

Running head: MEANING IN CHILDREN AS A MENTAL HEALTH PREDICTOR

**Meaning as an Early Determinant of Childhood Mental Health: Potential Influence
of Religious Attendance**

Elizabeth St. John

Saint Paul University

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Abstract

A sense of meaning in life is a known predictor of mental health and other positive outcomes in adults and adolescents. This concept has yet to be explored in young children, potentially due to the lack of meaning measures for children. This study assessed the validity and reliability of the video-based, self-report Interactive Symptom Assessment (I.S.A.) and the Child Identity and Purpose Questionnaire (Ch.I.P.) to measure well-being and meaning respectively. Furthermore, this study examined the relationship between meaning and mental health as well as what may make religious attendance meaningful for children. The Ch.I.P includes the four components of meaning relevant for children: Agency, self-esteem, hope, and openness to experience. The online self-report questionnaires were administered to 62 children ages 6 to 12 in schools and religious communities. Correlational analyses supported the reliability and convergent validity of the I.S.A. and the Ch.I.P. Children's self-reported meaning was positively associated with internalizing and externalizing well-being ($r = .648, p < .01$). Children also reported qualities of worship attendance that they find meaningful. Findings point to the importance of having programs to increase meaning in children in places they frequent, as well as provide a framework for ways to make existing community organizations, such as places of worship, more meaningful for children.

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Meaning as an Early Determinant of Childhood Mental Health & Behavioural Well-Being

Up to 20% of children experience mental illness (Belfer, 2008; National Research Council & Institute of Medicine, 2009; Statistics Canada, 1983), while only one in six children who need mental health treatment will receive such services (Davidson & Manion, 1995). Therefore, the Mental Health Commission of Canada (M.H.C.C., 2012) recommends prevention approaches in places that children frequent before symptoms of mental illness emerge. Prevention of mental illnesses—such as anxiety, depression, and behavioural concerns—is estimated to save \$247 billion per year (National Research Council & Institute of Medicine, 2009). For communities interested in targeted prevention, there must be a means of predicting early risk. In adults and youth, a sense of meaning predicts fewer suicidal thoughts, fewer risk behaviours, and positive mental health (Armstrong, & Manion, 2013; Frankl, 1984; Ho et al., 2010; Steger, Mann, Michels, & Cooper, 2009). This concept has yet to be explored in children. Furthermore, meaning also has yet to be examined as a potential mediator between religious attendance and well-being, a known protective factor for mental illness (Hill & Pargament, 2003).

What is Meaning

“Meaning” is the spiritual aspect of a person (Frankl, 1986; Wong, 1998). Although spirituality has many definitions in the literature (Koenig, 2012; Mattis, 2000; Tanyi, 2002), the current study considers spirituality to be intrinsically linked with meaning (Frankl, 1986; Wong, 1998). Steger (2009) described meaning as “the extent to which people comprehend, make sense of, or see significance in their lives, accompanied by the degree to which they perceive themselves to have a purpose, mission, or overarching aim in life” (p. 682). The components that

contribute to meaning are different for adults and children (Armstrong, 2016; Baumeister & Wilson, 1996; Patterson, 1977; Steger, & Kashdan, 2013; Stoddard, Henly, Sieving, & Bolland, 2011; VanderVen, 2008; Yael, 2014). The aspects that contribute to meaning in adults are a sense of coherence in life, purposefulness, and a life judged as being significant (Frankl, 1986). Components of meaning in children are: Sense of agency (control over some aspects in life, such as one's thoughts, feelings, and behaviours), hope for the future, self-esteem, and openness to new experiences (Armstrong, 2015; Baumeister & Wilson, 1996; Patterson, 1977; Stoddard, Henly, Sieving, & Bolland, 2011; VanderVen, 2008; Yael, 2014). As the concept of meaning is different for adults and children, it will be important to examine whether a sense of meaning predicts mental health and positive behavioural indicators in children, as in adults. Although the experience of meaning may differ between age groups, it is agreed that it is a crucial aspect of life (Frankl, 1984).

Frankl (1984) dictates that each person has a will to meaning—the drive to find meaning in one's life—and a failure to actualize this experience results in psychological dysfunction. A sense of meaning in one's life has been shown to be imperative for psychological well-being (Frankl, 1984; Garcia-Alandete, 2015; Steger, & Kashdan, 2013). Research has found correlations between meaning in life and psychological functioning. A low sense of perceived meaning in life has been linked to depressive symptoms (Kleftaras & Psarra, 2012), anxiety symptoms (Steger, Mann, Michels, & Cooper, 2009), greater need for therapy (Battista & Almond, 1973) and increased suicidal ideation (Armstrong, & Manion, 2013). Perceived high meaning in life has been correlated with work satisfaction (Bonebright, Clay, & Ankenmann, 2000), self-acceptance (Garcia-Alandete, 2015), positive relationships (Garcia-Alandete, 2015), and a sense of environmental mastery (Garcia-Alandete, 2015). A Chinese study of 12 to 18 year

old adolescents found that meaning scores on the Chinese Adolescents' Life Satisfaction Scale (CALSS) correlated with life satisfaction and also inversely predicted psychosocial problems (Ho et al., 2010). The components of meaning measured, however, were the factors that were relevant for adults. In children ages 9 to 12 meaning was positively correlated with pro-social behaviour and positive emotions and negatively correlated with conduct problems, hyperactivity, peer problems, and negative emotions (Steger, & Kashdan, 2013). As noted, for children, agency, hope, self-esteem, and openness may represent meaning (Baumeister & Wilson, 1996; Patterson, 1977; Stoddard, et al., 2011; VanderVen, 2008).

Components of Meaning in Childhood: Agency, Self-Esteem, Hope, & Openness

Agency

A sense of personal agency is the “subjective authorship over one’s actions” (Van Elk, Rutjens & Van Der Pligt, 2015) and is “strongly connected to the individual’s sense of meaning and purpose” (Adler, 2012). Research has found a strong association between mental health well-being and agency (Adler, 2012; Helgeson, 1994; McAdams et al, 1996; Woike & Polo, 2001). In Frankl’s (1984) Logotherapy—a meaning-centred theoretical framework— “agency” is represented by the concepts of responsibility meaning-oriented actions, and choosing one’s attitude under any circumstance: Change is possible when people believe that they are capable of change. The association between agency and well-being has been found in adults (Adler, 2012) and youth (Han, Nicholas, Aimer, Gray, 2015). A mixed-methods, New Zealand study of 10 youths saw an increase in sense of agency, as well as mental health, after participating in a 7-month leadership program designed to help youths manage pressure (Han et al., 2015). The connection between agency and mental health has been found across the lifespan. One study for participants ages 18 to over 75 years found that personal agency was positively correlated with

interpersonal agency, mastery, and psychological well-being across all age groups (Smith et al., 2000). These results have been found longitudinally as well (Gallagher, 2011; Williams & Merten, 2014). The connection between agency and general mental well-being has been documented in most age groups, but has yet to be fully explored with children.

Agency has been shown to be positively connected to specific mental illnesses as well as prosocial behaviours (Schermerhorn, 2005). Depression in Western cultures is experienced by 25% of adolescence ages 15 to 18 (Hammen & Rudolph, 2003). Agency has been found to mediate the relationship between perfectionism and depression in university students (Mathew, Dunning, Coats, & Whelan, 2014). One study of 232 children (M= 5.9 years) with parents in marital discord found that children who engaged in agentic behaviour tend to also engage in prosocial behaviour (Schermerhorn, 2005). Agency has been shown to be a protective factor against forms of mental illness (Mathew et al., 2014; Adler, 2012). A factor that is highly associated with agency is hope; Snyder (2000) considers agency as the willpower of hope.

Hope

Hope is emerging as an instrumental human strength that is associated with a range of positive outcomes. Snyder (2002) defines hope as “the perceived capability to derive pathways to desired goals, and motivate oneself via agency thinking to use those pathways” (p.249). In Logotherapy or meaning-centred theory, a sense of hope is intrinsic: A person who has a “why” to live can endure almost any “how” (Frankl, 1984). Indeed, Snyder (2002) found that hope is positively correlated with positive well-being, even under challenging circumstances. Higher levels of hope correlated with lower levels of depression and anxiety (Arnau, Rosen, Finch, Rhudy & Fortunato, 2007; Wong & Lim, 2009). In addition, higher levels of hope were positively correlated with optimism and life satisfaction in adolescents (Wong & Lim, 2009) and

self-efficacy in adults (O'Sullivan, 2011). In participants with mental illness, higher levels of self-reported hope were related to fewer reported symptoms (Waynor, Gao, Dolce, Haytas & Reilly, 2012). In contrast, hopelessness was related to completed suicide (Beck, Brown, Berchick, Stewart, & Steer, 1990; Kamath, Janardhan, & Kandavel, 2007), self-harm, and suicidal ideation (Grewal-Sandhu, 2009; Taliaferro et al., 2012). A study of children ages 6 to 13 found that hopelessness was positively associated with depression, lower level of social skills, and lower participation in activities, while negatively associated with social behaviour and self-esteem (Kazdin, Rodgers & Colbus, 1986). Hope has been found to play a mediating role in terms of mental health. More specifically, hope has been shown to mediate the effects of childhood maltreatment and adult suicidal behaviour (Grewal-Sandhu, 2009). Additionally, hope has been shown to act as a mediator between psychological distress and life satisfaction (Rustoen, Cooper & Miaskowski, 2010) as well as between neuroticism and life satisfaction (Halama, 2010). The mediating role of hope was also recognised in the relationship between resilience and subjective well-being (Satici, 2016).

External behaviours have also been compared to hope. A study of 20,584 adolescents found that hope, as measured by participants who anticipate early mortality, predicted more risk behaviours and a diagnosis of HIV/AIDS (Borowsky, Ireland & Resnick, 2009). Higher levels of hope are associated with increased social behaviour in young children (Kazdin et al., 1986). Hope has also been shown to predict academic satisfaction in university students (Chang, 1998). One study of children aged 7 to 12, found that hope was predictive of intellectual ability and academic achievement (Kashani, Soltys, Dandoy, Vaidya, & Reid, 1991). Although correlation does not prove causation, hope does appear to have a strong relationship with multiple mental health and well-being indicators. Therefore, hope is a key factor in resiliency across the lifespan

(Grewal-Sandhu, 2009; Satici, 2016). A concept that is related to hope is self-esteem, as self-esteem is seen as a central ingredient in creating and maintaining hope and agency (O'Sullivan, 2011; Snyder, 2002).

Self-Esteem

Self-esteem is defined as a person's total appraisal of his or her value based on how he or she scores in different areas and skills in life (Mann, Hosman, Schaalma & Vries, 2004; Rogers, 1980). From a meaning-centred perspective (Wong, 1998, 2017), the search for meaning involves identity-seeking and, thus, self-esteem. More specifically, a purpose-driven life involves self-awareness and the belief of one's singularity, irreplaceability, and capability to make a unique contribution (Frankl, 1984; Wong, 2017). Such self-esteem is an important factor used in the development of the criteria of mental disorders listed in the Diagnostic and Statistical Manual of Mental Disorders (DSM V; American Psychiatric Association, 2013; Mann et al., 2004); some of which include major depressive disorder, dissociative disorders, anorexia nervosa, narcissistic behaviours (Mann et al., 2004). Self-esteem has been shown to have a negative relationship with depression, hopelessness, and suicide attempts in adults and adolescents (Patton, 1991; Overholser et al., 1995). Further, longitudinal studies have shown that low self-esteem in childhood was predictive of developing depression later in life (Reinherz et al., 1993; Steiger, Allemand, Robins & Fend, 2014). Childhood self-esteem has also been shown to be inversely related to anxiety (Beck et al., 2001), and low self-esteem has been shown to increase the risk of developing an eating disorder in studies of female children and adolescence (Fisher et al., 1994; Vohs et al., 2001). Self-esteem has become a core component of programs aimed at preventing mental health concerns, such as eating disorders (O'Dea & Abraham, 2000; Sacarano et al., 1994). A British study of 7663 children, ages 11 to 15, found that self-esteem was negatively

associated with emotional and behavioural problems (Lereya et al., 2016). When emotional and behavioural issues arise, self-esteem has been shown to mediate their negative effects on well-being (Arslan, 2016). In fact, studies have shown that high self-esteem is a strong predictor of overall well-being and happiness (Furnham & Cheng, 2000; Pyszczynski, Greenberg, Solomon, Arndt & Schimel, 2004; Zimmerman, 2000). High self-esteem has also been linked to experiencing, optimism and motivation (Pyszczynski, et al., 2004)

In addition to positive personal aspects associated with self-esteem, self-esteem has also been examined in terms of external outcomes. An American, longitudinal study of three generation families found high self-esteem to be predictive of relationship satisfaction and job satisfaction (Orth, Robins & Widaman, 2012). By contrast, low self-esteem has been linked to problems in social functioning and increased risk of school dropout in adolescents (Muha, 1991). In adulthood, self-esteem predicted positive career outcomes in a 10-year longitudinal study (e.g. higher salary; Salmela-Aro & Nurmi, 2007). Occupational status and salary were also positively correlated with self-esteem (Judge, Hurst & Simon, 2009; Krammeyer-Mueller, Judge & Picolo, 2008). Many studies have found a connection between self-esteem and interpersonal, work, or school well-being, which demonstrates the importance of self-esteem in fostering resiliency. Those with high self-esteem have also been shown to be high in openness to experiences (Robins, Tracy, Trzeniewski, Potter, & Gosling, 2001). Even in challenging or helpless situations, a person who is open to experiencing new possibilities is one who sees him or herself as capable and as an agent of change, and is hopeful (Frankl, 1984).

Openness to Experience

Openness to experience is known as a trait that contributes to a person's personality as a whole (Costa & McCrae, 1988). This and other traits have been shown to have an impact on

mental health (Ozer, & Benet-Martinez, 2006). Openness to experience is defined as favouring variety, curiosity, and paying attention to one's own and others' positive and negative emotions (Williams, Rau, Cribbet, & Gunn, 2009). For children, openness means openness to experiencing learning, novel situations, own and others' feelings, and to social relationships (Costa & McCrae, 1992; Stoddard et al., 2011). In Logotherapy or meaning-centred theory, meaning is only experienced through openness (Frankl, 1984). Founded in a meaning-centred approach, the body of literature on post-traumatic growth and second wave positive psychology highlights the central importance of openness to experience in order to experience meaning following challenges (Ivtzan, Lomas, Hefferon, & Worth, 2015). In addition to resilience in the face of difficulty, openness to experience has been shown to be positively associated with divergent thinking and creativity (Packer, 2010) and negatively associated with unconscious prejudice (Flynn, 2005). Openness has also been shown to be positively correlated with cognitive ability and accounts independently for academic success (McCrae & Costa, 1987). Studies show that individuals who are high in openness engage in more adaptive coping when stressed (Lee-Baggley, Preece, & DeLongis, 2005). One study found that open individuals made better decisions (Le Pine, Colquitt, & Erez, 2000) and demonstrate positive emotionality (Markon, Krueger, & Watson, 2005). In an lesbian, gay, and bisexual population, openness to experience had a positive impact on identity formation and self-esteem which predicted positive mental health outcomes (Zoeterman, & Wright, 2014). Higher levels of openness to experience can also have a positive impact on physical health. Studies have found it is associated with lower disease progression of HIV and lower mortality in cardiac patients (Ironson, O'Cleirigh, Weiss, Schneiderman, & Costa, 2008). Openness to experience has also been found to positively correlate with voluntarism, compassion, and fiscal responsibility in young adults (Kosek, 1995).

Elevation defined as, feeling positive after witnessing the moral behaviour of others, is predictive of prosocial behaviour and is positively correlated with openness (Landis et al., 2009).

Therefore, overall, there is a strong relationship between positive behavioural outcomes and openness to experience, as such it is an important component of resiliency.

If meaning—measured as sense of agency, hope for the future, self-esteem, and openness to experience—is predictive of well-being in children, or inversely of concerns, as in adults and adolescents, then it may represent an appropriate measure of early risk or resilience for the purpose of prevention. Therefore, one goal of the present research is to assess whether meaning is predictive of well-being or inversely predictive of early risk—including depressive symptoms, behavioural concerns, and anxiety symptoms, three of the most common psychological issues in school-aged children (Merikangas, Nakamura, & Kessler, 2009).

Childhood Mental Illness and Behavioural Disorders: Why Prevention of Mental Illness or Addressing Early Risk is Important

One of the main factors that differentiates mental illness in children compared to adults is the predominant impact their social and psychological environments have on their mental health (Halpern & Figueiras, 2004). Although biology is important, it is not as important as it is in adults (Halpern & Figueiras, 2004). Due to the effects of ‘kindling’, over time it takes smaller and smaller environmental triggers to trigger subsequent episodes (Rutter, 2003). This presents special challenges for treatment as the child matures and environmental factors become less identified with the onset of recurrent symptoms. In addition, the frequency of diagnosed mental illness in children has been increasing. Approximately 1 in 5 children will experience mental illness (Belfer, 2008; National Research Council & Institute of Medicine, 2009; Statistics Canada, 1983). In reference to her daughter, one mother shared, “at age 4 she wanted to ‘do

something to make herself go away forever’,” (“A Parents’ Story,” 2013). 70% of people with mental illness stated that the symptoms began in childhood (Government of Canada, 2006). These rates of childhood mental illness have been shown in other countries as well. The Center’s for Disease Control and Prevention found that children aged 8 to 15 in the US had a 13% of children had a diagnosed mental illness one year prior to the survey. In one study, psychiatric assessments were carried out with a sample of 7, 984 British children aged 5 to 15 years; 8.7% were diagnosed with a psychiatric disorder (Goodman et al., 2000). The most common diagnoses were: Conduct-oppositional disorder (4.8%), any anxiety disorder (3.5%), any attention deficit hyperactivity disorder [ADHD] disorder (2.4%), and any depressive disorder (0.8%; Goodman, Simmons, Gatward, & Meltzer, 2000). A Canadian study of children 6 to 12 years old, who received special education due to behavioural difficulties, found 13.8% of children had generalized anxiety disorder and 8% had experienced a major depressive episode (Déry, Toupin, Pauzé, & Verlaan, 2004). With the majority of mental illnesses beginning in childhood (Government of Canada, 2006), the need to further understand childhood mental illness and early risk indicators has never been so high.

In addition to childhood internalizing concerns, such as depression and anxiety, behavioural concerns have also drastically increased over the past two decades. The amount of children in elementary schools demonstrating behavioural difficulties increased from 0.8% in 1985 to 2.5% in 2000 (Conseil Supérieur de l’Éducation, 2001). A Quebec study of 710 children from Grades 1 to 6 receiving special education due to behavioural difficulties, found the most prevalent behavioural disorders were Attention Deficit Hyperactivity Disorder [ADHD] (74.3%), oppositional defiant disorder [ODD] (52.5%), and conduct disorder [CD] (34.8%; Déry et al., 2004). Over half of this sample presented with ADHD, ODD and CD (Déry et al., 2004), which

denotes the strong comorbidity between a range of behavioural concerns. The comorbidity between internalizing disorders and behavioural concerns has been studied as well. One study found that girls diagnosed with ADHD and ODD were at a higher risk for developing major depressive disorder 5 years later (Biederman et al., 2008). The same study found girls with ADHD and CD were at a higher risk for bipolar disorder at follow up (Biederman et al., 2008). Depression in particular has a strong relationship with other externalizing behaviours and disorders. One study of preschool children found that sadness and fear were associated with comorbid depression and conduct problems by Grade 3 (Essex et al., 2006). Major depression and conduct disorder have also been shown to co-occur in adolescents (Marmorstein & Iacono, 2004). Depressive symptoms in adolescent girls were shown to be at a higher risk for antisocial behaviour and delinquency (Obeidallah & Earls, 1999).

Based on the above statistics, internalizing and externalizing child mental illness effects over 20% of children at some point during their childhood or adolescence (Belfer, 2008; National Research Council & Institute of Medicine, 2009; Statistics Canada, 1983). These children are also likely to develop more than one mental illness as many of them co-occur (Biederman et al., 2008; Essex et al., 2006). Children are struggling world-wide with mental illness and as the research has shown mental illness can cause difficulty in many other areas of life (Crocker & Major, 1989; Drake & Wallach, 2006; Kranke, & Floersch, 2009; Patalay & Fitzsimona, 2016). The frequency of mental illness in children and the disastrous developmental effects it can have on their future demands the need for prevention or early risk intervention.

Mental Illness, Mental Health and Other Areas of Life

Research has found that mental illness negatively impacts other areas of life. In fact, included in the DSM-5 (APA, 2015) criteria of most mental illnesses is the specification that the

concern causes interpersonal, academic, or work problems or problems in other key areas of life functioning. Regarding the research literature, of a sample of chronically mentally ill participants, one third abused alcohol or other drugs (Drake & Wallach, 2006). People with a severe mental illness are also known to experience premature mortality (Walker, McGee, & Druss, 2015). Another study found that the majority of people with severe mental illness did not engage in physical exercise at the level recommended by public health experts (Soundy, Stubbs, Probst, Hemmings, & Vancampfort, 2014). Mental illness can also negatively impact the lives of others. Mental illness is also over represented in the adult homeless and incarcerated populations (Feliner & Abramsky, 2003; James & Glaze, 2006). Homeless school aged and preschool children are also more likely to experience mental health problems than their non-homeless counterparts (Bassuk, Richard, & Tsertsvadze, 2015). Throughout life, mental illness has negative impacts on domains such as economic activity, relationships, and physical health (Copeland, Wolke, Shanahan, & Costello, 2015). In children, mental illness was associated with parent-reported peer problems and greater learning and communication difficulties (Patalay & Fitzsimona, 2016). In a sample of children aged 6 to 18, those with severe mental illnesses were at a higher risk for being overweight (Hasnain et al., 2008).

Mental health and well-being has also shown to correlate with positive life events and characteristics. In a study of children aged 10 to 16, those who were mentally healthy had higher reading skills, school attendance, academic self-perceptions, social support from peers, academic goals, and fewer social problems than their counterparts who experienced symptoms of mental illness (Suldo & Shaffer, 2008). A follow-up of this sample found that mental health was also correlated with longer-term higher grades (Suldo, Thalji, & Ferron, 2011). In children, greater mental health was also associated with greater cognitive functioning (Patalay & Fitzsimona,

2016). In college students, mental health was correlated with gratitude, hope (Eklund, Dowdy, Jones, & Furlong, 2011), and belongingness (Anant, 1967). Mental health is a strong predictor of social and academic functioning, as well as life success. Therefore, it is important to promote mental health in children before these issues emerge. Further supporting the need for prevention, once symptoms of mental illness emerge, the stigma against mental illness has been shown to cause reduced willingness to access mental health services (Kranke, & Floersch, 2009; Moses, 2010).

Stigma Toward Mental Illness

The stigma toward mental illness can strongly affect those with mental illness and lead to low mental health service access. In particular, stigmatizing attitudes were found to be highest in a sample of younger primary school children compared to older primary school children (Ndeti et al., 2016). In a US sample of 193 children (mean age: 12.5 years), the majority of students had positive attitudes towards those with mental illness, such as believing that they deserve respect and would not avoid someone who has a mental illness (Wahl, Susin, Lax, Kaplan, & Zatina, 2012). However, the same study found that students were less willing to date or invite someone with a mental illness to their home (Wahl et al., 2012). Many studies found that adolescents have moderate levels of mental illness stigma and low levels of mental health literacy (Chandra & Minkovitz, 2006; Pinto-Foltz, Hines-Martin, & Logsdon, 2010). Adult members of the public also hold negative beliefs about people with mental illnesses such as: They are dangerous, unpredictable, unattractive, and are unlikely and unworthy of being productive members of society (Corrigan, 2005; Farina, 1982; Fink, 1991). Mental illness stigma has been shown to have profound negative effects on those with a mental illness. Studies have found that perceived stigma and self-stigma was associated with increased suicidal ideation in persons labelled as

mentally ill (Oexle et al, 2016a; Oexle, Waldmann, Staiger, Xu, & Rüschi, 2016b; Wang, Weiss, Pachankis, & Link, 2016). Other possible consequences of mental illness stigma are: Ostracism, rejection, teasing, damage to self-esteem, and reluctance to seek or accept help (Crocker & Major, 1989; Kranke, & Floersch, 2009; Milich, & McAninch, 1992; Moses, 2010). As the stigma towards mental illness and poor mental health literacy are seen among all age groups, and lead to low service access, more research needs to be done on early prevention, protective factors, and early risk signs for mental illness.

Religious Involvement as a Protective Factor for Well-Being Concerns: Potential Mediating Role of Meaning

Religious involvement is a known protective factor for well-being concerns in young people (Baetz et al., 2004; Merrill & Salazar, 2002; Moore & Hair, 2002). Little is known about the mechanisms through which religious involvement leads to well-being. In spite of religious benefits on well-being, religious involvement, as measured by religious attendance, has decreased drastically over the years. In Canada, the General Social Survey found that 21% of young people ages 15 years and older attended a religious service once a week in 2005, a decrease from 30% in 1985 (Statistics Canada, 2008). The amount of people who reported they never attended a religious service was 33% in 2005 and 22% in 1985 (Statistics Canada, 2008). This national study found that the age group that was more likely to attend religious services were those aged 65 and older; 37% attended once a week, whereas only 16% of Canadians aged 15 to 44 attended services once a week (Statistics Canada, 2008). This decrease across the lifespan could be due in part to a growing trend of non-religious affiliation (Statistics Canada, 2008). There has also been an increase in those reporting that they have no religious affiliation, from 11% to 22% in adults over a 20-year period (Statistics Canada, 2008). Attendance at

religious services has also decreased within those who have a religious affiliation, decreasing from 34% in 1985, to 27% in 2005 (Statistics Canada, 2008). The most recent data also suggests these trends, with the largest response to religious attendance survey question items being “not at all” (42.4%), “at least once a week” (19.2%), and “a few times a year” (18.8%; Statistics Canada, 2011). When comparing religious attendance to the importance of spiritual beliefs, the same trends were not seen. In 2011, 70.2% of the population stated that religious/spiritual beliefs were important to them (Statistics Canada, 2011). However, contrary to these findings, although notable declines in the Canadian United and Anglican churches were still noted, a 2015 cross-Canada Angus Reid poll found a resurgence of religious attendance for Evangelical, Islamic, Catholic, Buddhist, and Sikh persons due to increasing immigrant populations (Hutchins, 2015). Given that religious attendance has been shown to have positive effects on mental health (Baetz et al., 2004; Ellison & Levin, 1998; McCullough, Hoyt, Larson, Koenig, & Thoreson, 2000), it seems important to understand the ways through which religion can enhance well-being in children. It may also be helpful to understand how thriving congregations, compared to dying congregations, are serving their young people in a helpful manner. Furthermore, as young people attend places of worship and schools, then reaching children in places where they frequent with strategies to enhance well-being and prevent mental health concerns may be appropriate:

Reaching this population fits well with M.H.C.C. guidelines noted previously (2012).

It is known that religious involvement is positively related to well-being (Baetz, Grissin, Bowen, Koenig, & Marcoux, 2004; Merrill & Salazar, 2002; Norton et al., 2008). The most common way to measure religious involvement is by inquiring about the frequency of which one attends a place of worship (Norton et al., 2008). One study of elderly participants found that attending church weekly or more had a significantly lower risk for depression in a two-year

longitudinal study (Norton et al., 2008). Even after accounting for history of depression, church attendance remained a strong protective factor (Norton et al., 2008). A meta-analysis found many correlations between religious practices and behaviours and life satisfaction, happiness, positive affect and higher morale (Moreira-Almeida, Neto, & Koenig, 2006). The same meta-analysis found that religious involvement predicted less depression, suicidal ideation, suicidal behaviour, and substance abuse (Moreira-Almeida et al., 2006). An American study found that those who attended church services regularly had the lowest levels of mental illness when compared to those who did not attend or did not attend frequently (Merrill & Salazar, 2002). A Canadian study found similar results in adolescents and adults whereby regular worship attendees had significantly fewer depressive symptoms (Baetz et al., 2004). Research has even found that religious involvement has correlates with longer life expectancy (Koenig, McCullough, & Larson, 2001; Oman & Reed, 1998; Strawbridge, Shema, Cohen, & Kaplan, 2001), better coping with stressful life events (McCullough et al., 2000), higher psychological well-being (Ellison & Levin, 1998), and fewer instances of substance abuse (Kendler, Gardner, Prescott, 1997). In adolescents, religious involvement is associated with psychosocial maturity and various ego strengths like hope and will (Markstrom, 1999). Religious involvement has also been shown to correlate with less risk-taking behaviour (Brownfield & Sorenson, 1991; Moore & Hair, 2002). High levels of religiosity have also been related to low levels of delinquency (e.g. theft, vandalism, and violence against others; Elifson, Petersen, & Hadaway, 1983). Teens who attended religious services were also shown to have more altruistic and prosocial behaviours and attitudes (Donahue & Benson, 1995). There have been very few studies that looked at children's religious involvement and even fewer that have looked at how attendance relates to mental health (Bridges, & Moore, 2002). Two studies, however, found that spirituality in children predicted

well-being (Holder, Coleman, Krupa, & Krupa, 2016; Holder, Coleman, & Wallace, 2010).

The connection between well-being and religious involvement is undisputed in adolescents and adults, however there has yet to be a consensus on why. Researchers suspect that it could be due to the following factors: Sense of meaning, social support, divine interaction, and psychosocial resources (Ellison, 1991; George, Ellison, & Larson, 2002). In children ages 8 to 12, religious attendance and other religious practices were not associated with child happiness, however spiritual well-being was related to higher rates of child happiness (Holder et al., 2010). “Meaning” is the spiritual aspect of personhood (Frankl, 1984). Therefore, unlike for adults and youth, religious attendance alone may not predict mental health in children but a sense of meaning may. In other words, meaning may mediate the relationship between religious attendance and well-being, and meaning alone—regardless of religious attendance or not—may also predict well-being, as noted previously.

Research shows that regular attendance at a place of worship may enhance well-being (Ellison & Levin, 1998; Donahue & Benson, 1995; McCullough, Hoyt, Larson, Koenig, & Thoreson, 2000; Norton et al., 2008). However, little is known about the mechanisms through which religious attendance might lead to resilience and positive child development (Ellison, & Larson, 2002). In a time period when the congregations of some places of worship are declining (Statistics Canada, 2008), it is important to understand the ways in which religious institutions may function uniquely to enhance well-being so that strategies may be developed or enhanced within local religious institutions.

Originality and Clinical Implications

It is undeniable that early screening tools for mental health are crucial in treating and preventing mental health problems in children. One study found that 50% of mental health issues

surface by the age of 14 and can worsen over time (Kessler et al. 2005). As such, the current study will involve younger children, potentially to predict early risk and promote resilience before the emergence of more serious mental illness symptoms.

Many studies have explored the connection between meaning and mental health (Armstrong, & Manion, 2013; Frankl, 1984; Steger, & Kashdan, 2013). Studies are emerging to suggest that meaningful youth engagement and meaning-promoting programs for older youth predict lower suicidal ideation and enhanced mental health, particularly for young people at greatest risk for concerns (Armstrong, 2009; Armstrong & Manion, 2015; Armstrong & Manion, 2006; Kleftaras & Psarra, 2012; Steger et al. 2009). These studies have been conducted on adolescents (Bronk, Finch, & Talib, 2010; Ho et al., 2010) and adults (Dezutter et al., 2013; Bonebright et al., 2000), but meaning has yet to be explored in young children. This gap in the literature could be due to the dearth of self-report measures made for younger children. Potentially, interactive video-based, computer questionnaires combining visual and auditory input might allow children to understand survey content and participate. The audio-visual medium has been shown to produce more reliable results when compared with both paper and interview psychological assessments of children (Valla et al. 1994). The current study will, therefore, validate and—if appropriately valid and reliable—use video-based, interactive questionnaires to examine the relationship between meaning and well-being in children ages 6 to 12. As this is an initial examination of the interactive video-based questionnaires, we are considering this to be a pilot study aimed at informing our future research. Ultimately, the current study presents an important step in using self-report meaning and mental health measures with young children (even non-readers, given the audio-visual medium), as well as pioneering the literature on meaning and well-being in children. If meaning is found to be a predictor of

childhood mental health, as it has been for older populations, programs and resources could be implemented in places of worship, schools, higher risk communities, health facilities, and in child and family therapy sessions to promote meaning-making and, ultimately, resilience.

In addition to the relationship between meaning and well-being, the connection between religious attendance and mental health has been studied in many populations. A positive association was found between the two (Merrill & Salazar, 2002; Moore & Hair, 2002; Norton et al., 2008), but few studies have looked at this relationship in children (Ellison, & Larson, 2002). Those that have examined the relationship between religious attendance and well-being in children found “spirituality” to be the relevant factor (Holder et al., 2010). As meaning is the spiritual aspect of humanity, the present study will serve to examine meaning as a potential mediator between religious attendance and well-being in children. Results from this study may help local places of worship build capacity to support positive child development, and potentially grow their population of young people in a time-period where some religious congregations are shrinking (Statistics Canada, 2008). Using a phenomenological qualitative approach, we will also explore child perspectives on the things that places of worship are already doing that are meaningful for them. This research will hopefully illuminate what religious communities can do to enhance meaning, skills for resilience, and child well-being. As meaning is a “spiritual” concept, in comparison to schools and other facilities that children frequent, places of worship may be particularly receptive to approaches that enhance child well-being through building a sense of meaning.

Hypotheses and Research Questions

Are the video-based measures valid and reliable for use in the present study? It is predicted that the measures will demonstrated good convergent validity and internal consistency

reliability. Previous validation research with the paper-and-pencil versions of these measures demonstrated excellent internal consistency reliability (Cronbach's alpha of .95), face validity, and convergent validity with 9 to 12-year-old children (Armstrong, 2016).

Is a sense of meaning, as measured by agency, self-esteem, hope, and openness to experience related to well-being? Based on past research with adolescents and adults, and research with children on the components of meaning (agency, self-esteem, hope, and openness), it is hypothesized that meaning will be inversely predictive of depressive symptoms, behavioural concerns, and anxiety and, thus, predictive of well-being.

Does meaning mediate the relationship between religious attendance and mental health in children? It is predicted that meaning will mediate the relationship between the frequency of religious attendance and mental health in children. Past research has studied this in adults (Ellison, 1991; George, Ellison, & Larson, 2002) and found that a sense of meaning was one factor that enhanced the relationship between religious attendance and mental health.

What is meaningful for children about attending a place of worship? As little is known about what young people already find meaningful about attending places of worship, we will explore this qualitatively.

Methodology

Measures (Appendix A)

The Ch.I.P. The Child Identity and Purpose Questionnaire (Ch.I.P.) is a computerized measure of meaning in children, assessing agency, self-esteem, hope for the future, and openness to experience (Armstrong, 2016). The Ch.I.P. has 17-items and uses a 2-point dichotomous scale from 1 (I was like Chip) to 2 (I was like Ceira). A boy and girl character (Chip and Ceira) are counterbalanced across items. Children are asked to choose which character they can relate to for

each statement (*e.g., Chip is happy to be Chip; Ceira is not happy to be Ceira*). Early statistics indicate good content validity, face validity, and internal consistency ($\alpha = 0.95$; Armstrong, 2016a). Development in collaboration with over 150 children, youth, psychotherapists-in-training, clinical psychologists and psychiatrists has led to inter-rater agreement on content validity, face validity, and sampling validity across appropriate domains. Further analyses will be performed in this study to explore the convergent validity, reliability, and internal consistency of the video-based version of the measure.

The I.S.A. The Interactive Symptom Assessment (I.S.A.) is a self-report measure of mental health in children assessing concerns such as anxiety, depression, ADHD, externalizing problems, and OCD. The computerized scale has 24-items and uses a 2-point scale from 1 (I was like Isa) to 2 (I was like Eibe), or vice versa as characters are counterbalanced, to rate the agreement with two statements (*e.g., Isa was cheerful this week. Eibe was grouchy this week*). Each item represents well-being or a Diagnostic and Statistical Manual-5 ([DSM-5]; American Psychiatric Association, 2015) symptom relevant for children. Development in collaboration with over 150 children, youth, psychotherapists-in-training, clinical psychologists and psychiatrists has led to inter-rater agreement on content validity, face validity, and sampling validity across appropriate domains. Further analyses will be performed in this study to determine the convergent validity, reliability, and internal consistency of the video-based version of this measure. The paper-and-pencil version of this measure exhibited a .95 internal consistency reliability (Armstrong, 2016b).

Measures Used to Assess Convergent Validity

The following text-based questionnaires, designed for older children and youth (as no child-friendly measures exist to assess these factors in children as young as six years), were used

to assess convergent validity with the interactive video-based measures.

The Single Item Self-Esteem Scale. The Single Item Self-Esteem Scale (SISE; Robins, Hendin, & Trzesniewski, 2001) uses one item to measure self-esteem. Participants rate the statement “*I have high self-esteem*” on a 5-point Likert scale from 1 (not very true of me) to 5 (very true of me). The SISE demonstrated high convergent validity, good internal consistency ($r=.75$) and reliability ($r=.75$; Robins et al., 2001).

The Children’s Hope Scale. The Children’s Hope Scale (Snyder et al., 1997) has 6 items, and participants rate the applicability of each statement to them (*e.g. I am doing just as well as other kids my age*). Participants rate statements on a 6-point Likert scale from 1 (None of the time) to 6 (All of the time). Items are averaged to create a total score ranging from 1 to 6. Higher scores indicate greater hope. The Children’s Hope Scale has demonstrated good convergent validity and internal consistency ($\alpha=0.77$; Snyder et al., 1997).

The Ten-Item Personality Inventory. The Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow & Swann, 2003) has 10-items which were adapted from the Big Five Inventory (BFI; John & Srivastava, 1999) that measures five dimensions of personality: Extraversion, agreeableness, conscientiousness, neuroticism, and openness (John & Srivastava, 1999). Only the factor of openness (Items 5&10) will be used in this study. Participants rate each statement on a 7-point Likert scale from 1 (Disagree Strongly) to 7 (Agree Strongly). Item 10 is reverse scored. Items are averaged for each factor. Higher scores indicate higher openness. Scores from 5.6 to 5.4 are average openness for 15 to 20 year olds (Gosling, Rentfrow & Potter, 2014). The TIPI openness scale has demonstrated good validity, convergent validity and test-retest reliability (.72 across 6 weeks; Gosling et al., 2003).

The SWEMWBS. The Short Warwick-Edinburgh Mental Well-being Scale

(SWEMWBS; Stewart-Brown et al., 2009) measure agency with 7-items rated by participants on a 5-point Likert scale from 1 (None of the Time) to 5 (All of the Time). All items are score positivity. Scores are summed to create a total score. Higher scores indicate higher level of mental health well-being (Stewart-Brown et al., 2009). The SWEMWBS demonstrated good face validity, reliability ($\alpha = .85$) and is considered to be largely free of item bias (Stewart-Brown et al., 2009).

The ONS. The Office for National Statistics (ONS) subjective well-being questions measures mental health with 4-items. Only the first 3 items are used as the fourth item measures meaning. Participants respond to each item with a number from 0 (Not at all) to 10 (Completely). The ONS questions were developed as part of the Measuring National Well-being Programme in the United Kingdom. The questions were created by specialists in the field of well-being and qualitative tests and cognitive testing were conducted using the ONS Opinions Survey (Dolan & Metcalfe, 2011). All questions had a mean response ranging from 7.04-7.87, indicating reasonable reliability (Dolan & Metcalfe, 2011).

Qualitative Question

Children were asked, “If you attend a place of worship, what do you like about it? What makes it important to you?” Past research suggests that “liking” an activity and “importance” of the activity to the child are two things that make engagement meaningful for young people (Armstrong & Manion, 2015). Therefore, as the goal of a phenomenological approach is to explore the meaning of an issue for a particular group of people, such a question was considered to be appropriate for the purpose of our research.

Participants and Procedure

A sample of 62 children (29 males, 32 females) completed the online questionnaire. The

average age of our sample was 9.74 (SD=2.15; range 6 to 12) and 38.7% (25 participants) attended a place of worship. The sample reported attendance at a range of religious institutions, the most common institution attended was a Christian church (54.2%), while others attended Buddhist, Jewish or Hindu temples, or Mosques. Of those who did attend a place of worship, 29% attended several times a week, followed by, several times a year (17%), once or twice a year (17%), less than once a year (13%), 2-3 times a month (8%), once a month (8%), every week (4%), and almost every week (4%).

The study was reviewed and approved by the Office of Research and Ethics at Saint Paul University and the Upper Canada District School Board Ethical Review Board. Purposive sampling was used to select the participants for this study. Such methodology, for both quantitative and phenomenological qualitative approaches, is proposed by Welman and Kruger (1999) to be the most appropriate kind of non-probability sampling for participant selection. Therefore, the sample was selected based on the purpose of the research (Babbie, 1995; Greig & Taylor, 1999; Kruger, 1988; Schwandt, 1997), looking for participants who may have experiences that fit the phenomenon to be explored. We, therefore, carried out Internet searches to find places of worship in Ottawa, contacted Facebook groups that were relevant to the phenomenon of interest (adult parents attending a religious university, and Facebook groups of meaning-centred researchers or therapists), as well as schools. Both schools and religious institutions were invited to participate so that the sample could represent the range of children from non-religious to those who may attend places of worship frequently. Participants were recruited through contacting religious communities and schools via social media, emails, and phone calls. Half of all lifetime mental health concerns emerge by the age of 14 (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005). Given this, within the religious and

school communities, a group of 6 to 12 year olds were recruited. This study was carried out online in March 2017. All children ages 6 to 12 in these places of worship and were invited to participate, with appropriate parental consent. Each institution was given a brief advertisement, the link to the online survey, and was invited to advertise this with their school or religious community.

In an average of 27 minutes, participants completed an online, interactive questionnaire, along with additional text-based questionnaires to validate these measures. The survey was hosted by Fluidsurveys, an encrypted and secure website with firewalls that meets Canadian data security standards. The first page of the survey contained the consent form for parents/guardians to read and accept in order for the child to move onto the rest of the questionnaire. The online questionnaire was composed of two socio-demographic questions (age & gender), questions regarding religious attendance (whether they attend or not, frequency of attendance, type of place of worship attended, what they particularly like about attendance), and a question inquiring if the child would like to participate a second survey for our follow-on research. In addition to demographic items, the survey contains: The Ch.I.P., The I.S.A., Single Item Self-Esteem Scale, The ONS, SWEMWBS, the openness factor of the TIPI and The Children's Hope Scale. Only the R.E.A.L. & D.R.E.A.M. Lab of Dr. Laura Armstrong has access to the raw data. Children are not asked to include their names. An app-based list of local resources was also provided to participants who asked the researchers for this app; emergency contact information for Dr. Laura Armstrong was also provided.

Results

Data Analysis

Analyses were conducted with the Statistical Package for the Social Sciences (SPSS)

version 24.0. Data screening and cleaning, as well as multiple imputation for missing variables was carried out. Outliers were assessed using Mahalanobis Distance to examine whether any participant profiles were outlying at a $p < .001$. No outliers were found. Normality was assessed using skewness and kurtosis values in SPSS. Skewness and kurtosis between -2 and +2 are considered acceptable to suggest normal distribution (George & Mallery, 2010) and all of variables were found to be normally distributed. Descriptive analyses were also conducted, including mean scores, standard deviations, ranges, frequencies. Results were considered to be significant at $p < .05$.

Are the video-based measures valid and reliable for use in the present study?

Cronbach's alpha was used to assess internal consistency reliability. Convergent validity was assessed through correlations between the Ch.I.P. and the Children's Hope Scale, the TIPI, the SISE, and the SWEMWBS as well as between the I.S.A. and the ONS questions. Results showed that the I.S.A. demonstrated good internal consistency reliability ($\alpha = .82$). Results revealed an alpha of .80 for the Ch.I.P., which is evidence of good reliability, based on Hunsley and Mash (2008) criteria. The reliability of scales used to test convergent validity was also measured. The internal consistency reliability of the Children's Hope scale was $\alpha = .85$, the SWEMWBS was $\alpha = .90$. The reliability of the TIPI openness scale was poor ($\alpha = .18$) and was therefore not used to determine convergent validity. The ONS questions were not summed in the research so internal consistency reliability was not assessed, as items were used individually in analyses. The self-esteem measure was a single item so internal consistency was also not examined for this variable. Convergent validity was measured for the Ch.I.P. through correlations with the Children's Hope Scale, SWEMWBS, and SISE. Each scale was correlated with the Ch.I.P. ($r = .55$, $r = .50$, $r = .62$, respectively) to a significance of $p < .01$ (Table 2).

Convergent validity was also assessed by carrying out correlations between each ONS item and the I.S.A. Each item was significantly correlated with the I.S.A. ($r = .44$, $r = .39$, $r = .30$, respectively), $p < .05$, demonstrating good convergent validity.

Is a sense of meaning, as measured by agency, self-esteem, hope, and openness to experience related to well-being? Does meaning predict well-being?

To examine the relationship between meaning and mental health, as measured by the Ch.I.P. and I.S.A. respectively, Pearson's correlations were conducted. The two measures were correlated ($r = .70$) at a significance of $p < .01$. This indicates that those who have a higher self-reported sense of meaning also tend to have a better self-reported mental health. A regression analysis was performed to further explore the predictive relationship between meaning and mental health. The regression yielded an R^2 Adjusted of .50, which indicated that half of the variability in mental health scores was explained by meaning. The analysis showed that meaning scores significantly predicted mental health scores ($\beta = .90$, $p < .001$).

Does meaning mediate the relationship between religious attendance and mental health in children?

To explore mediation, a sequential linear regression was planned, with religious attendance (as measured by frequency of religious attendance) entered in the first step as a predictor variable, meaning at the second step (Ch.I.P.), and well-being (I.S.A.) was as the outcome variable. As the predictor (religious attendance) was not associated with either meaning or religious attendance, the full analysis could not be interpreted. However, although initial correlations between frequency of church attendance and mental health were not significant, $r = .15$, $p = .40$, after the inclusion of meaning as a mediator, r approached significance ($r = .31$, $p = .06$). The sample size of worship attendees entered into the present analysis was 25, while the

remainder were non-attendees.

What do Children Find Meaningful about Places of Worship?

Two independent researchers analyzed the qualitative question, “If you attend a place of worship, what do you like about it? What makes it important to you?”. The summary of qualitative item responses to this question were broken down into themes that reflected similar content. Interrater agreement was 100%. The main themes that were identified included:

1. *Learning about God.* Children enjoyed learning about God through worship and Sunday school (i.e., congregated child-only learning time with a teacher). They noted that learning involving food, fun, and crafts with friends were particularly important to them.
2. *Structured social activities.* Special non-service activities to look forward to were also important to children (e.g., shared meals, such as potlucks).
3. *Engaging music.* Children reported that their involvement in music (e.g., singing in a choir) and music that was “fun and cool” (both in-service and during child-only learning time) was important to them.
4. *Experiential moments.* Children reported dichotomous feelings of “calmness” and “excitement” as important to them. They noted that they found these moments in traditional “sacred” rituals (e.g., Puja), through a conveyed sense of “shared culture and experiences,” through a sense of awe (e.g., large building, beautiful stained glass), and through a connection with the Divine (“you can be with Jesus”) or angels (“I feel like angels are watching over me”).

Discussion

The current study had three objectives. The first was to explore the reliability and validity

of the video-based interactive questionnaires, the I.S.A. and Ch.I.P. Findings indicated that both scales demonstrated good internal consistency and good convergent validity when compared to existing text-based reliable scales. This was expected, as the paper-and-pencil version of the I.S.A. and the Ch.I.P. exhibited high internal consistency, content validity, and good face validity (Armstrong, 2016a; Armstrong, 2016b). It has been questioned whether younger children in the concrete operational stage of development are able to think abstractly, which is essential in the ability to form meaning (Piaget, 1952). This study demonstrated that children 6 to 12 have the capability to understand the concept of meaning when asked age-appropriate questions that fit the domains of meaning relevant for children. This finding was also seen in a study of 9-to-12 year olds, which used a child-friendly text-based questionnaire for that age group that was grounded in Logotherapy meaning-based theory similar to the present study (Shoshani & Russo-Netzer, 2016). Results of the present study also showed that, as the measure was found to be internally consistent, not only do children understand the concept of meaning when presented in a child-friendly manner, but they also demonstrated an overall high sense of self-reported meaning (Table 1).

The second objective was to determine if meaning, as measured by agency, self-esteem, hope, and openness to experience, was related to well-being or conversely to mental illness and behavioural concerns. Findings showed that meaning, both as an overall concept as well as the individual components representing meaning, were strongly associated with well-being (Table 2). In fact, meaning accounted for more than half of the explained variance in well-being. Meaning in life is recognized as a fundamental component of mental well-being (Frankl, 1984; Steger, & Kashdan, 2013; Wong, 2017). Frankl (1984) posits that all humans have a will to meaning, which is a drive to find significance in one's life. As the drive to find meaning is a

basic need, intrinsic to being human (Frankl, 1984), it should be important for all humans regardless of age, even if it presents or is understood somewhat differently across the lifespan. Results were consistent with the hypothesis that children with higher self-reported meaning would have better self-reported mental health—both internalizing and externalizing, as this has been seen in adults and adolescents (Armstrong, & Manion, 2013; Frankl, 1984; Garcia-Alandete, 2015; Steger et al., 2009; Steger, & Kashdan, 2013). The one study to date that has explored meaning in children also found a positive relationship between meaning in life and well-being (Shoshani & Russo-Netzer, 2016). Very few studies have examined this relationship in children, and the present study extends Shoshani and Russo-Netzer's research, as well as research with adolescents and adults, to a younger sample with interactive questionnaires.

The third objective of this study was to determine whether meaning explains the relationship between religious attendance and mental health. Similar to past research (Holder et al., 2010), we did not find a significant relationship solely between the frequency of religious attendance and well-being in children. However, with only a small sample of children who reported that they attend worship services, there was a trend toward significance when meaning was also included in analyses. Given the trend, findings were entered into a sample size calculator to determine the minimum sample required in order to potentially find significance with our current effect size and power at a $p < .05$. A minimum sample of 34 worship attendees would be required, while we had 25. It is possible that, with a larger sample of participants who attended a place of worship, meaning potentially could have enhanced, and thus, created a significant relationship between religious attendance and well-being. As many young children attend worship because their parents attend worship, rather than necessarily of their own volition, it seems reasonable to hypothesize that worship attendance would only enhance well-being if it is

meaningful for a child—if it enhanced agency, self-esteem, hope, and openness. In fact, in general, it is only activities that are meaningful for young people that enhance mental health (Armstrong & Manion, 2015): One cannot simply engage in any regular, structured activity and experience benefit. Given this, we have recruited a large religious school to participate in further research.

The specific aspects that children stated they enjoy about attending a place of worship were learning about God with friends, food, crafts, and activities; structured social activities outside of worship time; engaging child-friendly music and active participation in music delivery (e.g., choir); and experiential moments involving sacred rituals, active conveying of shared culture and history, and connection the Divine. Frankl (1984) dictated that there are three pathways in which one creates meaning; two of these are “creative” and “experiential” pathways. The creative pathway refers to what the individual gives to the world (Frankl, 1984). The experiential pathway refers to what experiences and encounters the individual gathers from the world (Frankl, 1984). The things that were important to children, such as hands on activities (e.g. crafts) demonstrate the creative pathway, whereas the structured social activities, child-friendly music engagement, and experiential moments reflect the experiential pathway. Given that children report that these aspects of worship are particularly meaningful for them, and our research demonstrates that meaning is predictive of well-being for children, places of worship should consider developing these capacities for the younger members of their congregations in order to enhance young people’s meaning and well-being.

In general, whether meaning-based approaches are implemented in places of worship, schools, or other sites that children frequent, there are four key aspects that should be addressed: Agency, self-esteem, hope, and openness. To build agency, teaching helpful ways to problem-

solve, and about choice, responsibility, and strategies to think and behave in healthy ways may be beneficial (Frankl, 1984). Through tools that enhance agency, children are able to feel competent and this in turn enhances self-esteem (Taylor, 2011). Other strategies to enhance self-esteem involve helping children to discover their interests, help them fully pursue these interests, and set reachable goals (Taylor, 2011). Hope is developed from mastery, secure attachment, and spiritual resources (Scioli, 2013). Cultivating hope can be achieved through developing children's ability to set clear and attainable goals, multiple strategies to reach those goals, and motivation to use those strategies to attain the goals, even when faced with difficulties (Zakrzewski, 2012). Openness is achieved through engaging a child as an active agent in the learning process (Fielstra, 1958) and enhancing social literacy about emotions (Lafrance Robinson, Dolhanty, & Greenberg, 2015). These skills are a recipe for enhancing meaning in children and may be foundational for a meaning-based prevention approach or as a framework for places of worship to engage with children in their spiritual-based teaching.

Limitations and Future Research

The current study has several limitations. First, this study had a small sample size, particularly of religious attendees, and future studies may consider replicating these findings with larger samples. Studies have found that the larger the ratio of subjects to items, the more generalizable the results (Anthoine, Moret, Regnault, Sébille, & Hardouin, 2014). The subject to item ratio is suggested to be 15:1 minimum, therefore a sample size of 425 would yield a ratio of 20:1. However, because this was a pilot study of the Ch.I.P. and I.S.A. video-based questionnaires and an initial exploration of the relationship between meaning and well-being in children, the sample size was adequate at 62 participants for these aspects of the study. Research stated that pilot study sample sizes should range between 10 to 30 participants (Hill, 1998; Isaac

& Michael, 1995). Second, the questionnaires used to validate the I.S.A. and Ch.I.P. were made for adults, adolescents, and older children, as none exist for younger children. The subjects may have therefore had difficulty understanding the items, providing inaccurate responses, which could have altered the results of reliability analyses (e.g., for the Openness scale, which was designed for adults). It has been shown that children can reliably and validly provide self-report information but this is contingent on age-appropriate instruments (Varni, Limbers, & Burwinkle, 2007). Third, data was based on self-report questionnaires so there may have been issues regarding recall bias which could have affected results. Finally, the way the qualitative question was phrased could have impacted the results as it did not overtly include an option for the children to say that nothing was meaningful. The question could have been phrased in a different manner, such as, “Do you enjoy attending a place of worship? Why or why not?”, which may have prompted a larger range of responses.

Further Implications

Results showed that meaning is predictive of mental health. As such, therapeutic approaches or interventions that highlight meaning-making could be used with children to enhance well-being. Frankl quoted Magna B. Arnold, “Every therapy must in some way, no matter how restricted, also be Logotherapy” (Frankl, 1984, p.130). Wong (2010) has developed Meaning Therapy, an approach based on Frankl’s Logotherapy (Frankl, 1984). This type of therapy could be used with children, as results demonstrate that meaning enhances well-being and protects against negative internalizing and externalizing outcomes. The experience of meaning was found for both children who did and did not attend religious services. Regardless of the location, children are finding meaning. Therefore, programs focused on enhancing meaning through each component of meaning could be introduced in places where children frequent (e.g.,

schools, places of worship, camps, after-school programs, etc.). Dr. Laura Armstrong developed a program entitled the D.R.E.A.M. Program: Developing Resilience through Emotions, Attitudes and Meaning (Armstrong, *in press*). This program was developed in collaboration with children ages 6 to 12 and mental health professionals in order to help promote meaning-making, through the components of meaning, and meaningful activity engagement in children. This program could be implemented in various parts of the community to help enhance meaning and therefore enhance mental health. Our study demonstrated that each component of meaning is also associated with well-being. There are existing programs that address the components of meaning independently—agency, self-esteem, hope, or openness. One study used a program entitled *Choice, Control & Change*, which was composed of 24 lessons given to children with obesity risk behaviours (Contento, Koch, Lee, & Calabrese-Barton, 2010). This program enhanced motivation and used self-determination theories to increase personal agency, and was found effective in their sample (Contento et al., 2010). The program “Building Hope for the Future” is a program designed to build hope in children over 5, 1 hour, weekly sessions (Marques, Lopez, & Pais-Ribeiro, 2009). This program was taught by teachers but can also be taught by parents to their children (Marques et al., 2009). They found that this program not only increased hope but also life satisfaction and an increased trend in academic achievement (Marques et al., 2009). Another program designed for fourth grade students, entitled “The Healthy Kids Mentoring Program” enhanced self-esteem and relationship building (King, Vidourek, Davis, & McClellan, 2002). Mentors were trained in how to implement the components and pre and post-test results indicated an increase in self-esteem (King, et al., 2002). These programs have been shown to increase one of the individual components of meaning and, therefore, well-being. However, a holistic approach, including all of the components of meaning in one prevention approach, may

be a better fit for longer-term resilience. Given the strong relationship between overall meaning and well-being in the literature, a program that enhances all of the components of meaning—or a way of engaging children in a setting that could enhance all of the components—may be particularly beneficial for well-being. The present study is, therefore, a catalyst for research on prevention approaches to directly enhance meaning and well-being in children. Furthermore, the current study also provides a framework for child-friendly, meaningful places of worship and ways to engage children with a mindfulness toward agency, self-esteem, hope, and openness.

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Appendix A

Found at: <http://uottawa.fluidsurveys.com/surveys/larmstrong/isa/>

Child Identity and Purpose Questionnaire (Ch.I.P.) – Interactive
Croyances de l'Enfant: l'Identite et une Raison d'être pour Aujourd'hui
CEIRA

We are going to play a game called Chip and Ceira. This is Chip. This is Ceira. Chip and Ceira feel, think, or act in ways that you may or may not feel, think, or act.

1) When things aren't going well for Chip, he thinks that he can come up with ways to fix the problem.

When things aren't going well for Ceira, she thinks that she can't come up with ways to fix the problem.

- I was like Ceira
- I was like Chip

2) Ceira believes that she can make choices about things in her life.

Chip believes he can't make choices about things in his life.

- I was like Ceira
- I was like Chip

3) When Chip has a difficult feeling like sadness, fear, or anger, he finds it easy to think about something to feel a bit better.

When Ceira has a difficult feeling like sadness, fear, or anger, she finds it hard to think about something to feel a bit better.

- I was like Ceira
- I was like Chip

4) When Ceira has a difficult feeling like sadness, fear, or anger, she talks to someone or plays with someone.

When Chip has a difficult feeling like sadness, fear, or anger, he doesn't talk to someone or play with someone.

- I was like Ceira
 - I was like Chip
-

5) When Chip has a difficult feeling like sadness, fear, or anger, he chooses to relax, have fun, or create something.

When Ceira has a difficult feeling like sadness, fear, or anger, she chooses not to do much of anything.

- I was like Ceira
 - I was like Chip
-

6) Ceira is happy to be Ceira.

Chip wishes that he were a different person.

- I was like Ceira
 - I was like Chip
-

7) Chip thinks that he is important to other people.

Ceira thinks that she is not important to other people.

- I was like Ceira
 - I was like Chip
-

8) Ceira thinks that she has done many things to be proud of.

Chip does not think that he has done many things to be proud of.

- I was like Ceira
 - I was like Chip
-

9) Ceira thinks that she can do things as well as other kids.

Chip doesn't think that he can do things as well as other kids.

- I was like Ceira
- I was like Chip

10) **Ceira knows that good things will happen in her life as she grows up.**

Chip doesn't know if good things will happen in his life as he grows up.

- I was like Ceira
- I was like Chip

11) **Ceira knows that she can find ways to get something that is important to her.**

Chip doesn't know if he can find ways to get something that is important to him.

- I was like Ceira
- I was like Chip

12) **When things are going badly, Chip thinks that things will get better.**

When things are going badly, Ceira thinks that things will never get better.

- I was like Ceira
- I was like Chip

13) **Ceira believes that her life is important.**

Chip believes that his life doesn't matter.

- I was like Ceira
- I was like Chip

14) **Ceira is interested in watching her own feelings, as well as other people's feelings.**

Chip is more interested in what he can see, hear, smell, taste or touch, rather than feelings.

- I was like Ceira
- I was like Chip

15) Chip likes to make-believe or come up with new ideas.

Ceira likes to see, hear, smell, taste or touch things right in front of her, rather than make-believe or coming up with new ideas.

- I was like Ceira
- I was like Chip

16) Chip likes to try new things and learn new things.

Ceira likes to stick with the things that she knows.

- I was like Ceira
- I was like Chip

17) Ceira often participates in a fun activity with other children and one or more adult activity leaders.

Chip does not often participate in a fun activity with other children and one or more adult activity leaders.

- I was like Ceira
- I was like Chip

I am a girl, boy, other

I am 6,7,8,9,10, 11, 12 years old

Do you go to a place of worship (e.g. a Church, Synagogue, Mosque, Gurdwara, Kingdom Hall etc.)?

If you go to a place of worship, which one?

- Church**

- Synagogue
- Mosque
- Gurdwara
- Temple
- Other
- Not applicable

What is the name of your place of worship?

How often do you go to a place if worship?

- Several times a week
- Every week
- Almost every week
- 2-3 times a month
- Once a month
- Several times a year
- Once or twice a year
- Less than once a year
- Never

If you attend a place of worship, what do you like about it? What makes it important to you?

Would you volunteer to participate in a second, shorter survey so that we can assess the stability of our findings? Place email here:

Found at: <http://uottawa.fluidsurveys.com/surveys/larmstrong/isa/>
**Interactive Symptom Assessment / Évaluation Interactive de Bien-Être:
Isa / Eibe**

We are going to play a game called "Isa / Eibe." This is Isa. This is Eibe. Many things happened to Isa and Eibe this week that may or may not have happened to you.

**1) Isa thinks that someone cared about her this week.
Eibe doesn't think that anyone cared about him this week.**

- I was like Isa
- I was like Eibe

**2) Isa felt good about the friends in her life this week.
Eibe didn't feel good about the friends in his life this week.**

- I was like Isa
- I was like Eibe

**3) Eibe felt that he did many things well this week.
Isa felt that she didn't do anything well this week.**

- I was like Isa
- I was like Eibe

**4) Eibe is feeling happy. Over the past week, he has been feeling happy most of the time.
Isa is feeling sad. Over the past week, she has been feeling sad most of the time.**

- I was like Isa
- I was like Eibe

**5) This week, Isa wanted to do many fun things.
Eibe did not feel like doing much this week.**

- I was like Isa
- I was like Eibe

**6) Isa had good dreams at night and good daydreams.
Eibe had bad dreams at night or scary pictures in his head during the day.**

- I was like Isa
- I was like Eibe

**7) Isa didn't lie to anyone this week.
Eibe told many lies this week.**

- I was like Isa
- I was like Eibe

**8) This week, Eibe enjoyed doing lots of his favourite things.
This week, Isa was bored when doing things that she usually finds fun.**

- I was like Isa
- I was like Eibe

**9) Isa was cheerful this week.
Eibe was grouchy this week.**

- I was like Isa
- I was like Eibe

10) Isa did not have arguments (or "fights") with her family or friends this week. Eibe often had many arguments (or "fights") with his family and friends this week.

- I was like Isa
- I was like Eibe

**11) Eibe was not worried this week.
Isa was feeling worried a lot this week.**

- I was like Isa
- I was like Eibe

**12) Eibe was not feeling nervous or afraid this week.
Isa was feeling nervous or afraid often this week.**

- I was like Isa
- I was like Eibe

**13) Isa had no headaches or stomach aches this week.
Eibe had headaches or stomach aches many days this week.**

- I was like Isa
- I was like Eibe

**14) This week, Eibe didn't have to do things over again or a certain number of times before they looked, felt, or sounded quite right.
This week, Isa had to do things over again or a certain number of times until they**

looked, felt, or sounded quite right.

- I was like Isa
- I was like Eibe

**15) Eibe was didn't worry about dirt, germs, or getting sick this week.
Isa was worried about dirt, germs, or getting sick this week.**

- I was like Isa
- I was like Eibe

**16) Isa had no trouble finishing her schoolwork this week.
Eibe had trouble finishing his schoolwork this week.**

- I was like Isa
- I was like Eibe

**17) Eibe was well-behaved and followed the rules at school this week.
This week, Isa got in trouble at school for not following the rules.**

- I was like Isa
- I was like Eibe

**18) Isa was well-behaved at home this week.
This week, Eibe got in trouble at home for not following the rules.**

- I was like Isa
- I was like Eibe

**19) Eibe did not push, hit, or kick any other kids this week.
This week, Isa pushed, hit, or kicked another child.**

- I was like Isa
- I was like Eibe

**20) Eibe was nice to everyone this week.
Isa said mean things to someone this week.**

- I was like Isa
- I was like Eibe

**21) Isa found it easy to sit still in class this week.
Eibe found it hard to sit still in class this week.**

- I was like Isa
- I was like Eibe

**22) Isa looked in the mirror this week and felt good about what she saw.
Eibe looked in the mirror this week and did not feel good about what he saw.**

- I was like Isa
- I was like Eibe

**23) Eibe was proud of himself this week.
Isa was not proud of herself this week.**

- I was like Isa
- I was like Eibe

Name:

Age: 6 7 8 9 10 11 12

Gender: Girl Boy Other

Single Item Self-Esteem Scale (SISE)

I have high self-esteem.

Not very true of me 1 ----2 ----3 ----4 ----5 ----6 ----7 Very true of me

Ten-item measure of the Big Five 1

Ten-Item Personality Inventory-(TIPI)

Here are a number of personality traits that may or may not apply to you. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies to you, even if one characteristic applies more strongly than the other.

Disagree strongly	Disagree moderately	Disagree a little	Neither agree nor disagree	Agree a little	Agree moderately	Agree strongly
1	2	3	4	5	6	7

I see myself as:

1. ____ Extraverted, enthusiastic.
2. ____ Critical, quarrelsome.
3. ____ Dependable, self-disciplined.
4. ____ Anxious, easily upset.
5. ____ Open to new experiences, complex.
6. ____ Reserved, quiet.
7. ____ Sympathetic, warm.
8. ____ Disorganized, careless.
9. ____ Calm, emotionally stable.
10. ____ Conventional, uncreative.

TIPI scale scoring (“R” denotes reverse-scored items):

Extraversion: 1, 6R; Agreeableness: 2R, 7; Conscientiousness: 3, 8R; Emotional Stability: 4R, 9;

Openness to Experiences: 5, 10R.

The Children's Hope Scale

Directions: The six sentences below describe how children think about themselves and how they do things in general. Read each sentence carefully. For each sentence, please think about how you are in most situations. Place a check inside the circle that describes YOU the best. For example, place a check (✓) in the circle (O) above "None of the time," if this describes you. Or, if you are this way "All the time," check this circle. Please answer every question by putting a check in one of the circles. There are no right or wrong answers.

1. *I think I am doing pretty well.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

2. *I can think of many ways to get the things in life that are most important to me.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

3. *I am doing just as well as other kids my age.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

4. *When I have a problem, I can come up with lots of ways to solve it.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

5. *I think the things I have done in the past will help me in the future.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

6. *Even when others want to quit, I know that I can find ways to solve the problem.*

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None of the time	A little of the time	Some of the time	A lot of the time	Most of the time	All of the time

Notes: When administered to children, this scale is not labeled "The Children's Hope Scale," but is called "Questions About Your Goals." The total Children's Hope Scale score is achieved by adding the responses to the six items, with "None of the time" = 1; "A little of the time" = 2; "Some of the time" = 3; "A lot of the time" = 4; "Most of the time" = 5; and, "All of the time" = 6. The three odd-numbered items tap agency, and the three even-numbered items tap pathways.

SWEMWBS

Below are some statements about feelings and thoughts. Please choose the answer that best describes your experience of each over the last two weeks.

Statements	None of the time	Rarely	Some of the time	Often	All of the time
I've been feeling optimistic about the future					
I've been feeling useful					
I've been feeling relaxed					
I've been dealing with problems well					
I've been thinking clearly					
I've been feeling close to other people					
I've been able to make up my mind about things					

Appendix B



Informed Consent Form for Parents

Purpose of the Study

Dr. Laura Armstrong from Saint Paul University and Elizabeth St. John, Master of Arts in Counselling and Spirituality Candidate at Saint Paul University, are carrying out a research study looking at childhood well-being as it relates to a sense of meaning or purpose. We are also exploring whether religious attendance uniquely enhances the relationship between meaning and well-being and what makes religious attendance helpful for young people. Key implications of this study involve gaining insight into childhood meaning for the purpose of early risk prediction, as well as the development of approaches aimed at reducing child and youth symptoms of distress. Furthermore, existing prevention approaches for young children are difficult to evaluate for effectiveness, as questionnaires often require reading ability. The questionnaires used in our study are primarily video-based and their validation will allow for effectiveness studies of many existing school-based mental health promotion approaches for young children.

Procedure

If you agree to let your son/daughter participate, he/she will complete online, confidential questionnaires about his/her sense of meaning, the individual components of meaning, and well-

being. If your son/daughter feels uncomfortable answering some of these personal questions, then he/she may refrain from doing so. Participation in this project may take approximately 30-45 minutes of your son/daughter's time. This will take place during school hours.

Rights of Participants

If you decide to let your son/daughter participate, he/she will be free to withdraw from the study at any time. In addition, he/she is free to refuse to answer any question on the questionnaires. Participation in the study is fully voluntary. The information that your child provides will help greatly in our understanding of childhood meaning as it relates to positive well-being. Religious attendance will also be examined. All information collected from your child will remain completely confidential and will be stored in a locked office on an encrypted, password protected computer. We are also using online survey software that is compliant with Canadian privacy laws and will not be accessible to anyone but the researchers. Questionnaires will be number-coded and anonymous. Answers will remain confidential and will be used for research purposes only. If consent for participation is withdrawn, then your child's data will not be included in our analyses and will be securely deleted.

Limits to Confidentiality and Benefits of Participation

Participation risk is minimal. An app-based list of local resources will also be provided to participants if your son/daughter would like help for well-being or behavioural concerns and they can contact the researchers for this app. Given this, participation may be beneficial for your child. Participation may also be fun as children get to watch brief video clips.

Contact Information

This research has been reviewed by the Saint Paul Research Ethics Committee. This committee helps ensure and protect the rights and welfare of those participating in research. If you have any other concerns or questions, they can be directed to Dr. Laura Armstrong at xxx-xxx-xxxx, ext. xxxx. Overall results of this research will be provided to your local school or religious community or available directly to you upon request.

Please click below to allow your son/daughter to participate.

Email and Advertisement for Places of Worship

Dear xxx,

Research shows that regular attendance at a place of worship enhances child well-being. Little is known about the mechanisms through which religious attendance leads to resilience and positive child development. In a time period when the congregations of many places of worship are declining, it is important to understand the ways in which religious institutions function uniquely to enhance well-being so that local religious institutions may further develop this capacity. Dr. Laura Armstrong, C.Psych., Elizabeth St John (M.A candidate) and Emmalyne Watt (PhD Candidate) are examining this issue and we will share our findings with the local religious community. Our video-based online questionnaires for children are based in Frankl's Logotherapy theory on the characteristics that enhance meaning – a spiritual aspect of personhood that may lead to positive developmental outcomes. Could you advertise our research within your religious community?

Ad:

We're looking for children ages 6-12 to participate in an online video-based survey looking at the relationship between religious attendance and well-being. Little is known about how religious attendance builds child well-being. Dr. Laura Armstrong, C.Psych., Elizabeth St John (M.A candidate) and Emmalyne Watt (PhD Candidate) from Saint Paul University in Ottawa are examining this issue. We will share our findings with the local religious community. All data collected will be anonymous. If you volunteer to participate, please have your child complete this survey by **March 25**. Thank you so much for your participation. In a time period where many religious congregations are shrinking, results from this survey will help local places of worship build local capacity to support positive child development and potentially grow their population of young people. Ultimately, this research will illuminate what works in religious communities to enhance meaning, skills for resilience, and child well-being. [Please click on the following to complete the survey:](#)

<http://uottawa.fluidsurveys.com/surveys/larmstrong/isa/>

Sincerely,

Dr. Laura Armstrong, C.Psych.
Elizabeth St. John, M.A. Candidate
Emmalyne Watt, Ph.D. Candidate
Amanda Dewsbury (Research Assistant)

Email and Advertisement for Schools

Dear xxx,

Research shows that meaningful involvement in the community enhances child well-being. Little is known about the mechanisms through which meaningful activities lead to resilience and positive child development. In a time period when the levels of child distress, internally and behaviourally, is higher than it has been in 15 years it is important to understand the ways in which having a sense of meaning in life functions to enhance well-being so that local schools and parents may further develop this capacity. Dr. Laura Armstrong, C.Psych., Elizabeth St John (M.A candidate) and Emmalyne Watt (PhD Candidate) are examining this issue and we will share our findings with the participating schools in the community. Our video-based online questionnaires for children are based in Frankl's Logotherapy theory on the characteristics that enhance meaning – a spiritual aspect of personhood that may lead to positive developmental outcomes. Could you advertise our research within your school?

Ad:

We're looking for children ages 6-12 to participate in an online video-based survey looking at the relationship between a sense of meaning in life and well-being. Little is known about what builds childhood well-being. Dr. Laura Armstrong, C.Psych., Elizabeth St John (M.A candidate) and Emmalyne Watt (PhD Candidate) from Saint Paul University in Ottawa are examining this issue. We will share our findings with the schools in community that participated. All data collected will be anonymous. If you volunteer to participate, please have your child complete this survey by **March 25**. Thank you so much for your participation. In a time period where childhood well-being is one of the main concerns for schools, results from this survey will help gain insight into childhood meaning for the purpose of early risk prediction, as well as the development of school-based prevention approaches aimed at reducing child and youth symptoms of distress. Ultimately, this research will illuminate what works in schools to enhance meaning, skills for resilience, and child well-being. [Please click on the following to complete the survey:](#)

<http://uottawa.fluidsurveys.com/surveys/larmstrong/isa/>

Sincerely,

Dr. Laura Armstrong, C.Psych.
Elizabeth St. John, M.A. Candidate
Emmalyne Watt, Ph.D. Candidate
Amanda Dewsbury (Research Assistant)

**Ethics Certificate
Research Ethics Board (REB)**

REB File Number 1360.9/16

Principal Investigator / Thesis supervisor / Co-investigators / Student

<u>Last name</u>	<u>Name</u>	<u>Affiliation</u>	<u>Role</u>
St John	Elizabeth	Faculty of Human Sciences	Student-Principal Investigator
Armstrong	Laura	Faculty of Human Sciences	Thesis Supervisor

Type of project MA Thesis

Title Lack of Meaning as an Early Determinant of Childhood Mental Health & Behavioural Concerns.

<u>Approval date</u>	<u>Expiry Date</u>	<u>Decision</u>
29-09-2016 <i>(dd-mm-yyyy)</i>	28-09-2017 <i>(dd-mm-yyyy)</i>	1 (approved)

Committee comments:

**The Research Ethics Board (REB) approved the project.
The researcher is invited to use the reference number 1360.9/16 when
recruiting participants.**

In accordance with the Tri-Council Policy Statement, the Saint Paul University Research Ethics Board has examined and approved the application for an ethics certificate for this project for the period indicated and subject to the conditions listed above.

The research protocol may not be modified without prior written approval from the REB. This includes, among others, the extension of the research, additional recruitment for the inclusion of new participants, changes in location of the fieldwork, any stage where a research permit is required, such as work in schools. Minor administrative changes are allowed.

The REB must be notified of all changes or unanticipated circumstances that have a serious impact on the conduct of the research, that relate to the risk to participants and their safety. Modifications to the project, information, consent and recruitment documentation must be submitted to the Office of Research and Ethics for approval by the REB.

The investigator must submit a report four weeks prior to the expiry date of the certificate stated above requesting an extension or that the file be closed.

Documents relating to publicity, recruitment and consent of participants should bear the file number of the certificate. They must also indicate the coordinates of the investigator should participants have questions related to the research project. In which case, the documents will refer to the Chair of the REB and provide the coordinates of the Office of Research and Ethics.

Signature

Louis Perron
Chair
Research Ethics Board (REB)

**Ethics Certificate
Research Ethics Board (REB)**

REB File Number 1360.9/16

Principal Investigator / Thesis supervisor / Co-investigators / Student

<u>Last name</u>	<u>Name</u>	<u>Affiliation</u>	<u>Role</u>
St John	Elizabeth	Faculty of Human Sciences	Student-Principal Investigator
Armstrong	Laura	Faculty of Human Sciences	Thesis Supervisor

Type of project MA Thesis

Title Lack of Meaning as an Early Determinant of Childhood Mental Health & Behavioural Concerns.

	<u>Approval date</u>	<u>Expiry Date</u>	<u>Decision</u>
Initial approval	29-09-2016 (dd-mm-yyyy)	28-09-2017 (dd-mm-yyyy)	1 (approved)

Revision: Minor change to the sample

Emailing places of worship and inviting participation in the survey online (using the same administration protocol as last approved project using these surveys – online instead of live administration). Adding 2 demographic questions on how often the young people attend church and what is meaningful about church for them.

Committee comments:

The Research Ethics Board (REB) approved the change to the sample as presented.

The researcher is invited to use the reference number 1360.9/16 when recruiting participants.

In accordance with the Tri-Council Policy Statement, the Saint Paul University Research Ethics Board has examined and approved the application for an ethics certificate for this project for the period indicated and subject to the conditions listed above.

The research protocol may not be modified without prior written approval from the REB. This includes, among others, the extension of the research, additional recruitment for the inclusion of new participants, changes in location of the fieldwork, any stage where a research permit is required, such as work in schools. Minor administrative changes are allowed.

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Signature

Louis Perron
Chair
Research Ethics Board (REB)

1/1

Table 1

Means of Scales

Variable	M (SD)	Range
I.S.A	18.60 (3.72)	0-23
Ch.I.P.	13.81 (2.90)	0-17
CHS	28.14 (6.03)	6-36
SWEMBS	28.09 (5.64)	7-35
SISE	6.13 (1.24)	1-7
TIPI-O	9.66 (2.58)	2-14
ONS 1	9.14 (2.12)	0-10
ONS 2	9.09 (1.88)	0-10
ONS 3	4.28 (3.37)	0-10

Note. M = mean, SD = standard deviation, I.S.A. = The Interactive Symptom Assessment, Ch.I.P.= The Child Identity and Purpose Questionnaire, CHS = The Children's Hope Scale, SWEMBS = The Short Warwick-Edinburgh Mental Well-being Scale, SISE = The Single Item Self-Esteem Scale, TIPI-O = The Ten-Item Personality Inventory – Openness subscale, ONS = The Office for National Statistics Subjective Well-being Questions 1, 2, and 3

Table 2

Bivariate Correlations Among All Variables

Variable	1	2	3	4	5	6	7	8	9	10	11
1.I.S.A.	-										
2.Ch.I.P.	.648**	-									
3.CHS	.500**	.552**	-								
4.SWEMBS	.398**	.503**	.827**	-							
5.SISE	.658**	.618**	.574**	.528**	-						
6.TIPI-O	.389*	.428*	.015	-.122	.176	-					
7.ONS 1	.441*	.321	.601**	.419*	.435*	.402*	-				
8.ONS 2	.388*	.221	.256	.330	.533**	.317	.443*	-			
9.ONS 3	.298*	.372**	.185	.221	.171	.076	.078	.268*	-		
10.POW _a	.128	.145	.217	.142	.023	.350*	.024	.063	.106	-	
11.fPOW	.310 ^t	.213	-.450*	-.329	.059	.346*	-.220	.235	-.034	-.479*	-

Note. ^t $p < .07$, * $p < .05$, ** $p < .01$, I.S.A. = The Interactive Symptom Assessment, Ch.I.P. = The Child Identity and Purpose Questionnaire, CHS = The Children's Hope Scale, SWEMBS = The Short Warwick-Edinburgh Mental Well-being Scale, SISE = The Single Item Self-Esteem Scale, TIPI-O = The Ten-Item Personality Inventory – Openness subscale, ONS = The Office for National Statistics Subjective Well-being Questions 1, 2, and 3, POW_a = place of worship attendance, fPOW = frequency of place of worship attendance