suggest that new teachers benefit from opportunities to interact and collaborate with colleagues who are likeminded in their ideas about teaching and working cooperatively. Considering that the current study consisted of voluntarily participants who prior to the workshop held likeminded positive

attitudes towards inclusive education of students with mental health challenges, perhaps pre-service teachers would benefit from participating in a workshop similar to the one evaluated in the present research. Thus, future research may want to replicate the results of the present study using a population of B.Ed. students.

The findings in the current study revealed that teachers' knowledge, perceived skills, attitudes, and awareness towards identifying, responding to, and supporting the learning of students with anxiety and/or depression, as well as their efficacy towards engaging learning improved following participation in a mental health workshop. Despite these results it is difficult to determine if these improvements would be maintained in the long-term, because only 24 of the 95 participants involved in the study completed the three-month follow-up questionnaire. Furthermore, five of eleven participants left comments on their immediate post-test questionnaire indicating that although they found the workshop helpful they wished it was longer. For example, one participant wrote "workshops are excellent- need regular opportunities to be informed". This may speak to research which has found that isolated or "one-off" workshops are inadequate for creating long-lasting sustainable change in teachers' knowledge and competency to appropriately respond to the mental health needs of their students (Whitley et al., 2013). In a provincial school-based mental health report by Davies and colleagues (2009), the researchers recognized that student mental health issues are complex; thus, teachers need substantial information and recurrent training in order to have an adequate amount of mental health literacy and competency. In other words, in order to foster meaningful long-term change within the schools in terms of how student mental health issues are addressed and responded to, all school personnel require repetitive training and professional support in this area (Weston et al., 2008). Consequently, school boards should continually assess teachers professional



development needs and provide appropriate training. In terms of the school board involved in the current study, based on five participants' comments and that only 24 of the 95 participants completed the three-month follow-up questionnaire, and considering previous research noting the need for repeated training (Davies et al., 2009; Weston et al., 2008; Whitley et al., 2013), additional mental health professional development would be warranted. Future research should continue to investigate the short-term and long-term effects of professional development on teachers' knowledge, competency, and self-efficacy regarding the complex issues of student mental health.

### **Implications for Practice**

Previous research has explored teachers' actual abilities to recognize students with mental health symptoms following training (Kirchner et al., 2000; Langeveld et al., 2011), and it was found that training increased teachers' ability to successfully identify students suffering from mental health disturbances. In addition, the collective findings from the present study and previous research (Jorm et al., 2010; Kirchner et al., 2000; Langeveld et al., 2011) indicated that professional development improved teachers' knowledge, skills, abilities, self-efficacy, and attitudes towards identifying and supporting students with mental health challenges. Moreover, Langeveld and colleagues (2011), proposed a possible causal relationship between participation in mental health literacy trainings and improved ability to accurately recognize students with mental health issues, because training increased teachers' knowledge and awareness of mental health challenges. These findings and the current study may provide support for the Theory of Planned Behaviour, suggesting that knowledge, perceived abilities, self-efficacy, and positive attitudes interact to potentially influence behavioural intentions, which ultimately can lead to action (Ajzen, 1991; Mahat, 2008). Unfortunately, it can only be suspected that the significant

improvements in teachers' knowledge, perceived skills and abilities, and self-efficacy found in the current study led to an increase in teachers' behaviours towards identifying and supporting students struggling with mental health disturbances. The Theory of Planned Behaviour may be a useful theory for future studies to explore the process and effectiveness of mental health training on teachers' abilities to recognize and support students suffering from mental health challenges.

Research in the area of evaluating mental health literacy training and on improving teachers' knowledge, self-efficacy, skills, abilities, and attitudes was limited, especially in regards to designing and evaluating workshops utilizing theory and evidence-based approaches and measures (Whitley et al., 2013). Investigating mental health professional development is important because when teachers are adequately prepared they may be able to positively influence students' mental health and development (Weston, et al., 2008). Thus, the findings and information presented in the current study should encourage researchers to continue investigating training methods to improve teachers' knowledge, skills, abilities, self-efficacy, and attitudes towards recognizing and supporting students with mental health challenges. In particular, the design and evaluation of professional development trainings should be based on evidence and theory-based approaches (Kelly et al., 2007; Noar, 2006).

### **Limitations**

A limited number of studies have evaluated mental health training for teachers (Whitley et al., 2013), thus the current study added to this area of research, and found that participation in a professional development workshop positively influenced teachers knowledge, perceived skills and abilities, and self-efficacy identifying and supporting the learning of students with anxiety and/or depression. Despite the importance of the findings, a number of limitations in the current study need to be addressed, such as the relatively small sample size of 24 participants at the

three-month follow-up. In the current study, the three-month follow-up was in June, which may have been a barrier for teachers to complete the questionnaire since June can be a busy month for teachers as it marks the end of the school year. Although all of the scales used in the current study were shown to have strong internal consistency, they were not without limitations. The behavioural subscale of the adapted version of the MATIES used in the present research was found to have an acceptable level of internal consistency reliability, whereas the cognitive and affective attitude components had low to moderate reliability scores. Furthermore, the generalizability of the workshop content to school boards in other regions would be difficult to determine because the workshop in the present research was specifically designed by the school board to meet the needs of their teachers. Thus, the results of the present study cannot be generalized to other populations of teachers because the sample of participants was limited to only one school board in south western Ontario.

Additional factors that may have influenced the results of this study may include: history effects between the workshop and three-month follow-up measures, and a response bias due to the self-report design of the questionnaire. In an attempt to reduce the threat of response bias, the researchers emphasized that participation in the current study was anonymous and that no one at the school board would know whether or not they participated. Moreover, there was no comparison group in the current research, as all workshop attendees received the same measures and training, and without a comparison group causality cannot be determined. However, it is still plausible the T2 improvements found in the current study were related to participation in the mental health training, because the pre-test and immediate post-test (T1 and T2) design may have decreased the chance of history effects or other variables influencing participants' responses. Although the present study assessed teachers' perceived skills and abilities towards

identifying and supporting students with anxiety and depression, their actual or intended behaviours were not measured; thus, causal conclusions about teachers' behaviours cannot be reached. A method of investigating teachers' behaviours would be to compare the number of students with mental health problems being identified and supported, prior to and following a mental health workshop for teachers. This would offer a real world insight into whether or not mental health training for teachers helps students. Consequently, future research assessing the effectiveness of professional development on teachers' knowledge, self-efficacy, and attitudes, should also investigate teachers' reported behaviours of sharing and/or applying their acquired knowledge following training. The influence of teachers sharing and applying their acquired knowledge as it impacts their colleagues and students in terms of mental health knowledge, attitudes, and whether or not more students receive the educational support and treatment they require also needs to be researched.

### **Conclusion**

The results of the current study revealed that following a two-hour workshop teachers' knowledge, perceived abilities and skills, attitudes and awareness, and efficacy towards educating, identifying, and supporting students with anxiety and/or depression improved, while their attitudes remained positive. Consequently, the results of the current study lend support for the justification and value of providing teachers with mental health professional development. Perhaps the findings of the current study indicated that the impact of a workshop encouraged teachers to adopt and apply new classroom strategies and interventions to meet the needs of students with mental health difficulties.

The current study speaks to the importance of mental health training for teachers in order to improve their knowledge, skills, perceived abilities, and self-efficacy towards recognizing,

responding to, and supporting the learning of students with mental health challenges. These results are significant because research in the area of developing teachers mental health competencies was limited (Weston et al., 2008; Whitley et al., 2013), even though it has become evident that mental health problems in students are a serious issue in schools (Froese-Germain & Riel, 2012). Investigating means of developing teachers' mental health literacy and competencies is important because teachers already feel overwhelmed and stressed by the pressures of their job (Weston et al., 2008), and they report feeling ill-equipped to address the mental health needs of their students (Davies et al., 2009). The goal of mental health training is to not add to this stress by expecting teachers to be mental health experts (Trudgen & Lawn, 2011); but, there are too many students struggling with mental health challenges to be ignored (Weston et al., 2008). Since teachers hold an important role in the lives of children they are in a valuable position to influence the quality of life and social, emotional, cognitive, and mental health development for all of their students. Therefore, a goal of teacher mental health training is for mental health promotion, prevention and intervention. In order for school-based mental health promotion, prevention, and intervention to be successful teachers must have professional development opportunities so they can learn how to recognise and respond to students with mental health challenges (Kelly et al., 2008). This would hopefully decrease the large gap of only 1 in 6 children and youth with mental health problems receiving treatment (Canadian Psychiatric Association, 2012). Hence, by addressing teachers' requests for mental health professional development their level of stress and feelings of incompetency may be alleviated. This could positively impact the quality of life, learning, and development of students struggling with mental health problems, because through professional development, teachers are likely provided with the knowledge, skills, and

professional supports needed for them to successfully respond to the mental health needs of their students.

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Appendix A

**Western  Education**  
**WESTERN UNIVERSITY**  
**FACULTY OF EDUCATION**  
**USE OF HUMAN SUBJECTS - ETHICS APPROVAL NOTICE**

Review Number: 1210-3  
 Principal Investigator: Susan Rodger  
 Student Name:  
     Title: Evaluating Pre and Post – Educator Perspectives on a Series of Mental Health Workshops  
     Expiry Date: April 30, 2014  
     Type: Faculty  
 Ethics Approval Date: March 8, 2013.  
 Revision #: 3  
 Documents Reviewed & Letter of Information & Consent for Workshop 3, Script Workshop 3, Pre and Post  
 Approved: Questionnaires Workshop 3

This is to notify you that the Faculty of Education Sub-Research Ethics Board (REB), which operates under the authority of the Western University Research Ethics Board for Non-Medical Research Involving Human Subjects, according to the Tri-Council Policy Statement and the applicable laws and regulations of Ontario has granted approval to the above named research study on the date noted above. The approval shall remain valid until the expiry date noted above assuming timely and acceptable responses to the REB's periodic requests for surveillance and monitoring information.

During the course of the research, no deviations from, or changes to, the study or information/consent documents may be initiated without prior written approval from the REB, except for minor administrative aspects. Participants must receive a copy of the signed information/consent documentation. Investigators must promptly report to the Chair of the Faculty Sub-REB any adverse or unexpected experiences or events that are both serious and unexpected, and any new information which may adversely affect the safety of the subjects or the conduct of the study. In the event that any changes require a change in the information/consent documentation and/or recruitment advertisement, newly revised documents must be submitted to the Sub-REB for approval.



Dr. Alan Edmunds (Chair)

**2012-2013 Faculty of Education Sub-Research Ethics Board**

- Dr. Alan Edmunds** Faculty of Education (Chair)
- Dr. John Barnett** Faculty of Education
- Dr. Wayne Martino** Faculty of Education
- Dr. George Gadanidis** Faculty of Education
- Dr. Elizabeth Nowicki** Faculty of Education
- Dr. Julie Byrd Clark** Faculty of Education
- Dr. Kari Veblen** Faculty of Music
- Dr. Jason Brown** Faculty of Education
- Dr. Susan Rodger** Faculty of Education, Associate Dean, Research (ex officio)
- Dr. Ruth Wright** Faculty of Music, Western Non-Medical Research Ethics Board (ex officio)
- Dr. Kevin Watson** Faculty of Music, Western Non-Medical Research Ethics Board (ex officio)

The Faculty of Education    Faculty of Education Building  
 1137 Western Rd.    [edu-ethics@uwo.ca](mailto:edu-ethics@uwo.ca)  
 London, ON N6G 1G7    519-661-2111, ext.88561    FAX 519-661-3095

Appendix B

**Mental Health Series –The Impact of Anxiety and Depression on Learning Pre-Evaluation**

Please answer the following questions about yourself:

Male  Female  Other

➤ Role (**check one**):

Teacher  Educational Assistant  School Administrator  Guidance Staff  Learning Support Teacher  Student Success Teacher  Support Staff

**(please circle one):** Psychology Social Work/SSW TOSA SL/P Learning Coordinator  
 Other \_\_\_\_\_

➤ Years of Service in Education: \_\_\_\_\_

➤ What type of school do you work in? (**check one**):  Elementary School  
 Secondary School  Both

➤ Have you ever taken a class or workshop before on this topic?  Yes  No

If yes, where did you do this learning?

**(please check all that apply)**

- in my formal post-secondary education program
- in a professional development (in-service) workshop
- in a continuing education/professional certification course
- I have read and learned about this on my own

*This is the third workshop in the series. Please tell us what your plans are, if any, to attend other sessions:*

Workshop Topic	Have you attended, registered or plan to register for another session? (check box)
Engaging Student Learning (Oct 2012)	<input type="checkbox"/> Y (attended) <input type="checkbox"/> N
Compassion Fatigue (Nov 2012)	<input type="checkbox"/> Y (attended) <input type="checkbox"/> N
Differentiated Instruction for Mental Health (Apr 2013)	<input type="checkbox"/> Y <input type="checkbox"/> N
Creating Mentally Healthy Environments (May 2013)	<input type="checkbox"/> Y <input type="checkbox"/> N

<b>The Impact of Anxiety and Depression on Learning</b>	
<i>“Where am I right now in terms of...”</i>	
Each item below describes an area of knowledge, skill, ability, or attitude relevant to the impact of anxiety and depression on learning, how to support a student who is anxious or depressed, and what anxiety or depression looks like in the classroom. Please <b>circle</b> the response to the right of each statement according to the scale to the right of this box.	<b>Where I am right now</b>
	1 = No need for development 2 = Little need for development 3 = Some need for development 4 = Substantial need for development 5 = Urgent attention required 6 = Not relevant to my daily work
My knowledge of what puts students at risk for anxiety	1 2 3 4 5 6
My knowledge of what puts students at risk for depression	1 2 3 4 5 6
My ability to recognize the signs and symptoms of anxiety	1 2 3 4 5 6
My ability to recognize the signs and symptoms of depression	1 2 3 4 5 6
My awareness of the impact of anxiety on learning	1 2 3 4 5 6
My awareness of the impact of depression on learning	1 2 3 4 5 6
My knowledge of classroom strategies for helping students with anxiety	1 2 3 4 5 6
My knowledge of classroom strategies for helping students with depression	1 2 3 4 5 6
My understanding of the role I play at my school to develop a support plan for students with mental health needs	1 2 3 4 5 6
My knowledge of specific strategies to better assist students with learning	1 2 3 4 5 6
My knowledge of how to access internal resources and supports for students with mental health issues	1 2 3 4 5 6
My knowledge of how to access community resources and supports for students with mental health issues	1 2 3 4 5 6
My knowledge of how to access crisis support services for mental health issues	1 2 3 4 5 6
My knowledge about general mental health diagnoses common among children and youth	1 2 3 4 5 6
My ability to provide information to students and families about mental health concerns	1 2 3 4 5 6
My ability to create a learning environment where all students can succeed	1 2 3 4 5 6
My understanding of how mental health issues affect the learning process	1 2 3 4 5 6
My understanding of how mental health issues impact teaching practices	1 2 3 4 5 6

*Each item below describes an area of efficacy in engaging student learning. Please answer each question as honestly as possible using the 'Level of Agreement' scale below and **circle** the most appropriate answer to the right of each statement.*

1-----2-----3-----4-----5-----6-----7-----8-----9

Nothing                      Very Little                      Some Influence                      Quite a Bit                      A Great Deal

To what extent can you use a variety of assessment strategies?	1	2	3	4	5	6	7	8	9
To what extent can you provide an alternative explanation or example when students are confused?	1	2	3	4	5	6	7	8	9
To what extent can you craft good questions for your students?	1	2	3	4	5	6	7	8	9
How well can you implement alternative strategies for working with students?	1	2	3	4	5	6	7	8	9
How much can you do to control disruptive behaviour in the classroom?	1	2	3	4	5	6	7	8	9
How much can you do to get children to follow classroom rules?	1	2	3	4	5	6	7	8	9
How much can you do to calm a student who is disruptive or noisy?	1	2	3	4	5	6	7	8	9
How well can you establish a classroom management system with students?	1	2	3	4	5	6	7	8	9
How much can you do to get students to believe they can do well in schoolwork?	1	2	3	4	5	6	7	8	9
How much can you do to help your students' value learning?	1	2	3	4	5	6	7	8	9
How much can you do to motivate students who show low interest in schoolwork?	1	2	3	4	5	6	7	8	9
How much can you assist families in helping their children do well in school?	1	2	3	4	5	6	7	8	9

*Each item below describes an attitude, belief, perception, feeling, emotion, or intention toward inclusive education of students with anxiety and/or depression (i.e., mental health challenge). Please answer each question using the 'Level of Agreement' scale below and **circle** the most appropriate answer to the right of each statement.*

1-----2-----3-----4-----5-----6  
 Strongly      Somewhat      Disagree      Agree      Somewhat      Strongly  
 Disagree      Disagree                Agree      Agree      Agree

I believe that an inclusive school is one that permits academic progression of all students regardless of their ability.	1	2	3	4	5	6
I believe that students with a mental health challenge should be taught in special education schools.	1	2	3	4	5	6
I believe that inclusion facilitates socially appropriate behaviour amongst all students.	1	2	3	4	5	6
I believe that any student can learn in the regular curriculum of the school if the curriculum is adapted to meet their individual needs.	1	2	3	4	5	6
I believe that students with a mental health challenge should be segregated because it is too expensive to modify the physical environment of the school.	1	2	3	4	5	6
I believe that students with a mental health challenge should be in special education schools so that they do not experience rejection in the regular school.	1	2	3	4	5	6
I get frustrated when I have difficulty communicating with students with a mental health challenge.	1	2	3	4	5	6
I get upset when students with a mental health challenge cannot keep up with the day-to-day curriculum in my classroom.	1	2	3	4	5	6
I am pleased when I am able to understand students with a mental health challenge.	1	2	3	4	5	6
I am uncomfortable including students with a mental health challenge in a regular classroom with other students without a mental illness.	1	2	3	4	5	6
I am content that students with a mental health challenge are included in the regular classroom, regardless of the severity of the mental illness.	1	2	3	4	5	6
I am happy to adapt the curriculum to meet the individual needs of all students.	1	2	3	4	5	6
I am willing to encourage students with a mental health challenge to participate in all social activities in the regular classroom.	1	2	3	4	5	6
I am reluctant to adapt the curriculum to meet the individual needs of all students regardless of their ability.	1	2	3	4	5	6
I am willing to physically include students with a severe mental health challenges in the regular classroom with the necessary support.	1	2	3	4	5	6
I am reluctant to modify the physical environment to include students with a mental health challenge in the regular classroom.	1	2	3	4	5	6
I am willing to adapt my communication techniques to ensure that all students with a mental health challenge can be successfully included in the regular classroom.	1	2	3	4	5	6
I am reluctant to adapt the assessment of individual students in order for inclusive education to take place.	1	2	3	4	5	6

THANK-YOU

### Mental Health Series – The Impact of Anxiety and Depression on Learning, Post-Evaluation

Thank-you for participating in this workshop. We ask at this time that you take a moment to reflect on your experience here and re-evaluate the impacts that this workshop has had for you personally, and for your line of work.

<b>The Impact of Anxiety and Depression on Learning</b>	
<i>“Where am I right now in terms of...”</i>	
<p>Each item below describes an area of knowledge, skill, ability, or attitude relevant to the impact of anxiety and depression on learning, how to support a student who is anxious or depression, and what does anxiety or depression look like in the classroom. Please <b>circle</b> the response to the right of each statement according to the scale to the right of this box.</p>	<p><b>Where I am right now</b>                      1 = No need for development                      2 = Little need for development                      3 = Some need for development                      4 = Substantial need for development                      5 = Urgent attention required                      6 = Not relevant to my daily work</p>
My knowledge of what puts students at risk for anxiety	1   2   3   4   5   6
My knowledge of what puts students at risk for depression	1   2   3   4   5   6
My ability to recognize the signs and symptoms of anxiety	1   2   3   4   5   6
My ability to recognize the signs and symptoms of depression	1   2   3   4   5   6
My awareness of the impact of anxiety on learning	1   2   3   4   5   6
My awareness of the impact of depression on learning	1   2   3   4   5   6
My knowledge of classroom strategies for helping students with anxiety	1   2   3   4   5   6
My knowledge of classroom strategies for helping students with depression	1   2   3   4   5   6
My understanding of the role I play at my school to develop a support plan for students with mental health needs	1   2   3   4   5   6
My knowledge of specific strategies to better assist students with learning	1   2   3   4   5   6
My knowledge of how to access internal resources and supports for students with mental health issues	1   2   3   4   5   6
My knowledge of how to access community resources and supports for students with mental health issues	1   2   3   4   5   6
My knowledge of how to access crisis support services for mental health issues	1   2   3   4   5   6
My knowledge about general mental health diagnoses common among children and youth	1   2   3   4   5   6
My ability to provide information to students and families about mental health concerns	1   2   3   4   5   6

My ability to create a learning environment where all students can succeed	1	2	3	4	5	6
My understanding of how mental health issues affect the learning process	1	2	3	4	5	6
My understanding of how mental health issues impact teaching practices	1	2	3	4	5	6

**Over....**

Are there any additional questions or comments that you have at this time?

THANK-YOU

## Appendix C

**LETTER OF INFORMATION***Evaluating Pre and Post - Educator Perspectives on  
a Series of Mental Health Workshops**(#3 -Impact of Anxiety and Depression on Learning Workshop)***Introduction**

Our names are Michelle Gilpin (PhD., C. Psych.), Susan Rodger (PhD., C. Psych.), Jacqueline Specht (PhD.), Laurel Pickel (M. Ed.), Jessica Woods (B.A.), and Adam Koenig (B.A.). We are a research team from the school board and the Faculty of Education at Western University, and are currently conducting research on the effects of professional development and invite you to participate in this study.

**Purpose of the Study**

The aim of this study is to determine the effectiveness of professional development workshops related to children's mental health and education.

**If you agree to participate**

If you agree to participate in this study you will be first asked to fill out a short pre-workshop evaluation (pink sheet) immediately *before* the workshop begins; it will take approximately 10 minutes to complete. After the workshop has concluded, you will be asked to complete a post-workshop evaluation (blue sheet), which will take approximately 5 minutes to complete. You will also be asked if you are willing to be contacted regarding a 3-month follow-up evaluation. If you agree to do this, we ask you to sign a consent form and provide your contact information so we can send you the follow-up evaluation by fax, email or letter mail; you will be asked to complete this 3-month post-workshop evaluation, which will take approximately 5 minutes, and return it by email, fax or letter mail as you choose. If you choose to return it by letter mail, we will provide a stamped, self-addressed envelope. You are invited to return the pre- and post-evaluations, and the consent form for the 3-month follow up, to the box at the registration desk as you leave the workshop. Participation in the evaluation is voluntary.

**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. All information collected for the study will be kept confidential; only group (aggregate) data will be shared with the school board.



**Risks & Benefits**

There are no known risks to participating in this study. This research will benefit the wider population of teachers and teaching support staff by assessing the effectiveness of training in children's mental health and by providing the opportunity to participate and share feedback on professional development needs with researchers. The anticipated benefit for school staff includes improved education to aid in recognizing and responding to staff and student mental health needs.

**Voluntary Participation**

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your employment status.

**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, The University of Western Ontario at 519-661-3036 or [ethics@uwo.ca](mailto:ethics@uwo.ca). If you have any questions about this study, please contact Dr. Susan Rodger (Phone: \_\_\_ or Email \_\_\_:). This letter is yours to keep for future reference.

Appendix D



**Evaluating Pre and Post - Educator Perspectives on a Series of Mental Health Workshops**

Michelle Gilpin, Jacqueline Specht, Jessica Woods, Adam Koenig, Laurel Pickel, and Susan Rodger (UWO)

*(#3 -Impact of Anxiety and Depression on Learning Workshop)*

**CONSENT FORM**

I \_\_\_\_\_ give permission to the researchers above to

*Participant Name (please print)*

contact me in approximately 3 months to ask for my feedback on the long-term usefulness of this professional development session.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Email: \_\_\_\_\_

Telephone: \_\_\_\_\_

## Appendix E

SCRIPT to be read by researcher at the beginning of the scheduled workshop:

Hello and welcome. My name is (*researcher*) and I am with the research team from Western University. We are doing a study that examines what teachers need in terms of professional development on the topic of children's mental health, and are interested to know if you feel this workshop is effective in providing that. This will help us better respond to your personal, professional and student needs in future sessions of this nature. There are three parts to the study – all are voluntary, two of them would be completed tonight and the third, 3 months from now if you agree to be contacted.

Tonight as you came in, we gave you an envelope. Inside the envelope are two surveys, a Letter of Information about the study, and a Written Consent form. The first survey is on pink-coloured paper, is two-sided, and meant to be completed before the workshop begins. It should take 10 minutes or less. Once you have completed the survey, please put it back in the envelope. The second survey is on blue paper and is meant to be completed at the end of the workshop, before you leave. It should take about 5 minutes. Once you have completed the second survey, please put it back in the envelope. There is a Letter of Information in the envelope, which gives you more detailed information about the study and contact names and numbers of the researchers and is yours to keep. There is a Written Consent form which you can fill out if you would like to be contacted in 3 months to complete another survey, which would take about 5 minutes and will ask about any long-term effects of your participation in this workshop. Once you have completed the Written Consent, please put it back in the envelope. Both surveys and the Written Consent have the same number on them, so we can match all the pieces, but only the researchers will have the names of people who agree to be contacted. Other than those names, which we will keep confidential, no identifying information is being collected, so anonymity will be preserved. We can send that follow-up survey to you by email or by letter mail, and you can return it by fax, email, or letter mail, whatever you choose. You don't have to complete the Written Consent in order to fill out today's surveys.

Participation in the study is voluntary and no one from will know if you decided to participate or not. Please drop off your envelopes in the box on the registration desk on your way out.

If you do agree to participate, you can refuse to answer any question, and you can withdraw from the study at any time without any negative repercussions. Data will be analysed and group results will be shared with your Mental Health Strategic Planning Team.

If you are not interested in participating tonight, please use the next 10 minutes to read through the materials on your table regarding Children's mental health, help yourself to the refreshments at the back, and the workshop facilitators will be getting started shortly. Any questions or comments? (Address these at this point).

If there are no more questions, please read the information letter and consider the consent. If you chose to participate, take 10 minutes now to fill out the pre-workshop evaluation on the pink sheet. We will remind you about the post-workshop evaluation at the end of the session, Thank-you!

## Appendix F

## Three-month Follow-up email

The consenting participants will be instructed to complete the survey via email rather than pencil and paper format as was done at the workshop. The email that will be sent is as follows:

“Subject: Mental Health Series: Impact of Anxiety and Depression on Learning Follow-Up Survey

Dear XXXXXXXXXXXX,

My name is Jessica Woods and I am a researcher from the University of Western Ontario who is part of the research team working with on their Mental Health Workshop Series.

3 months ago you attended a workshop entitled “The Impact of Anxiety and Depression on Learning” and consented to being contacted to complete a follow-up survey.

If you agree to continue your participation, we ask that you download the survey attached to this email and please complete and return at your earliest convenience. Please be sure to “save as” your completed survey and email it back to the researcher as an attachment.

The survey will take 10 to 15 minutes to complete. As before, you may choose to leave some questions blank or decline to complete the survey.

Again, no one from will know if you participated or not and any identifying information is kept strictly confidential.

Thank you very much.

If we have not received a survey from you within two weeks we will send you a friendly reminder at that time via email.

Sincerely,

Jessica Woods and The Western Research Team.”

## 2 week reminder email

If participants have not responded in 2 weeks, they will be re-contacted via email with the following paragraph:

“Subject: Reminder email for Mental Health Series: Impact of Anxiety and Depression on Learning Follow-Up Survey

Dear XXXXXXXXXXXX,

This is a reminder email asking you to complete the follow-up survey for the workshop you attended in March entitled “The Impact of Anxiety and Depression on Learning.”

We ask that you download the survey attached to this email and please complete and return it at your earliest convenience. Please be sure to “save as” your completed survey and email it back to the researcher as an attachment

The survey will take 10 to 15 minutes to complete. As before, you may choose to leave some questions blank or decline to complete the survey.

Again, no one from will know if you participated or not and any identifying information is kept strictly confidential.

Thank you very much.

Sincerely,

Jessica Woods and The Western Research Team.”

Appendix G  
**Curriculum Vitae**

**Name:** Jessica Woods

**Post-secondary Education:** Western University, Althouse College  
London, Ontario, Canada  
2012- In progress  
M.A. Counselling Psychology

The University of Western Ontario, Brescia University College  
London, Ontario, Canada.  
2004 – 2008  
B.A. Honors Specialization in Psychology

**Relevant Experience:** Trauma Stabilization Group Co-facilitator, Volunteer  
Traumatic Stress Services, London Health Science Centre  
November 2013 - In progress.

Research Assistant  
Western University  
May 2013 – August 2013

Wait-list Clinic Volunteer  
The Wait-list Clinic, Canadian Mental Health Association  
September 2012 - June 2013

Guest Lecturer; research methods and CBT & innovative therapies  
Undergraduate Intro to Clinical Psychology  
Brescia University College, Western University  
September 24, 2013 & November 19, 2013

Emergency Shelter Primary Counsellor, Full-time  
Violence Against Women, Services Elgin County (VAWSEC)  
St. Thomas, Ontario, Canada  
February 2012 – August 2012

Men's Group Co-Facilitator, volunteer  
Changing Ways, London  
Sept 2011 – February 2012

Support Worker, Mental Health, Full-time  
Crest Support Services  
Lucan, Ontario, Canada  
August 2011 – February 2012

- Professional Development/ Certifications:** Mental Health Series  
TVSDB Mental Health Strategic Planning Group
- Creating mentally healthy environments, May 15, 2013
  - Differentiated instruction for mental health, April 24, 2013
  - Impact of anxiety and depression on learning, March 20, 2013
  - Compassion fatigue and staff burn-out, November 21, 2012
  - Engaging student learning, October 24, 2012
- The Dual Diagnosis Resource Manual for Direct Support Professionals, December 1, 2011
- Applied Behaviour Analysis: 8 week advanced training course, September 19, 2011 - November 14, 2011
- O CAN: Ontario Common Assessment of Need, November 2, 2011 – November 3, 2011
- Standard First Aid with CPR level C, September 2011
- Nonviolent Crisis Intervention, August 10, 2011
- Intro to Somatic Experiencing workshop: a naturalistic approach in healing trauma, April 7, 2011
- ASIST: Applied Suicide Intervention Skills Training, April 2011
- Professionalism in Human Services, February 24, 2011
- Conferences/ Presentations:** Symposium:  
Rodger, S., Killip, S., Venesoen, P., Gilpin, M., Pickel, L., Koenig., & Christiansen, J. (June, 2013). Teachers On The Front Lines of Mental Health. Symposium presented at the annual Canadian Psychological Association, Quebec City, Quebec.
- Poster Presentation:  
Christiansen, J. & Janes, L. (May, 2008). The Effect of Implicit Beliefs on Performance and Persistence. Poster presented at the annual Ontario Undergraduate Thesis Conference, Brock University, Ontario.
- Awards/Scholarships:** Western Graduate Research Scholarship, Western University 2012-2014
- Dean's Honor List, Brescia University College 2005 – 2008