

**MOODS MANAGED: REFINING A MENTAL HEALTH EDUCATION GAME FOR
CHILDREN AND YOUTH IN RURAL ONTARIO**

KELTIE GARDINER

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Department of Counselling and Spirituality
Faculty of Human Sciences
Saint Paul University

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ABSTRACT

There is a high need for a solution to address the mental health needs of Canadian children and youth. Due to accessibility issues, rural areas in Canada are particularly vulnerable to more mental health troubles. A useful way to promote mental health is through board games. Moods Managed is a board game designed to teach children and families about mental health, promote skills that reduce mental health issues, and foster meaning mindset. The current study involved ongoing development of the board game Moods Managed through co-creation with rural families. Through a Knowledge Translation Integrated community action approach, feedback from participants was collected and the board game was assessed regarding whether it was perceived to be doing what it was designed to do. The implications of the current study are that this board game appears to promote healthy thinking, and is a fun, accessible way to disseminate mental health information to children and families. Given the encouraging results from this project, a future study may adapt the board game based on the present co-creation findings and test the game's validity over a longer period.

MOODS MANAGED: REFINING A MENTAL HEALTH EDUCATION GAME FOR CHILDREN AND YOUTH IN RURAL ONTARIO

At any given point in time, one in five young people in Canada experience mental health (MH) disorders (Centre for Addiction and Mental Health [CAMH], 2022; Smetanin et al., 2011). In fact, MH disorders in children and youth are particularly important to understand; a 2005 study showed that 70% of MH disorders are diagnosed before the age of twenty-five (Kessler et al.), and 38% before the age of 15 (Moroz et al., 2020). According to the Canadian Institute for Health Information (CIHI, 2023), over 1.2 million children have reported an issue with their mental health, but only 20% have access to proper mental health care. In 2018 a survey of pre-teen and teen Canadians diagnosed with anxiety and mood disorders found that 14% of participants had not received sufficient care (CIHI, 2023). The myriad of reasons for this insufficient care includes lack of resources or available services (Kourgiantakis, et al., 2023), high costs (Kougiantakis et al., 2022), services tailored to more crisis intervention, inconsistent services or services that isolate pathologies (Singh, et al., 2010; Cairney et al., 2015; Kourgiantoakis et al., 2023), stigma or racism related discrimination (Fante-Colman & Jackson-Best, 2020; Mental Health Commission of Canada [MHCC], 2015), and long wait list times for resources that are accessible (Kowaleski, 2011). In fact, over 28,000 children and youth are on waitlists for mental health services such as psychotherapy and intensive programs (Children's Mental Health Ontario [CMHO], 2020). Long waitlists and lack of resources ultimately lead to great developmental, psychological, and financial cost (Canadian Institute of Mental Health Research [CIHR], 2010), which over a lifetime can cost a family from \$260,000 and \$300,000 (Friedli & Parsonage, 2007; Smiths & Smith, 2010). Due to insufficient care, families are forced to compensate and suffer financial consequences. Specifically, parents may need to stay home to

care for their children, reduce their work hours, or pass up on opportunities for advancement. Thus, families can earn up to \$10,400 less per child per year than other families, which, sustained into adulthood, can amount to up to \$300,000 (Smith & Smith, 2010). Additionally, families are typically responsible for supporting their mentally ill child. One study revealed that parents can spend thousands of dollars on assessment alone, and may have to finance individual, group, or family therapy, as well as medication or in certain cases, case management and specialist fees (Dickson, et al, 2020). The financial burden does not just rest on parents, but also on the mentally ill child when they become an adult. Individuals suffering with mental illness, or who have history of mental illness, are less likely to successfully keep or manage jobs in the same way another person would. For example, individuals who had mental illness (specifically depression) in their childhood are likely to work seven weeks fewer than the average worker in a year (Stewart et al., 2003). Kessler et al. (2001) explains that depressive symptoms can impact the worker's energy levels required to sustain certain jobs. As a result, these individuals can make up to \$4,094 less per year than the average household.

The Mental Health Commission of Canada (MHCC) estimates that the Canadian economy bears a cost of over 50 billion dollars per year for mental health issues (2024a), where the cost per patient may add up to \$1.85 million per year (Seabury et al., 2019). Children's Healthcare Canada estimates that making a concerted effort to improve mental health care systems for youth would save \$28 billion per year (2023). However, if the state of mental health care and education does not improve, it is projected that mental health support and healthcare will cost \$307 billion by 2041 (MHCC, 2024b; 2012). Thus, there is imminent need for MH resources to be more readily accessible especially for communities and families where there is a higher risk of MH disorders (MHCC, 2024).

Needs of Northern and Rural Communities in Ontario

One of the main challenges in Ontario for children and youth with mental health troubles is access to care (Iyer et. al, 2015). When children do not have access to care for their mental illness, it leads to more problems at school and home. In Ontario, children and youth living in rural and northern areas of the province have worse mental health than those living in urban communities (Mandal & Burella, 2021). Further, there are more prescription medications used in rural communities for mental health concerns, particularly antidepressants, anti-anxiety medications, and sleep-aids than in urban regions. In addition, northern and rural communities in Ontario have more than twice the hospitalizations for MH and suicide-related issues. There are several risk factors that are exceptional to rural communities in Ontario, as opposed to their urban counterparts, that contribute to the worse MH conditions: social isolation, reduced education, stressors related to agriculture responsibilities, and heightened stigma surrounding MH (CMHA, 2024; Kevany & Jones-Bitton, 2020). Mental health resources being less accessible in these regions is one of the largest contributing factors to these concerns. There are limited physicians and mental health practitioners, few incentives for medical and mental health professionals to stay in rural or northern areas of Canada, and the resources that are available are spread far apart and difficult to access from certain rural communities (Boydell et. al., 2014).

Mental Health Promotion (MHP) Programs

The Mental Health Commission of Canada (MHCC) and the World Health Organization (WHO) recommends that it is critical for mental illness prevention to start early, with an emphasis on fostering resilience, to combat a lifetime of challenges to well-being and healthy development (MHCC, 2024a; WHO, 2022). Mental health promotion is a promising avenue that can attend to the needs of rural areas in Canada that do not have access to adequate MH care

(Jenkins et. al., 2020). In 2019, the Canadian Mental Health Association (CMHA) in tandem with the National Council of Persons with Lived Experience, conducted a research project on the potential impact that mental health promotion programming has on people both with and without mental illness (2019). Since MH resources are scarce in rural communities, MHP programs and other creative modalities may be particularly important in promoting rural children and youth's mental health.

To enhance mental health, MHP helps people deal with life's challenges, improve their emotional and spiritual well-being, build long-lasting social connections, fosters respect for people in different cultures to them, and helps people enjoy life more (CMHA, 2019). Specifically, in child and youth mental health there is strong evidence that MHP in early years of a person's life may produce significant benefit (MHCC, 2024b). A study in the UK yielded results suggesting that mental health promotion is linked to enhanced resilience, and reduced risk, in children who initially had high risk for developing conduct disorder (Friedli & Parsonage, 2007). MHP can be carried out in schools, in the home, and in the community: the environments in which a young person frequents.

One of the most effective ways to support a child is to improve their environment, including at school (Joint Consortium for School Health [JCSH], 2010). When schools take advantage of the opportunity to provide children with psychoeducation at an early age, children are more likely to develop social and emotional skills which contribute to mental wellbeing. In-school MHP programming aims to reduce unwanted behaviours and appears to improve adjustment and emotional skills (Diekstra & Gravesteyn, 2008; Greenberg et.al., 2003). These programs provide psychoeducation and skills-building, developing self-awareness, relationship

skills, and self-agency, which are all protective factors from mental struggles and illness (CASEL, 2024).

There is also a strong economic case to be made for mental health care programming. Specifically, children with severe emotional challenges are more likely to be involved with the legal system, experience hospitalizations, need education assistance, be placed in foster care, and put on government assisted income support (Scott, 2001; Gyllenberg, 2010; Calder 2010; Fergusson, 2005; Mihalopoulos & Harris, 2009), all which impact Canada's economy. For instance, secure custody of a single minor costs around \$51,000 per year, and an average incarceration costs Canada around \$81,000 per year (Public Safety Canada, 2022). There is evidence that shows investing in a single child's mental health through MHP could save families and health care systems over \$140,000 over a lifetime (Smith & Smith, 2010), and greatly reduce economic burdens such as incarceration and welfare. In Canada, MHPs have been found to be cost-effective solutions for children struggling with their mental health (Schwartz et al., 2009). The Public Health Agency of Canada estimated that an MHP in Alberta called "Triple P Parenting Program" could save the province \$7.6 million dollars and would break even after implementation costs if only 1.6% of the participants successfully showed improvement after completion (Mihalopoulos, 2007; MHCC, 2024b). Other Canadian family-focused programs which provide early childhood education have been shown to help individuals who are struggling with depression and anxiety, which was found to save Canada between \$1.80 and \$17.07 per dollar invested (Karoly, 2010; MHCC, 2024b). When MHPs are implemented, specifically for children at a young age, or for parents who are raising kids, the economic burden associated with mental health care is made lighter.

Developing Resilience Through Emotions, Attitudes, and Meaning (DREAM)

One existing school and community based MHP program that targets MH in general, including both internalizing and externalizing concerns, is the DREAM Program (Developing Resilience through Emotions, Attitudes, and Meaning [Armstrong et al., 2018]). DREAM is a MHP program that uses original songs, video teaching episodes, and hands-on activities to teach kids resilience skills (Armstrong, et. al, 2018). DREAM strives to empower the school systems and other education spaces with a cost-effective solution to the concerning MH needs (Armstrong, 2017). The program uses an approach called Meaning Mindset (MM) Theory (formerly called “REAL”: Rational-Emotive, Attachment, Logotherapy [Armstrong, 2016, 2017]) which emphasizes all emotions – both light and dark – in a child’s journey to well-being. The program is comprised of several interactive units that target MH characteristics and strengths such as mental health literacy, relaxation, meaningful living, and deciphering the connection between thoughts and feelings (Armstrong, 2018).

In the DREAM program, Rational-Emotive Behavioural Therapy, Attachment Therapy, and Logotherapy are interwoven: the program promotes healthier ways of thinking, teaches perspective-taking skills, and promotes agency over one’s thoughts and behaviours (Armstrong et. al., 2018). Rational-Emotional Behavioural therapy (REBT) is included in the DREAM program as REBT serves as a psychoeducation tool; the program aims to challenge unhelpful thinking and promote healthier thinking and behaviour in children. Attachment theory is incorporated into MM, because the DREAM program seeks to foster healthy connections between children and their friends and families (Armstrong, 2017). Additionally, logotherapy is included in MM, because the DREAM program promotes openness to new experiences, ideas, and the emotions of others.

As noted, the DREAM program is founded in a Third-Wave Positive Psychology approach called Meaning Mindset Theory, which seeks to foster self-esteem, sense of control over one's thoughts, feelings, behaviours, and openness to the future, new experiences, and new ideas. The DREAM program has yielded great success, ultimately teaching participants resiliency skills. This MHP is built of 8 units, each designed to instill a concept to its user through a creative modality such as art, drama, a game, or storytelling. For instance:

Unit 1. Uses drama to teach kids about common feelings, and how to identify them. It asks the questions, "What is mental health? What is mental illness?" to reduce stigma and promote hope that there are things we can do to feel better.

Unit 2. Builds on Unit 1, and helps participants explore the different ways people experience common emotions through playing a card game. This unit also provides psychoeducation about how our feelings and thoughts may influence our behaviour.

Unit 3. Uses art to teach participants various relaxation techniques, and other tools for reducing stress and anxiety.

Unit 4. Extrapolates on the concepts taught in Unit 3 and teaches participants the importance of having a trusted adult in one's life.

Unit 5. Focuses on psychoeducation concerning thoughts, the difference between helpful thoughts and unhelpful thoughts, and the correlation between one's thoughts and feelings.

Unit 6. Focuses on avoidance, using storytelling to explore the correlation between avoiding scary experiences and our feelings.

Unit 7. This unit begins to introduce the concept of "meaning," building on the information from the previous units. Participants learn about helping others, and how engaging in extracurricular activities help our wellbeing.

Unit 8. This unit serves as a conclusion to the DREAM program and uses art and superhero themed storytelling to assist participants apply what they learned to themselves.

Stakeholders have even reported the reduction of stigma in the classrooms after implementing DREAM (Armstrong, 2017). However, the MHP has only been evaluated over the short-term. Strategies to enhance skills learned over a longer period, such as reinforcement activities at home (e.g. games, board games), may be a helpful addition to this existing program. In fact, comprehensive MHPs that reach young people both at school and at home tend to be most holistic and lead to the best outcomes for young people (Manitoba Edu, n.d.). Thus, enhancing DREAM through an at-home reinforcement strategy, such as a game, might be beneficial.

Theoretical Framework: Meaning Mindset Theory (MMT) in Third Wave Positive Psychology

Third Wave Positive Psychology (PP3.0) builds on and includes all the principles from Second Wave Positive Psychology (PP2.0), drawing from existentialism and Logotherapy which are based on the idea that finding meaning is essential for well-being (Frankl, 1946/1986; Wong, 2017). Where the first wave of Positive Psychology (PP) emphasizes that positive phenomena such as pleasure or happiness should enhance well-being (Lomas et al., 2020; Pawelski, 2016a, 2016b), PP2.0 takes a more nuanced position. PP2.0 posited that it is important to work with both positive and negative emotions when making meaning of our experiences (Itzvan et al., 2015; Wong, 2017). For example, while tough emotions can signal potential problems or unhelpful thoughts, suppressing these feelings can make it harder to make positive changes (Itzvan et al., 2015).

Unlike the first wave of Positive Psychology, which focused on pursuing pleasurable feelings, PP2.0 suggests that happiness naturally comes from finding meaning (Wong & Worth, 2017). It also recognizes that every experience can have both positive and negative aspects (e.g. some chocolate is good, while too much chocolate can make a person sick). Thus, PP2.0 emphasizes the importance of not having too much of a good thing and sees challenging experiences as opportunities for growth, creativity, and connection (Wong & Worth, 2017)

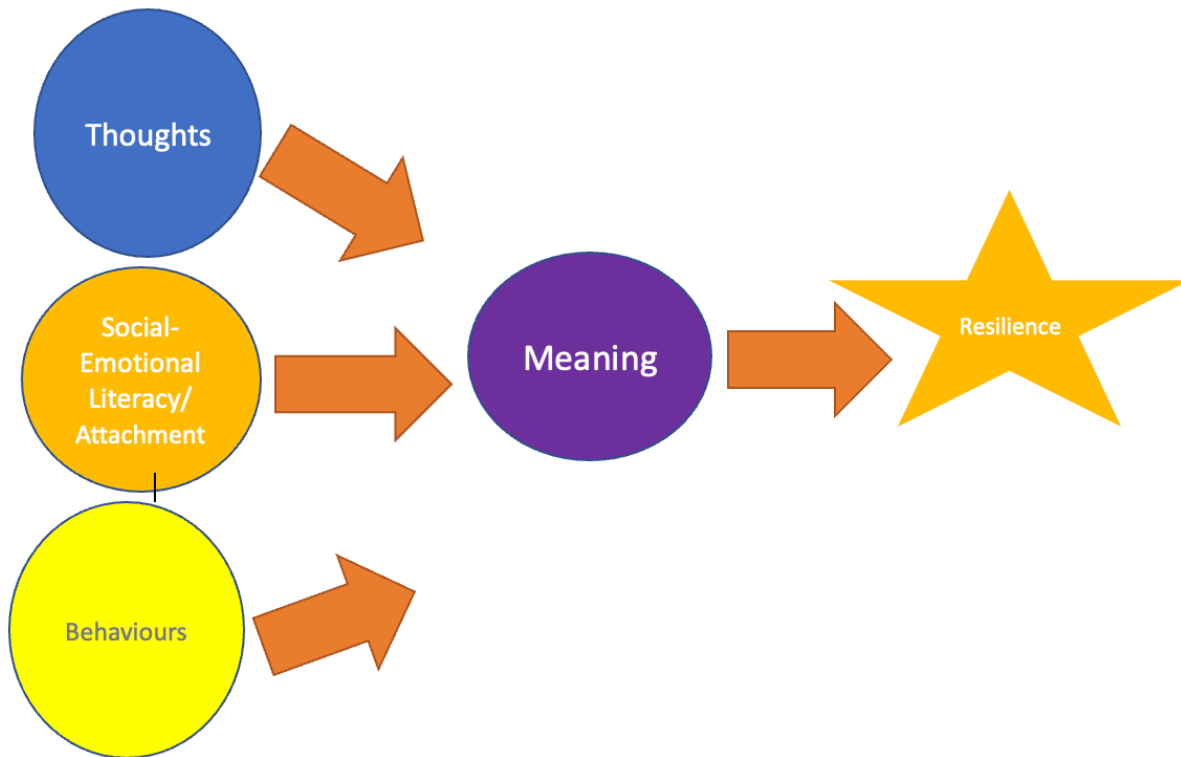
PP3.0, building on PP2.0, is an interdisciplinary therapeutic approach that takes the potential impact that groups and systems have on people into consideration when conceptualizing their wellbeing (Lomas et al., 2020). It combines different approaches and considers social justice issues. For example, when a member of the LGBTQIA+ community comes into therapy, the therapist can consider how being a part of this marginalized community may impact their growth and wellbeing. Such people would also be included in the development of MHP programming affecting them to ensure fit. PP3.0 understands that the meaning of wellbeing can vary depending on someone's social, ethnic, or environmental context and promotes ethical practices (Lomas et al., 2020; Wissing, 2022).

MMT Foundations:

Meaning Mindset Theory (MMT), formerly Rational-Emotive, Attachment, Logotherapy (REAL), is a form of therapy rooted in Third-Wave Positive Psychology (PP3.0) that is an amalgamation of rational-emotive therapy, emotion-focused therapy, attachment therapy, and logotherapy (Armstrong & Potter, 2023). Meaning Mindset (MM) is “an orientation toward recognizing valued moments, experiences, creations, work, connections, or situations, as actualized through agency, positive self-concept, openness to experience, and hope for the

future” (Armstrong & Potter, June 2023). MM is experienced as “awe” or a self-transcendent emotion (Frankl, 1946/1986; Shiota et al., 2017).

Figure 1. Pathways to Resilience Through Meaning Mindset



(Armstrong & Potter, June 2023)

MMT Foundations: Rational-Emotive Behaviour Therapy (REBT)

REBT was originally a positivist approach, consistent with Stoic philosophy, which purported irrational thoughts can cause emotional problems (Ellis, 1993). Today, REBT is a cognitive behavioural approach that asserts that one’s thoughts may impact their emotions, and in turn their behaviours. The REBT approach teaches clients to re-examine the way they interpret situations, which ultimately leads to changes in maladaptive behavioural patterns (Ellis, 2004). Rooted in Cognitive Behavioural Therapy, REBT has clients examine their thoughts, and teaches

them how to recognize the emotions they experience. Such examination is done because REBT posits that our unhelpful thoughts suppress primary emotions such as fear, sadness, anger, and pain (Ellis, 2004). As noted in PP2.0, suppression of these thoughts can make growth and change difficult (Ivtzan et al., 2016). REBT helps clients identify their emotions, enabling them to explore their internal experiences, and subsequently address the thoughts associated with these emotions to bring about emotional transformation. Mental health issues are combated by demonstrating different coping strategies grounded in REBT.

REBT postulates that humans develop their understanding of what is good and bad in their world through engaging with and learning from their environment (Ellis, 1993). This fosters rigid beliefs about the way the world is, which can lead to unhelpful cognitive constructs. REBT engages with these unhelpful constructs to challenge the beliefs, and ultimately help people broaden their perspectives. REBT also emphasizes the importance of the broad spectrum of human experience including emotions, feelings, and behaviours, purporting that these facets of experience are intertwined and impact one another (Ellis, 1993).

Through psychoeducation in MHP programming or in therapy, REBT therapists or facilitators coach people to combat their rigid thoughts by examining their beliefs by identifying any cognitive distortions the person may have, experiencing the emotions stemming from said beliefs, and identifying the elicited behavioural response. Clients or students are also taught to identify their environmental triggers and, as their awareness increases, so do their thoughts and emotions, and behaviours change. Ultimately, these skills aid in self-regulation, which fosters healthier inter-personal connections and increased resilience (DeWall, Baumeister, & Vohs, 2009). Healthy thinking and insight promote healthier inter-personal connections, which ultimately leads to healthy relationships with others.

MMT Foundations: Attachment Theory

Attachment therapy (AT) was developed by John Bowlby (1978) who purported that a child's attachment with their mother was a strong predictor for how children would relate to others later in their life. AT is a therapeutic approach rooted in psychodynamic therapy suggesting that a secure attachment style can serve as an indicator that a child has a good foundation to interact freely with their surroundings, explore, have openness to new encounters, and establish connections with others. A strong predictor for good mental health is secure attachment. Secure attachment is characterized by a sense of security in relationships; when a person has secure attachment, they feel protected by their caregivers and have a sense that they belong in the world (Moore, 2021). Fostering secure attachment is vital for children facing challenges in social relationships as it boosts their self-confidence, leading to more authentic connections with others. Secure attachment enhances the ability to communicate emotional needs, including the expression and experience of empathy, contributing to improved emotional regulation (Armstrong, 2018; Lynch & Simpson, 2010).

A way to foster a secure attachment in children is through imaginative activities such as storytelling and play (Moore, 2021). Fairy tales, fables and stories have offered children the opportunity to explore feelings and behaviours through observation and imagination. When a child resonates with the experiences of an imaginary character, they begin the process of discovering their own emotions and reactions to experiences (Frude & Killick, 2011). As a child learns to explore their internal world of emotion, through story they can learn about and understand how another would feel, fostering empathy and ultimately secure attachment (Moore, 2021). In the same way, multi-sensory and imagination-based play gives children the opportunity to explore their emotions, thoughts, and behaviours (Gil, 2004; Lowenstein & Sprunk, 2010;

Moore, 2021). Play affords children the opportunity to observe other people's emotions, a chance to work together to follow game rules (whether explicit or implicit), and to co-experience joy (Land, 2018). Specifically, the collaborative nature of play fosters social skills which improve interpersonal connection and therefore one's attachment (CASEL, 2024).

Secure attachment can also be developed through social-emotional literacy (SEL). SEL describes the skills that foster relationships and inter-personal connection (CASEL, 2024). A person with good SEL possesses self-awareness of their own emotions, thoughts, and behaviours, as well as the capacity to control them. Additionally, SEL promotes attunement. Attunement describes the awareness and empathy one has for others. Attunement is developed through "perspective-taking". Perspective taking is the ability to put oneself in someone else's shoes and be able to imagine their unique experience (Gehlbach, 2017). When a person is empathically attuned to another, they react less when provoked, are less likely to stereotype others, and have a higher tolerance for relationships with others who have different perspectives than them (Gehlbach, 2017; Gehlbach et.al., 2015; Galinsky & Moskowitz, 2000; Richardson et. al., 1998). Ultimately, attunement leads to good communication, healthy conflict resolution, and cooperation. Empathic attunement with others (Cloutier, Manion, Walker & Johnson, 2002) is considered a core pathway to experiencing meaning in MMT.

MMT Foundations: Logotherapy

Logotherapy was developed by psychiatrist Viktor Frankl and is based on the premise that a person can make meaning out of all their experiences – whether positive or negative – through the choices they make (Frankl, 1986). Logotherapy posits that life has meaning within all circumstances, and that people possess the freedom and agency to find meaning in life, no matter the conditions (Saraswathi, 2013). People can make meaning of their life through

creativity, their experiences, the connections they make with others, and the perspectives that have on situations (Frankl, 1986).

There are three main therapeutic techniques used within logotherapy: 1) paradoxical intention, which requires a person to do exact the thing they are afraid to do 2) de-reflexion, which draws and person's attention away from their symptoms and core problem, and 3) Socratic dialogue, in which a person is guided through their unrealistic perceptions and attitudes in order to form a new outlook on their life (Saraswathi, 2013). Adults and children typically differ in the things that bring them meaning (Armstrong et al., 2019). Where adults usually perceive life as meaningful when they feel they are a part of something greater than themselves (Frankl, 1986), children tend to feel their lives are meaningful when they perceived their own self growth (Armstrong et al., 2019; Masten, 2001).

Frankl's Logotherapy (1986) theorises that meaning encompasses positive self-concept, sense of choice and responsibility, hope for the future, and openness to new experiences. When a person has a positive self-concept, they perceive they can take control over their thoughts, feelings, or behaviours, which fosters agency. When a person has hope for what is to come, they are able to see potential in future outcomes or goals, which can act as a motivation to make responsible choices and decisions. Finally, a person's openness can enrich their own life experience, from being open to oneself and their internal alarm bells, to openness to new activities or experiences (Armstrong et al., 2019; Armstrong 2016; Baumeister & Wilson, 1996; Frankl, 1986; VanderVen, 2008).

There are several approaches to finding meaning within Logotherapy's theoretical framework, which can promote resilience (Frankl, 1986): trying new things, serving others, and make an earnest effort to change attitudes and behaviours (Erikson, 1964; Markstrom &

Kalmanir, 2001; VanderVen, 2008). Following these approaches have shown to increase self-esteem, and increase optimism, which ultimately improves mental health (Erikson, 1964; Markstrom & Kalmanir, 2001; VanderVen, 2008; Frankl, 1986). Additionally, finding meaning in life and in experiences is linked to resilience, starting as early as in childhood (Masten & Reed, 2002; St. John, 2017).

The link between Rational Emotive Therapy and Logotherapy is clear: both posit that irrational beliefs can be the cause of mental health issues, and through discovery and re-assessment of our thoughts and attitudes, one can re-frame our perspectives (Hutchinson & Chapman, 2005), which helps people emerge from challenging times, and ultimately builds resilience to manage future challenges (Wong, 2017).

Meaning Mindset (MM)

As noted briefly previously, MMT (Armstrong & Potter, 2022; Armstrong & Potter, 2023) is a PP3.0 approach grounded on four main principles: 1) agency, 2) positive self-concept, 3) openness to experience, and 4) hope for the future. Embracing agency over our thoughts and behaviours means recognizing the power to choose attitudes and actions, thereby potentially influencing our feelings (Frankl, 1946/1986). Possessing a sense of agency refers to one's belief in their ability to control their own thoughts and actions, and how one feels they can handle the consequences (Moore, 2016). People can construct their own sense of agency, based on their perspectives and mentalizations of experiences (Moore, 2016). For example, there is evidence that one can prime their thoughts about upcoming events to foster a sense of agency over these events, which in turn can impact our emotions and behaviours (Wegner & Wheatley, 1999; Moore, 2016). Possessing a sense of agency also can impact how one develops a sense of responsibility (Frith, 2014; Haggard & Tsakiris, 2009). When people are held accountable for

their own behaviour, it cultivates a sense of connection between how one behaves and their perceived control over their experiences. Carol S. Dweck has found that nurturing a positive self-concept, rooted in growth mindset (2016) involves seeing oneself as valuable and capable of achievement through hard work, strategic effort, and seeking support when necessary. Dweck's research suggests that the way children and youth think about their own abilities, their intelligence, and who they are impacts their motivation and academic performance. When children and youth have a positive perspective of themselves, they are more likely to feel motivated to try things, to feel confident, and to achieve their goals. Cultivating openness to experience occurs through finding meaning in relationships and emotional connections, being creative, being curious, learning, intentionally appreciating awe-inspiring moments, and being mindfully present in daily life (e.g. with loved ones, in nature, or when practicing spirituality) (Frankl, 1946/1986; Shantall, 1989; Stoddard et. al., 2011). Finally, fostering hope for the future involves anticipating a positive outcome, driven by a sense of purpose and openness to what is possible, even during challenging circumstances (Frankl, 1946/1986; Stoddard et.al., 2011). This tenet posits that if a person has a 'why' to live today, they can bear existence (Nietzsche, 1889/2003).

The four tenets of MM theory can be cultivated in six ways, represented by the acronym C.H.A.N.G.E. (Armstrong & Potter, 2022, 2023):

1. *Challenge unhelpful thinking.* Foster critical thinking in children by helping them evaluate how accurate their thoughts are, encouraging them to look for evidence that supports their experience, and seeking additional information when needed (e.g. What is the likelihood of my fear happening?).

2. *Healthy actions.* Assist children and others in cultivating well-being by scheduling activities they enjoy, helping them set attainable goals, creating action plans, identifying triggers, and employing calming or problem-solving strategies in tricky situations.
3. *Acknowledge Circumstance.* Encourage a proactive mindset by exploring the idea that if circumstances cannot be changed, individuals can be empowered by changing themselves (Frankl, 1986). This includes fostering a "me to we" environment (e.g. is there a small thing I can do to make my situation better? What can I do to help other people and make their situation better?) (Armstrong & Potter, 2023).
4. *Need for belonging and compassion.* Emphasize the significance of relationships in shaping self-identity and cultivating meaning. Develop social literacy, including perspective-taking skills, and nurture self-compassion for a positive self-concept, confidence, and self-esteem.
5. *Gratitude.* Practicing gratitude even in the face of challenges can foster hope for the future (e.g. Although my day has been hard, what is something I appreciated?).
6. *Emotional Language.* Enhance emotional literacy in children and others by teaching them to acknowledge and validate feelings, recognizing them as either signals for action or potential indicators of a meaningful experience (e.g. what is happening in me right now? What do I notice? What is the feeling I have?)

Developing MM through CHANGE strategies is strongly associated with lower levels of mental illness and greater levels of wellbeing in children, youth, young adults, and adults (Frankl, 1986; St. John E., 2017; Wong, 2017; Armstrong et al., 2018).

Engaging Stakeholders in the Development of MH Tools: A Knowledge Translation-Integrated Approach

Concerning PP3.0 methodology, a KTI, or a Knowledge Translation-Integrated approach to program development is a collaborative method between program developers and the program users. Specifically, throughout the process of developing MHPs, the program users are involved, and their feedback is incorporated into the program model (Armstrong, 2009; Armstrong, 2018; Armstrong et al., 2018; Armstrong et al., 2019). The approach involves key decision-makers – MHP creators and MHP users—in the knowledge creation and action process; this helps to promote continued stakeholder participation and investment, which potentially leads to more effective results. By accurately reflecting the needs of those who will be using the program, KTI helps maximize the potential for the program to be both sufficiently helpful for users, and to meet scientific standards of a good mental health promotion activities such as a program or board game. Dr. Laura Armstrong developed the KTI methodology (2009; 2017; Armstrong et.al., 2019) by combining insights from the Joint Committee on Scientific standards for Education Evaluations (1994; 1981), Patton’s Utilization Focused model (1984), and Judd’s examination of scientific standards for assessing community-based program (2001). In addition, Armstrong integrated the definition of knowledge translation from the Canadian Institute of Human Research (CIHR) to align the research with the values established by Canadian funding agencies (2016). The KTI approach has been implemented and evaluated for the past decade for use in measure development, program development, and in co-creation of research protocols.

The Joint Committee on Standards for Educational Evaluations (1994) established accuracy, utility, feasibility, and property standards for program evaluation and development. Programs must be accurate, emphasizing the measurement and reporting methods as well as the

data analysis must reliably reflect the program research and results. Utility standards ensure that the program is beneficial to its stakeholders, by ensuring evaluator credibility, transparent interpretation, thorough and clear reporting, and disseminating results in a timely manner (Parrott, 2020). Feasibility standards consider how useful the resource is for stakeholders, how practical the research procedures are, and how well the program reflects diverse perspectives and opinions. Finally, property standards ensure the research is being conducted ethically, by collecting consent from participants, scrutinizing the intentions of the researchers, and addressing any conflicts of interest and behavior of the evaluators (Joint Committee on Standards for Educational Evaluations, 1994).

Patton's Utilization Focused model (1984) focused on the diverse perspective stakeholder offer in program development and implementation. The model treated the thoughts concerns of research participants as valuable sources of information, because ultimately the programs were for them. Patton pursues the intended purpose of the program, and it's actual outcomes by involving stakeholders in the research and development process (Patton, 2015).

Judd, Frankish, and Moulten (2001) introduced a model for community health promotion program evaluations, involving the stakeholders, funding agencies, and practitioners. The program emphasizes the promotion and maintenance of health and wellness, as opposed to the avoidance of illness. In addition to Patton's Utilization-Focused model (1997) and the Joint Committee on Standards for Educational Evaluation (1994), Judd et al.'s model of assessing health promotion programs incorporates elements of Glasgow et al.'s RE-AIM model (1999). The RE-AIM dimensions are reach (R), effectiveness (E), maintenance at both the stakeholder and staffing level (M), and implementation (I) (Glasgow et. al., 2019). Judd et al., integrates these models to empower both the researcher and stakeholders, allowing participating individuals

to control and compromise the process as they see fit (Judd et al., 2001). The results produced using these methods tend to be better balanced and eliminate bias (Parrott, 2020).

Finally, in 2000, CIHR included the gap between knowledge, research, and follow-on action in their definition of knowledge translation. CIHR posited that it was more efficient to include the stakeholders in the collection of research, and that it could make the results more accurate (CIHR, 2004; Graham et. al., 2006). Stakeholders were people who the research was for – they are anyone who would be using the research once it was completed. For example, in Armstrong’s et al., study on the DREAM program for gifted children (2018), the stakeholders are the gifted children who would be using the program at the end of the research trial. Gifted children, their parents, and teachers were, thus, engaged as co-creators in program development. At the heart of CIHR’s philosophy on knowledge translation is not only disseminating information to stakeholders in an ethically sound, thorough, and effective way, but also doing so in the best way for stakeholders, and in a way that meets their needs (CHIR, 2015).

Armstrong (2017) drew four core themes that build up the structure of the Knowledge Translation Integrated (KTI) method from Patton (1984), Joint Committee on Standards for Educational Evaluation (1994), Judd et. Al., (2001), and CIHR (2015): acceptability, credibility, feasibility, and sustainability. For program or resource development, acceptability describes the accuracy to which a MHP program or resource reflects the theories, values, and intentions of the researcher and stakeholders, and how well those things align with stakeholder needs (Judd et al., 2001; CHIR, 2015). Credibility assesses whether the MHP program can achieve what it was intended to (Trochim, Donnelly, & Arora, 2015). For a program to be feasible, it must be possible to implement using the time and resources available to stakeholders (Judd et al., 2001). Finally, the sustainability standards emphasize that the program must demonstrate that the

disseminated skills or information is useful long-term (Armstrong, 2017), as well as maintainable by stakeholders without the presence of researcher (Parrot, 2020; Lean & Colucci, 2013).

Armstrong's interdisciplinary Knowledge-Translation Integrated approach to program development and assessment (2017) acknowledges the groups, systems, and individuals the research is embedded in (Armstrong & Potter, 2023). Specifically, the DREAM program carefully considers its stakeholders, consisting of parents, children, and teachers. Amsden and VanWynsberghe (2005) suggest that children and adolescents especially need to be involved in program development, because the consequence is that the programs could fail to meet their needs if they're not involved (Commissioner for Children & Young People, 2016), and would not meet the sustainability criteria for the programs. Thus, it is especially imperative that the researcher engage and consults stakeholders in the development of the program.

Stakeholder Consultation

Integrated Knowledge Translation (iKT) is a process which refers to the inclusion of the knowledge-users, or stakeholders, in the research process to ensure research is relevant and will generate findings that are useful to stakeholders (CIHR, 2015; Cargo & Mercer, 2008).

Stakeholders refer to the people for whom the research is intended; stakeholders can be anyone from policy makers, to practitioners, or resource administrators/users (Kothari & Wathen, 2013). For example, in health care research, iKT may include health care workers, hospital management staff, or even patients (Straus, et. al., 2013). An underpinning concept for iKT is the "two-communities" theory (Kothari & Wathen, 2013; Caplan, 1979), which posits the there are two distinct communities in the research process: the researchers and knowledge users. The cultures between the communities typically have different goals, values, deadlines, and objectives

(Bowen et al., 2005), thus iKT serves as a bridge to link these gaps and ensure that research outcomes are serving the community for whom they are intended (Kothari & Wathen, 2013).

At the heart of KTI for resource and program development is consulting stakeholders during the process. At each step of program development, stakeholders and participants are invited to evaluate and give feedback to maximise potential for some of these programs, especially within communities and family systems. Specifically, the literature recommends facilitating consistent engagement through focus groups, interviews, or questionnaires, regular meeting, communicating clear responsibilities, and using accessible language (Camden, Shikako-Thomas, Nguyen, Graham, Thomas, Sprung, Russell, 2015). Mental health promotion programming has demonstrated effectiveness especially when it engages stakeholders such as teachers, administration, and students in its development (Camden et al., 2015).

Another important way to engage stakeholders is at the family level. Parents, guardians, and family members are just as important to consider when development mental health promotion program for children, because they are close to the child and aware of their needs (Morris et al., 2011). When approaching a child-related problem, such as mental health issues, it is important to examine the whole system within which a child lives. When the whole system is attended to – parents, teachers, school boards, etc. – there is a higher chance the child’s life will be positively impacted. Thus, when implementing a program in school, it is imperative to consult with both school boards and families about their ethics, and the needs of their students, staff, children, and caretakers. Particularly, school boards in Canada have indicated that they are deeply concerned about the wellbeing and mental health of their students (MHCC, 2012).

Board Games and Mental Health Promotion

There is a significant limitation to mental health promotion programs. Specifically, once MHPs are completed in schools, there are sparse resources for maintaining the resiliency skills learned in the program. For example, for the DREAM program, the professionally recorded music from the program, which will be streamed on Spotify, may provide some reminder cues for skills learned. Yet, school-based programming is best when it can be reinforced on an ongoing basis at home (Cooper, 1998). Given the dire need for MH education and support both in school and home, there is pressure to find an accessible solution that can be used ubiquitously – both at school, and in home, to maintain resiliency and MH literacy skills.

One promising way to maintain skills learned at in-school MH programs is through board games. Board games have been found to help kids learn about MH protective factors including positive coping, emotion regulation, interpersonal relationship and self-esteem-building strategies and skills (Guest et al., 2021; Kerr et al., 2020; Klingemann, 1995; Martinez, A., & Lasser, J., 2013; Wiener et al., 2011; Streng, 2009).

There are key reasons outlined in the literature as to why board games work as therapeutic tools for children and youth. The first is that board games are familiar and provide participants with a sense of safety; children have positive associations with board games and already understand their format (Streng, 2009). Typically, there is a start and an end to the game, there is a clear objective, and an element of fun and play for the participants. Since board game structures are familiar to children, children are more likely to be open when communicating during play (Wiener et al., 2011), which supports MM's value of openness to one another and to new experiences. In addition, in a safe environment, board games can empower children and youth to try out new ways of thinking and behaving (Kerr, 2020; Kennedy et al., 2017). When children are comfortable and can communicate and imagine through games, these skills can

transfer to real life and enhance mental illness and other issues (Armstrong, 2021). Finally, the hands-on, multisensory component of game play helps children express their thoughts and feelings (Gil, 2004; Lowenstein & Sprunk; 2010), and helps them practice skills, ultimately cultivating problem solving, openness to challenges, and learning new behaviours (Streng, 2009; Wiener et al., 2011).

The therapeutic power of the board game is play (Gil, 1994). Research has shown that group work is a useful mental health intervention strategy for children and youth, citing that group support is a significant therapeutic factor that impacts MH in children and youth (Streng, 2009). Additionally, play enhances relationships with others; this fosters attachment which is a component of MM theory (Bowlby, 1978; Armstrong, 2016). Playing in a group context is a powerful therapeutic tool, especially for families as they learn how to make meaningful connections between children and their primary caregivers (Armstrong, 2021; Malchiodi & Crenshaw, 2014; Creed & Kendall, 2005; Gil, 1994; Walter & Petr, 2006). Board games give families and participants an opportunity to communicate about scenarios and feelings that might not have otherwise come up (Streng, 2009; Wiener et al., 2011). Doing this as a family, via a hands-on, mutual learning experience fosters “mutual attunement” (Malchiodi, 2005; Malchiodi & Crenshaw, 2014), which is the process where two people begin to tune in to the other’s thoughts, feelings, and emotions, showing the other that they are paying attention to and are interested in each other (Jonathan & Knudson-Martin, 2012). This nurtures secure attachment, a strong predictor for good mental health (Creed & Kendall, 2005; Gil, 1994; Walter & Petr, 2006).

Evidence has shown that group-based board game play promotes mental health knowledge and positive coping strategies (Wiener, Battles, Mamalian, & Zadeh, 2011). For

example, Gilham et al. (2022) investigated whether a life skills resource called Know Before You Go (KBYG) could increase mental health literacy in Grade 12 students. The findings showed increased knowledge of mental health and preparedness for post-secondary education. Specially, the students perceived the board game to be beneficial and likely to recommend it to their peers (Gilham et al., 2022).

Kerr et al. conducted a study which explored the correlation between board games and enhancing a child's "narrative identity reconstruction" (p.1, 2020) and self-agency. The objective was to examine re-framing one's narrative and its relationship to their identity, and how narrative shapes self-mastery in children (2020). Kerr et al. theorized that, by taking responsibility for the characters one plays during a role-play-based board game, they are experiencing and practicing agency and self-mastery, which ultimately is practicing adapting one's narrative about their own identity. Kerr's findings showed that all participants, no matter the conditions or mental health diagnosis, displayed statistically significant improvement in their self-mastery and agency (2020). It appeared, through role-play and engaging with challenges that guided them towards their goal, participants actively experienced what it was like to have control and responsibility over life (even in a fantasy life), which bolsters the theory that interactive play such as board games facilitates agency, a strong contributor towards mental health and child development (Armstrong, 2021; Weiner, 2011).

While there is evidence that board games may contribute to improving MH, the literature warns they also create challenges. At times, games can be too complex which can affect the game's therapeutic outcome (Martinez & Lasser, 2013). Additionally, competitive games can disappoint or frustrate players; playing board games requires a child to have a certain level of emotional development (Oren, 2008). For example, players may need to be able to regulate their

own anxiety during games, especially when they are not winning. Also, one study speculates that MH board games are developed by clinicians themselves, and not researchers (Streng, 2009).

There is research about the board games designed for counselling, but often the studies' feedback is directed towards the counsellors (e.g. importance of being open and flexible enough to allow the child's creativity to emerge) (Martinez & Lasser, 2013) The field may benefit from research that examines the impact of therapeutic board games on their users, rather than their administrators.

However, board games and other play-based psychotherapeutic techniques show promise to Canada's MH problem, due to their availability. They are used in many situations including schools, homes, in the therapy room, and other settings, and can be used with clients of all ages (Martinez, & Lasser 2013; Schaefer & Drewes, 2010), which addresses one of the most significant issues of accessibility for MH care in rural and northern areas of Canada. Once a board game is tested and published, because of its ubiquitous nature, it can be easily distributed to any community within reach of a post office. Further, during the COVID-19 pandemic, many common board games were also adapted online. Thus, there are many possible ways that people could access family board games.

Current Study

The proposed mixed methods pilot study builds on previous research using a board game called "Moods Managed." Moods Managed is designed to teach MH literacy skills and was found to promote both mental health and MM (Armstrong, 2021). As noted, MM involves agency over thoughts and feelings, hope for the future, positive self-concept, and openness to experience (Armstrong et al., 2019). Teaching MH literacy skills enhances MM (Armstrong & Potter, 2022), and participants noted they learned healthy thinking, behavioural, attachment-

based, and meaning-centred strategies while playing the game, and reported that they incorporated these skills into their lives (Armstrong, 2021). However, it was suggested by participants that the game should be adapted to better meet the needs of at-risk children, meet the needs of adolescents, and incorporate more feelings (Armstrong, 2021).

Rural youth were not engaged in collaborative development of Moods Managed; thus, it is unknown whether the game is a good fit for rural populations. Further, one gap in the DREAM program noted previously was that there were no reinforcement activities, beyond potential program music listening, to implement after the program ends to remind young people of skills learned longitudinally, nor are there at-home activities beyond an informational package for parents to reinforce what was learned in the classroom. Thus, the current study used a Knowledge Translation-Integrated (KTI; Armstrong et al., 2019) approach to collaborate with rural children and youth in adapting the game to be a better fit for them. Further, the skills and feelings taught in the DREAM program were also integrated into the board game, adapting Moods Managed so that it can be later tested as a potential reinforcement activity for the DREAM program.

Research Questions & Hypothesis

In this study, the researchers followed a PP3.0 MMT framework in the ongoing development of Moods Managed, like for the DREAM program. Further, to directly align Moods Managed with DREAM content, the first qualitative research question was:

- 1) In what ways does Moods Managed directly follow DREAM skills taught and where are the current gaps (e.g., type of feelings taught by Moods Managed versus DREAM; skills that are taught by DREAM that may not be covered by Moods Managed)?

In addition to mapping Moods Managed directly onto DREAM, KTI research questions should ultimately serve to determine if Moods Managed is credible, acceptable, sustainable, and feasible for rural families. Specifically:

- 2) Is Moods Managed perceived by rural families as credible: Does it appear to do what it purports to do, namely, enhance mental health and MM (i.e., the families believe the game has face validity to meet the mental health needs of rural children and adolescents. Further, families perceive the game appears to teach skills to enhance mental health and MM);
- 3) Is the game perceived as acceptable (i.e., rural families perceive that the game adequately addresses mental health needs and view it as fun);
- 4) Are the skills taught by Moods Managed sustainable (i.e., the MH skills learned were used in daily life beyond the game).
- 5) Is the game perceived by families as feasible (i.e., the game is easy to implement, with understandable rules and appropriate game length for regular use).

These questions were assessed qualitatively through family interviews and quantitatively through post-play survey methodology, and findings were used to refine the game. Regarding findings, given past favourable pilot results with an urban sample (Armstrong, 2021), it was hypothesized that the board game would similarly be perceived by rural families map onto the skills taught by DREAM, aiming at fostering mental health and MM.

METHODOLOGY

Participants

This study took place in rural Ontario counties, specifically Lanark County and North Glengarry. Lanark County is a rural community with a population of 75,000 people, where a

significant portion of the county is farming community (Statistics Canada, 2021b). Specifically, the Beckwith township where the families were largely recruited from, has 7,644 residents (Statistics Canada, 2021b), where 1,285 of those residents are under 15 years old. North Glengarry is an even smaller rural community consisting of 10,144 people, where nearly 15% are children and teens under the age of 15 (Statistics Canada, 2021a). Residents of both counties are mostly ethnically white. Residents in both counties have a lower income than the national average in Canada of \$68,400 (Statistics Canada, 2023), where the total median income in Lanark County is \$44,000 and North Glengarry is \$35,200 (Statistics Canada 2021b; Statistics Canada, 2021a).

Five families with children between the ages of six and 16 and their caregivers were recruited using convenience sampling, with a sample size of 19 participants. Seven participants identified as male, and 13 as female. Braun & Clarke (2013; Vasileiou et al., 2016) recommend having a minimum sample size of 12 for a qualitative study, therefore the present study's sample size of 19 is projected to yield a sufficient dataset. Although this is a mixed methods study, its primary purpose was collaborative game development with rural families. Thus, quantitative findings are secondary to qualitative findings, and are more satisfaction-based or perception-based than those using formal measures. This research, involving game development and refinement, is a precursor to more extensive follow-on quantitative research.

Consent

Consent to participate in the research project was implicitly obtained at the stage of recruitment when the researcher invited the families to play the game, and they accepted. In addition, the participants were informed via text message and word of mouth that they were allowed to withdraw from the project at any time. Finally, during the qualitative interview stage,

the caregiver participants gave informed consent to participate and be recorded. The researcher reminded them they could withdraw any time and informed them the data would be deleted immediately after transcribing.

Procedure

Initially, the game was created to map onto Meaning Mindset (MM) theory, which is also the framework that the DREAM program uses. Over 50 parents and children wrote down more than 250 tricky situations that they regularly experience, while 40 psychotherapy student trainees wrote coping strategies that aligned with the MM framework. Family stakeholders and mental health practitioners were further consulted in the process of reviewing the tricky situations and coping strategy cards to ensure the content and themes were meeting the needs of the intended audience (children and families). After Moods Managed was created, a group of undergraduate students played the game with urban families and children between the ages of 6 to 12 and collected initial qualitative feedback.

In the current study, no compensation was offered to participants; however, the researcher brought each family unit a snack, which the researcher and participants ate together while the researcher relayed the rules of the game to the group. The researcher read the instructions and offered the rules sheet to the individuals who wanted to read it. Additional verbal instructions were given. The family played the board game, either with the researcher, or by themselves.

Moods Managed, a fantasy-themed feelings game that sought to promote the same goals and values as the MHP program DREAM. The game took its players to a magical land where they find themselves appointed as the royal kingdom's "feelings advisors." The feelings advisors were equipped with coping "tools" (e.g. deep breathing, doing a craft, helping a friend). Each

round has a messenger, who delivered a feelings-based dilemma to the feelings advisors (participants). Based on the scenario presented, it was up to the advisors to decide which coping “tool” would best manage the mood exhibited in the scenario. Players collected points and were ultimately trying to return “home” to the real world, where they can bring and use their coping tools as needed.

Each player was dealt five “coping cards” containing skills, tips, or tricks (e.g. “Take a deep belly breath”, or “talk to a counsellor”, or “Look at nature”) to help the subject deal with their tricky situation (e.g. “the prince is being left out at school because his friends think he is different when he is royal”). Each player took turns being the messenger, who facilitated the round. The player read the tricky situation out loud, and as a group the players discussed and chose from three options (sad, scared, or angry) how the subject of the tricky situation might be feeling. The player flicked the emotion button onto the board, attempting to land in either the 10-point or 5-point sections of the board. Each player handed a coping card they felt was relevant to the messenger, who proceeded to read each card out loud. Together, the players discussed and decided which submitted coping card would best attend to the tricky situation. If the group could not agree on whose card was best, the messenger that round made the final decision. Whoever submitted the chosen card had a chance to shoot their personal token at the emotion button on the board and gain points. This continued until the players decided to stop (2 or 3 rounds).

There were two ways to win the game: add up the total amount of points that each player had at the end of the game. The player with the most points won! Alternatively, the messenger could have won if they shoot an emotion button onto the board; if there are enough of the same feelings buttons on the board totalling to more than thirty points, the messenger would have won the game. Once the game play was completed, each participant – children and caregivers – were

given a satisfaction survey that asked for feedback, and asked questions designed to measure acceptability, credibility, feasibility, and sustainability. The surveys were conducted anonymously. The researcher then sat down with the participating caregivers and introduced the underlying theories and principles the game is intended to reflect, including MM from REAL (Rational-Emotive Therapy, Attachment Theory, and Logotherapy). The researcher also described the units of the DREAM program, and the skills, attitudes, and perspectives it is designed to develop. From there, the researcher conducted a recorded qualitative interview with the caregivers, expanding on the questions from the satisfaction survey. The interview was recorded via the “voice memos” app on the researcher’s personal iPhone and then transcribed verbatim. The researcher then deleted all the files from their recording device. All participants were given the opportunity to write down suggestions for improvement or offer verbal feedback they had on the game. Once the data collection was complete, the researcher and a second reviewer adapted the game to satisfy the feedback received from the participants.

Measures

Two measures were used to collect data for this project. The participants were given a 9-question Satisfaction Survey (APPENDIX A) using a 5-point satisfaction scale designed to measure whether the participants perceived the board game as acceptable, credible, sustainable, and feasible:

Figure 2.

Satisfaction Survey Scale



(Armstrong, 2018)

5= Totally

4= Quite a bit

3= So-so

2=Not really

1= Not at all

The second measure was an interview with the caregivers, the questions expanding on the items measured in the satisfaction survey (acceptability, credibility, feasibility, and sustainability). Specifically:

- *Acceptability*. Do you think that this game accurately reflects the ideas from MM? Based on what you know of MM and the DREAM program, can you see the link between what those theories are trying to foster, and how the game is designed? In what ways?
- *Credibility*. Based on the values, principles, and theories that build up the DREAM program, do you think this game is fosters MM? For example, agency, positive self-concept, openness to your own feelings, and to other's feelings? Did you think the game taught you and your kids about the things that make up MM?

- *Sustainability*. Are the skills being taught in the game useful long-term, and do you think the children would use them in the future? i.e. the activities on the cards? Do you feel like you have the resources to use some of the skills the game promotes?
- *Feasibility*. Do you think this game is a useful resource for families? In what ways? Would you choose to play it if it was available to you?
- *General*. Was playing the game an enjoyable experience for your children and for you? What did you like or dislike?

Data Analysis

The data transcription was done by listening to the recorded interviews through headphones in a private setting. The data was made anonymous by omitting all names, ages, or references to gender of all participants. Once the conversation was transcribed, the researcher deleted the audio files from the recording device. All transcribed data is kept on a secure, password protected laptop computer.

Theoretical Framework

Clarke & Braun's (2015) thematic analysis is a qualitative research method used to identify, analyze, and report patterns and themes within a qualitative data set. This systematic method offers a flexible yet reliable approach to uncover the underlying meaning within textual data. Braun and Clarke's thematic analysis contains six phases:

1. *Become familiar with the data*. Researchers gain a comprehensive understanding of data by immersing themselves in the dataset via reading and re-reading.
2. *Generate the initial codes*. Researcher systematically codes notable patterns or features within the data set. The subsequent development of themes is built by these encoded patterns of meaning. The coding is informed not only by the predetermined

theories used in the research (i.e. MM, REAL therapy, etc.), but also any other themes the researcher predicts may emerge.

3. *Search for themes.* The researcher organizes codes into potential themes by identifying what appears to be important. Themes are patterns of meaning that capture something significant within the data in relation to the research question.
4. *Review themes.* Researchers refine and re-examine the themes developed in the previous steps to ensure accuracy. This involves reading through the identified themes and encoded information and reflecting on whether the data really does support them. Maguire & Delahunt (2017) recommended the following questions to ask:
 - Do the themes make sense?
 - Does the data support the themes?
 - Am I trying to fit too much into a theme?
 - If themes overlap, are they really separate themes?
 - Are there themes within themes (subthemes)?
 - Are there other themes within the data?
5. *Define themes.* The final step of Braun & Clarke's thematic analysis is to '...identify the 'essence' of what each theme is about.' (2006, p.92). This step involves crafting concise descriptions for each theme and should communicate the underlying meaning of the themes and patterns.
6. *Write-up.* Disseminate data, themes, and analysis into an article, dissertation, or report.

Clarke and Braun's thematic analysis (2015) ensures researchers maintain rigorous data collection and reflection, while affording the researchers flexibility and opportunity to be reflexive if required. This fits well with KTI. Within KTI categories acceptability, credibility, sustainability, and feasibility, further themes organically emerge using Braun and Clarke's method. In this study, the researcher listened to the recordings and transcribed the interviews. Once the data was deleted from the phone, the researcher read the data and reflected on themes that emerged from the KTI categories. This was done by asking the questions: "Are there consistencies between participants' feedback? What is the essence of this feedback? Several participants made the same comment about the game – what are they asking for from the researcher?". The researcher encoded the feedback into data. This project had three raters to minimize potential bias: the first research encoded the data, and a second researcher read the data and added their own reflections. After discussion, adjustments, and confirmation that the themes were accurate, the raters reached 100% agreement. The report was written, and both researchers and an additional inter-rater reviewed the report before submission.

RESULTS

Qualitative Analysis: Thematic Analysis

Using Clarke & Braun's thematic analysis (2015), the qualitative data collected via interview with the participating families were identified and coded by three knowledge users.

Three main themes emerged: validations, suggestions for improvement, and critiques.

Validations are the elements of the board game the families feel are adequately working for the game, as well as whether the participants believed the game elements mapped onto the DREAM program. *Suggestions for improvement* are the elements of the board game the participants believe could help the board game better achieve its goals of mapping onto the DREAM

program, be a better fit for rural families, or to make the game play better. *Critiques* are the elements that the participants perceive are not meeting the needs of the families, are failing to map onto the DREAM program, are not cohesive during gameplay, or are simply interesting suggestions for improvement.

Each of these themes were further organized into sub-categories following the KTI model categories: acceptability, credibility, feasibility, and sustainability. The data was organized by the lead researcher, acting supervisor/psychologist, and a third data analyser (teacher/researcher) to minimize potential bias.

Acceptability refers to the degree to which the participant can see the links between the game play and the theory it is designed to reflect. If the participant believes the game accurately reflects the DREAM program and MM, the game then would be acceptable. *Credibility* refers to the participant's perception of whether the board game is doing what it has been designed to do (i.e. map onto the DREAM program, foster MM). While the participant may see the link between the theory and the game design (acceptability), the game may not achieve its goal of fostering MM and mapping on to the DREAM program. *Feasibility* signifies how possible or manageable playing the game is for participants. While participants may perceive the game as acceptable and credible, they may not feel they have the resources available to play the game. *Sustainability* refers to whether the family is likely to use the board game in their own homes.

Each theme and category were organized into sections relating to the board game acceptability, sustainability, feasibility, sustainability, and general game play.

Acceptability

The following data were coded and quoted either from answers collected in response to a direct question or were found to be relevant to questions concerning acceptability. Parents were

asked: “Do you think that this game accurately reflects the ideas from MM? Based on what you know of MM and the DREAM program, can you see the link between what those theories are trying to foster, and how the game is designed? In what ways?”

Generally, the game was perceived as acceptable, where most participants were able to see the connection between the theories the game is meant to reflect, and the way the game was designed. The connection between the logotherapy components of MM, aside from attitudinal change (healthy thinking), were not perceived by participants, however there were no recommendations given by the participants concerning acceptability in this area.

Validations.

- Parent (P) 1: *“I can see agency is reflected in the game for sure, ... [there is the idea] that you’re not a victim to your own emotions and that there may actually be a response that is best, or responses that aren’t so good.”*
- P2: *“I see the connection between thoughts, emotions, and how kids can be taught to have control over what they think and feel. Also, I see the link about attachment. I think that it helps kids be empathetic to others and see and hear or sense what others feel”.*
- P2: *“The coping cards reflect on the values that the game is trying to teach kids... it is good to self-regulate, it is okay to experiencing your emotions, etc.”*

Recommendations. There were no recommendations from project participants concerning acceptability.

Credibility

The following data were coded and quoted either from answers collected in response to a direct question or were found to be relevant to questions concerning credibility. Participants were

asked by the researcher: “Do you think that this game is fostering MM? For example, agency, positive self-concept, openness to your own feelings, and to other’s feelings? Did you think the game taught you and your kids about the things that make up MM?”

Generally, parent participants believed the game can do what it is meant to do (foster MM). However, many participants pointed out that this would only be the case if the game was played multiple times over an extended period. In addition, there is a component of the game play itself that could potentially impact the credibility of Moods Managed; participants are limited to 5 solution cards in their hand, and many times the solution cards played are not sufficiently helpful for the tricky situation at hand. Participants also recommended there be more emotion icons to choose from, which would further foster the game players’ MM.

Validations.

- P4: *“My kids were showing that they understood what the characters were feeling, and [that they knew] what their cards meant.”*
- P5: *“The game helps the children learn about how to express their emotions, for example if you lose your mouse, you can identify that you are feeling sad and then take a moment to think about what you need.”*
- P5: *“[The game helps] them to express what they think and feel, but the game is also allowing them to listen to each other or imagine how someone else might feel or what could make them feel better.”*

Critiques.

- P3: *“In order to implement what you’re trying to do then you would have to play the game every day for five months to be able to say ‘yes, the game has influenced my children’s mind’.”*

- P2: *“I think that we would have to play it three times – or so many times- per week for the game to make a difference in the kids.”*
- P2: *“We would need repeated opportunity to learn or go through all the cards, because there were a lot of cards. But today we played a few rounds, and that was enough for one sitting.”*
- P1: *“Sometimes the cards don’t [reflect what the best solution would be for the given scenario]. For example, if you lost your mouse, [you should] let yourself feel the feeling in your body, not necessarily colour in a drawing... on one hand yes you want to help kids cope with their emotions and move forward, but at the same time you don’t want to pretend or rush through your feelings.”*

Recommendations.

- P2: *“I think that having only three emotions doesn’t let them explore the scenario in a really meaningful way, which would help better instill the ideas you’re trying to teach.”*

Feasibility

The following data were coded and quoted either from answers collected in response to a direct question or were found to be relevant to questions concerning feasibility. The researcher asked the participants: “Do you feel you have the resources as a family to play this game? Do you have the resources to use the skills being taught in the game?”

Each family agreed they believe they have the resources to play the game, however, were not convinced that the game was possible to use without the presence of an engaged parent or mental health professional present. However, the game was intended to be carried out as a whole

family and not just with children alone. In addition, participants perceived that this game is only credible if used repeatedly, and this may not be feasible given the time commitment that could take. One participant suggested that Moods Managed would be best used as an app or computer game – their perception is that apps and online game are more popular in families now, and it would be more accessible through that platform for families.

Validations.

- P4: *“We definitely have the resources as a family to play this game... [as parents], we are interested in doing these kinds of activities with our kids, and we enjoy playing board games.”*

Critiques.

- P2: *“I feel [the game does not work for] kids sitting by themselves. [It seems that in order for] the goals [to] be accomplished, [the game needs to have] parents or a counsellor there who are engaged to think in that way to steer their kids along in conversation.”*
- P3: *“The only constraint I can see for playing this game is time. Because I think the game needs to be played many times, maybe not every family has the time it would take for them to learn [MM].”*

Recommendations.

- P4: *“I think that generally, board games aren’t as popular as electronic games or something and I wonder if it could be a good idea to consolidate the game into an app.”*

Sustainability

The following data were coded and quoted either from answers collected in response to a direct question or were found to be relevant to questions concerning feasibility. The participants were asked: “Are the skills being taught in the game useful long-term, and do you think the children would use them in the future? i.e. the activities on the cards?”

All participants reported they believed the skills being taught in the game are useful, however not all participants said they would choose to play the game if given the chance. There are other mental health board games available to families, and participants for this project would not necessarily choose Moods Managed over other games. It was recommended that the board game would be best suited for schools or therapy settings, rather than exclusively for families.

Validations

- P1: *“I think my kids would actually use some of the [coping tools] in the game when they’re upset or feeling angry or something, for example taking a deep breath can help with that.”*
- P2: *“I think the skills in the game are useful especially because every time a new player starts, they all have to stop and re-engage in the “ok, wait, how does this person feel?” You have to put yourself in other people’s mindset which is definitely a good thing.”*
- P3: *“We would play this game at home. The skills are useful long-term. This is more engaging than books or some of the resources we use in our home.”*
- P4: *“Yes, we would play. I am [thrilled] for the kinds of conversations this would generate for our family.”*

Critiques.

- P1: *“I don’t think we would choose to play this game over any other mental health or emotional awareness board games. I have four [at home already], so I don’t necessarily think we would choose to play it over the rest.”*
- P3: *“I would not really play this with my kids, except for [my child who] has down syndrome... I think the game would be really useful for [them], but I don’t think that every kid would find it as useful as [they] do”.*

Recommendations

- P1: *“[The board game] would be better to play in schools. The game feels quite educational, so maybe it would make better sense in a school setting.”*
- P4: *“I wonder if this game is a better fit for families in therapy. For example, if a family went to their therapist and said they were feeling like [they] lost connections with each other ... this game would be a great resource to help [people] come back together and learn about one another’s feelings.”*

General game-play feedback

The following data were coded and quoted either from answers collected in response to a direct question or were found to be relevant to questions concerning general game play, rules, etc. Participants were given the opportunity to share feedback concerning general game play feedback, including the flow of the game, aesthetics, themes, and activities.

Validations. Families enjoyed the fantasy theme, and the tactile component of flicking tokens, and the opportunity to have meaningful discussions as a family.

- P3: *“I actually really like the fantasy magical thing, like if the cards talked about friends from school it would feel very... scholar? I think the magical characters bring you into the fantasy world and my kids like that.”*

Critiques. It was noted by many families that the game has an issue with bias – because children know that they can flick an emotion token if their card is selected, they tended to advocate for their own token during discussion, regardless of whether it was best suited to deal with the tricky situation. Additionally, the rule about the messenger winning the game by taking over the kingdom was confusing. Finally, one family had trouble with the game pace – the discussion slowed the pace of the game down, and one child participant with Attention Deficit Hyperactivity Disorder (ADHD) had trouble staying engaged.

- P2: *“I [did not] understand the part about taking over the Kingdom... the way of winning for the messenger.”*
- P4: *“There was an issue with bias ... [the kids] were choosing their own answers so that they could shoot their own tokens, which impacted the integrity of the conversations we were having.”*
- P5: *“I think that because my kids have ADHD it needs to be a little more fast paced or something, like they want to shoot the tokens more than they want to discuss.”*

Recommendations. One family participant came from a predominantly French area of Ontario, and their children were not able to play the board game without translation help from

the researcher and parent participants. It was recommended that the game is made available in both of Canada's official languages, English and French. Also, to minimize bias, some families recommended that the game be made more cooperative. It was also suggested that some of the situations be made more realistic. There were a few print issues, and participants had feedback on this. Some of the tricky situations or solution cards were worded in a convoluted way or were too long for children within the intended age to read.

- P3: *“My children speak French and Russian ... I think it would have to be translated into French or something if they were going to choose to play it without [parents who can interpret the game for them].”*
- P4: *“I wonder if there is a way to make it more cooperative, maybe if you weren't competing together then maybe their answers would be less biased.”*
- P4: *“Some of the cards were tough to read for my 7-year-old. I think some of the cards need to be edited to be shorter or clearer.”*
- P5: *“I think it could be better if the situations were more real, so it could help with real life situations.”*

Satisfaction surveys

The following data were coded and quoted from the qualitative answers collected in response to the direct question: “What did you like about the game? Do you have any suggestions to make it better?”. The answers were encoded into different categories including design, enjoyment of play, target audience, and skills development.

Validations. The participants generally found the visuals, the tactile nature of the game play, and the mission of the game acceptable. The game was perceived as feasible for families to

play: each member had a turn being the “reader,” and families reported the game play gave parents and children an opportunity to talk about emotions and other mental health related issues. The credibility of the program was validated in many ways; families reported that by playing the game, their children were given the opportunity to practice skills that map onto the DREAM program through thinking about how other feel (practicing empathy), talking about feelings and emotions, through talking and thinking through tricky situations, and practicing agency through deciding what tactic to use to solve the problems. Sustainability wise, participants reported the game was fun and interesting to play, the situations were relatable to everyday life, and the children would use the skills being taught in the game.

Acceptability

- *“I like the purpose of the game.”*
- *“The tactile wooden tokens, the pretty and bright design.”*
- *“I like how you guys re-used a pizza box!”*
- *“It was fun shooting the tokens.”*
- *“Magical characters and situations were fun.”*
- *“Like characters and subjects (magical world).”*
- *“I like the subject of the game.”*
- *“[I like] everything.”*
- *“My brothers really enjoyed it and it was fun to play with the group.”*
- *“I think the concept is great.”*

Feasibility

- *“I liked that everyone had a turn to make the final decision.”*
- *“Loved talking about feelings as a family.”*

- *“I really liked the opportunity to talk about feeling scenarios w/ my kids.”*

Credibility

- *“Like that the game shows how to use our emotions.”*
- *“I like how it gets kids to think and work through how someone else feels in a situation (empathy) and what they could do to make it better in each situation.”*
- *“I like how there is talking and problem solving in the game.”*

Sustainability

- *“The game was interactive and kept it interesting.”*
- *“Perfect for our 8-year-old to think about how he would react.”*
- *“The [tricky situations] were relatable, and the solutions were insightful.”*

Critiques. Participants shared that the rough design of the game (cardboard box, typos on some of the cards) was distracting and needed some development to improve the acceptability of the game. Additionally, the number of cards and options was overwhelming, which impacted the participants perception of the game’s feasibility. The families also reported that the game was not feasible for teenagers to play, and the game is not designed in a way that can be adjusted to meet the needs of teens.

Acceptability

- *“Design needs improvement. The graphics are a bit rough.”*
- *“To make it better you should fix the typos in the cards.”*

Feasibility

- *“I don’t like that there is so many cards, because there are too many options.”*
- *“I do not think it is super good for teens...I don’t really think the game can be changed to suit teens.”*

Recommendations. Participants recommended that there be more choices for people to draw from when choosing a solution to a tricky situation. Adding more emotions and explanations of the emotions would also improve the game’s acceptability. It was recommended that some of the game cards be re-written more succinctly and written more accessibly so that children could understand. Additionally, it was identified that there is a problem with bias in the game – children are choosing their own cards and not necessarily considering the best option – which impacts credibility. It was recommended that the rules be adjusted to eliminate this bias.

Acceptability

- *“Wondering if there is a way to have more choices for what to do i.e. have more choices and therefore more tokens on the board.”*
- *“I think the game should add: pictures of the emotions and explanations of the basic emotions”*

Feasibility

- *“I think the situations and solutions could be flushed out, simplified & edited to be easier for kids to follow.”*

Credibility

- *“It would be nice if there was a way to make them honestly decide what the best options is instead of just thinking about their own one (bias).”*

- *“Make it more cooperative so kids aren’t just going for the win but assessing what answer they truly think is the best answer/solution.”*

Quantitative Analysis: Credibility of Moods Managed

Participants were given a satisfaction survey that collected data which measures board whether the board game Moods Managed maps on to the DREAM program’s goals. The 5-point satisfaction survey collected data on 9 variables: general game enjoyment (playability, graphics, etc.), perceived impact on healthy thinking, perceived impact on healthy behaviour, perceived impact on player’s self-esteem, perceived impact on player’s hope for the future, perceived impact on feelings expression and literacy, development of skills used, fun with family, and conversations with family. With a sample size of 18 participants, data was analyzed and organized into their respective measures of central tendency. Scores of 1 corresponded to Not at all, 2 to Not really, 3 to So-so, 4 to Quite a bit, and 5 to Totally.

The range of answers scored between 1 and 4, where 1 correlates with a small disparity in answers between participants (most participants answered the same way), 2 and 3 indicate a moderate disparity in answers between participants (where some answered one way, and the others answered differently), and 4 indicates a large disparity between answers in between participants (most participants answered differently).

Enjoyment. Participants ranked board game enjoyability between 3 and 5 (range = 2), indicating a moderate difference in answers for this category. The mean score in this category was 4.23, indicating that participants perceived the game as enjoyable (corresponding primarily to the category: Quite a bit).

Thinking. Participants ranked the board game’s perceived impact on their thinking, where the lowest score was 3 and the highest a 5 (range = 2), which indicates a moderate

difference in answers for this category. The mean score for this category was 4.1, indicating that participants perceived the board game as having a high impact on player's way of thinking (Quite a bit).

Behaviour. Participants ranked the board game's impact on their behaviour between 2 and 5 (range = 3), which indicates a moderate difference in answers for this category. The mean score was 3.72. This indicates that while participants perceived the game is mostly helpful for promoting healthy behaviour (closest to Quite a bit).

Self Esteem. Participants ranked the board game's ability to promote self-esteem between 1 and 5 (range = 4), indicating a large difference in answers for this category. The mean score was 3.67, indicating that participants perceived the game as mostly helpful for promoting self-esteem (closest to Quite a bit).

Hope for the future. Participants ranked the board game's perceived ability to foster hope for the future between 1 and 5 (range = 4), which indicates a larger difference in answers for this category. The mean was 3.3, indicating that participants perceived the game as mostly helpful for promoting hope for the future (corresponding to So-so).

Feelings literacy. Participants ranked the board game's ability to foster feelings literacy (speaking about and expressing emotions) between 1 and 5 (range = 4), indicating a larger difference in answers for this category. The mean for this category was 4.11, indicating the participants perceive the game having a high potential impact on feelings literacy (corresponding to Quite a bit).

Skills development. Scores for development of useful skills to cope with tricky situations scored between 3 and 5 (range = 2), which indicates a moderate difference in answers

for this category. The mean for this category is 4.1, indicating the participants perceive the game as having a high impact on skills development (corresponding to Quite a bit).

Fun with family. Participants ranked how fun the game was to play as a family between 4 and 5 (range = 1), which indicates a small difference in answers for this category. The mean score for this category was 4.78, indicating that participants perceived this game as a highly fun activity to play as a family (corresponding to Totally).

Conversations with family. Participants ranked how much the game sparked meaningful conversations within the family between 1 and 5 (range = 4), which indicates a large difference in answers for this category. The mean for this category was 3.67, indicating the participants perceived the game was mostly good at fostering meaningful conversations between families (corresponding most closely to Quite a bit).

Results. The mean score of all answers for the game was 3.96 (corresponding closest to Quite a bit). Most of the questions inquired about the participant's perceived credibility and acceptability of the game. These results indicate that the project participants perceived the game as mostly credible and acceptable.

DISCUSSION

The current study on the mental health board game Moods Managed was designed to map on to the DREAM program, a mental health (MH) promotion program developed to educate children and improve their mental health and MH literacy. Specifically, in the study, the researcher sought to find whether the board game appears to reflect and teach the players the same skills taught by DREAM. Additionally, the researcher sought to find the degree to which the board game reflects the KTI methodology (i.e. feasibility, credibility, sustainability, and acceptability). Stakeholders offered their criticisms, validations, and recommendations for improvement in each KTI section. Participants were also asked about the game rules, aesthetics, and overall satisfaction, and what should be kept or improved for future studies. Standard deviation variables mean, and range were calculated to understand how much the families enjoyed the game and perceived it to map onto DREAM, and how disparate participants' answers were from one another. Overall, families supported the game and perceived it as a useful tool that accurately reflected DREAM.

Key Findings

Acceptability

The theme acceptability refers to the degree to which a stakeholder sees the links between the board game play and the theories it is designed to reflect. Specifically, acceptability describes whether stakeholders perceive the game as satisfactory. Moods Managed was intended to reflect core concepts found from the DREAM Program, mapping onto (MM) theory.

After learning about DREAM, the theories that bolster the program, and playing the game with the researcher and their children, most of the parent/guardian stakeholders reported that the

game was appealing to them, and they were generally able to identify key components of Meaning Mindset (MM) theory (formerly called REAL – Rational Emotive Attachment Logotherapy): Agency over thoughts and behaviours; openness to one’s own and other’s feelings, as well as to learning and new experiences; positive self-concept; and hope for the future. Parents noticed that the game appears to enhance agency over thoughts and behaviours. Specifically, parents recognized the idea from the game that one can examine their thoughts, emotions, and behaviours. They further noticed that the game helps players notice and talk about their feelings, and how to notice how others may feel. These skills were perceived to be taught in the game through enhancing Social-Emotional Literacy (SEL), which contributes to the development of healthy attachment to peers and parents. This reflects that the participants were able to make connections between MM Theory’s attachment component and the design of the game. Finally, parent participants observed that the game may enhance positive self-concept to reach goals through teaching helpful strategies and, thus, enhance hope for the future. Specifically, parents noted that the game reflects the idea that people are not victims to their emotions; in seeing that one is not victims to their emotions, they must see they have agency and a sense of choice in how to move through difficult experiences. These concepts also contribute to meaning making. Thus, in examining the qualitative data from the interview it is found that participants perceive the game as acceptably reflecting the core theoretical framework upon which DREAM was founded.

Credibility

This theme refers to the client’s perception of the game doing what it has been designed to do. In essence, credibility refers to the degree to which the participants perceive that the board

game is achieving its intended goals, which are to promote MM and to teach players skills that contribute to better mental health.

Many parents reported that their children were demonstrating empathy by showing they understood what the characters in the game could be feeling. Parents also observed that their children were identifying feelings, and thinking about what they could do to help another person with their feelings, or even how to manage their feelings. This feedback signifies there are core parts of the game that are perceived as credible: players can learn and use the skills to reflect some of the concepts that are found in MM Theory. Additionally, there were some issues with the game play that the parents perceived could block the efficacy of the game. Specifically, because players have a limited amount of solution cards in their hands, the solutions do not always best attend to the tricky situation at hand. The players may suggest something unhelpful for the tricky situation, and win a point for it, which could diminish the impact that an *accurate* solution could have on the players' learning. This could lessen how able the game is to teach players the most appropriate responses to challenges, which ultimately may impact how credible the game is. Some families suggested making the game more collaborative (i.e. the players against the bad guy in the game) to reduce this bias, thus potentially increasing credibility. Some families suggested that the game needed more emotions than what was offered on the tokens – there were three emotions used in the game (sadness, anger, fear). Adding emotions (e.g., perhaps adding all of the emotions addressed in the DREAM program) would contribute to the game's credibility by helping kids not only to think about a few emotions, but about a variety of more specific emotions. Adding emotions would also potentially help children distinguish the difference between emotions that may have experiences that overlap with one another, which

could increase their emotion literacy and overall contribute to meaning making and improved mental health.

The small-scale quantitative data bolstered the qualitative data. The quantitative data collected in the satisfaction survey reflected some of the core concepts and theories from the game. Parents/guardians and children perceived that the game promoted healthy thinking and behaviour. Fostering agency over thoughts and behaviours, as noted, is a foundational component of MM Theory.

The quantitative data further assessed fundamental concepts that contribute to fostering healthy attachment (i.e., openness to one's own and other's feelings, emotional literacy). Secure attachment is characterized by a person having a sense of safety in the relationships they have (Moore, 2021), and can be fostered through SEL and play. Moods Managed seeks to secure attachment in several ways, specifically by developing feelings literacy, encouraging conversations within the family, and promoting fun. Participants perceived that the game fostered feelings literacy and provided families with the opportunity to have conversations as a family. Additionally, families perceived that the board game "totally" promoted fun with family. This indicates the board game is perceived to promote skills to build healthy attachment within families, which contributes to MM. Overall, participants viewed the board game as being able to develop SEL and promote fun in families. These findings suggest Moods Managed contributes to fostering healthy attachment within families, ultimately aligning with MM.

Finally, as MM has foundations in Logotherapy, a meaning-centred framework, the quantitative data examined how some of the core concepts of logotherapy are found in the game. Logotherapy emphasizes the pursuit of meaning and purpose in life, with some key characteristics that ought to be nurtured in a person to foster this sense of meaning and purpose.

Specifically, Frankl posits that a person who has positive self-concept, or high self-esteem, is more likely to perceive meaning in their life (1986). Additionally, those who have a sense of their purpose in life tend to have hope for the future. Positive self-concept and hope for the future are core concepts of MM Theory. Participants perceived that the game promoted self-esteem. Although qualitative findings suggested that the game promotes hope for the future, quantitative findings suggested that it may only be perceived as “somewhat” doing this. However, the range of scores was large, indicating that there was a high disparity in answers; where some participants perceived the game to “totally” promote self-esteem and hope for the future, while others found these skills were “not at all” reflected in the game. These moderate scores indicate room for improvement in instilling hope for the future. However, in qualitative findings, parents/guardians described this sense of “hope” as learning how to not being victims to their emotions and how to move through difficult experiences. Divergent scores may, thus, simply reflect how different families defined “hope” for the future.

A fundamental component of the DREAM program is teaching participants skills that foster MM. Participants for this project were asked whether they perceived the Moods Managed board game fosters these skills, and the quantitative scores showed that participants perceive the board game promotes these skills “quite a bit.”. Specifically, this finding reflects that the strategies and activities in the game resonate with participants and are perceived as valuable for developing the targeted goal of promoting MM, further indicating that the board game appears to be credible. Overall, quantitative findings suggest that they perceive this game as credibly reflecting the components of MM. Specifically, the game was perceived to foster agency, and openness to emotions, positive self-concept a great deal, and somewhat promote hope for the future.

Feasibility

This theme refers to the stakeholder's perceived ability to play the game (ease of game play; ease of incorporating strategies learned into their lives; ease of incorporating game play into their lives). It describes how possible the participants feel it is to play the game, given their resources and opportunities.

Feedback reflected that generally parents felt they had the resources to play the game. Resources reported included general enjoyment of board games as a family, parents who are interested in fostering these kinds of skills in their kids, and parents who are present to facilitate the conversations being had during the board game play. However, a key criticism that participants offered concerning feasibility was concerning how effective the game would be if there was no parent or responsible adult involved in the game play: However, the game was intended for full-family play. Families involved in the project were traditional, with two parents and two children living in the same home, and not all parents/guardians would necessarily be present to play the game with their children in other households. It was recommended that the game be adapted to be a video game; this would make the game an individual activity that children can do independently or with their parents. Not only would this solve the problem of not having parents present but would reflect the direction that children's entertainment is taking in society. An issue with this suggestion is that one of the foundations of MM Theory is its attachment-basis, and the game player's opportunity to make connections and practice social and emotional learning through play would be lost through individuating the game via an app. Further, if the game is to reinforce the school-based DREAM program at home, it is important that parents are present for discussions and learning strategies to reinforce skills at home.

Sustainability

This theme refers to whether the board game is likely to be used by families at home.

Ultimately, sustainability explores whether the game can sustain its intended goals and use.

Most parents and guardians reported they believed their family would choose to play the game and would use the skills they learned through the game. Specifically, parents perceived their children would use the coping tools on the solution cards, including deep breathing, naming their emotions, pausing to think about how others feel, and talking with others about feelings and ideas. However, participants remarked that they were unsure if their children would retain the knowledge or skills, they learned during game play after playing just once. Most families did not believe the skills in the game would be sustainable unless they played the game on more occasions, over a longer time period. Given that this project only allowed participants to play one time, this feedback underscores a key limitation of the current study (a single session of game play).

Parents also reported that the game, if accessible, was likely to be played because the game itself was engaging. Parents shared that they are likely to encourage their kids to play at home and would initiate game play with their children because the game promotes the kind of skills and values they would want to instill in their children. However, one parent reported that while the game was enjoyable, they were not likely to choose to play the game over other mental health promotion board games. Another parent reported that they would not choose to play this with their neurotypical children but would want their neurodivergent children to play the game to learn skills.

Some participants observed that the game would be better used in a different setting than home; specifically, many families wondered if this resource would be best used at school. Specifically, one parent suggested that because the resource is so educative, it would fit at

school, and be a fun activity. The same parent suggested the game could be used as a part of a leadership initiative where older students bring the game into the classrooms of younger students to build relationships across ages. Peer-to-peer literacy is a key way in which children learn and want to learn mental health skills (CASEL, 2024). This would provide younger children with role models, and the older students would be able to benefit from learning the skills in the game as well. One family suggested that the game may be best used in a therapeutic setting with a counsellor present, or for a family in therapy who is seeking to improve relationships and connections with one another. Overall, the feedback on feasibility captures a range of perspectives on the game's potential effectiveness and usage scenarios.

Game play.

Acceptability. Overall, the participants enjoyed playing the game. Highlights included the tactile nature of the tokens, the beautiful graphic design, the creative fantasy characters, and playing with families. Parents reported that they appreciated the goal of the game, while the child participants enjoyed flicking the tokens and thinking about the scenarios with magic creatures. The quantitative data reflected these reports; participants rated the game as highly enjoyable, indicating that participants – both adult and child – perceived the game as acceptably satisfying. There were some criticisms: some participants noticed there were some typos in the game and noted the rough nature of the game board (which was constructed from a pizza box). These perceptions did not, however, seem to impact the overall enjoyment of the game. Nevertheless, some parents and guardians speculated that there could be more emotions reflected in the game, and a way for children to have more options when they choose solutions to the tricky situations. In all, the board game and the rules were enjoyable for families, as reflected in both the qualitative and quantitative data.

Credibility. Participants enjoyed the problem-solving portion of the game, specifically when clients are encouraged to think about a person's issue and how they feel, and asked to pick a solutions card that solves the tricky situation. However, it was recommended that the game's rules be altered to minimize bias. Children were picking and advocating for their own solution cards during game play because they wanted an opportunity to flick the token on the board for points. The bias issue impacts the game's credibility because they are not earnestly considering what would solve the tricky situation. As mentioned, practicing empathy, and considering how others are feeling is a core part of SEL which fosters healthy attachment. If participants are picking cards they think would win, it minimizes the experience of considering what would be best for others, thus diminishing credibility.

Feasibility. The rule that has each player take turns being the messenger offers the participants the opportunity to make the final decision. All players – no matter age gender, sexuality, etc. – could assess the options presented and choose the best results. Parents/guardians reflected that this rule made it possible for their younger or shyer children to practice thinking about the most optimal solution. Most families also reported that the board game offered them an opportunity to talk about feelings scenarios and other topics that would not otherwise come up in day-to-day conversation. Moving these ideas and concepts into a board game format makes it more feasible for families to engage with one another at this level. However, a few participants reflected that the nature of the game (themes, aesthetic, etc.) was not suitable for teens, and therefore it was not likely that families with older children would use the resource. It was recommended that the game be targeted at a younger audience, specifically children ages 6 to 12. Given that the DREAM program is intended for children between the ages of 6 to 12, the feedback reflects that Moods Managed's themes and aesthetic intended for a certain audience

align with DREAM's target audience. Similarly, one parent recommended that the situations could be simplified to make more sense for the younger players who have difficulty reading, or for children with developmental delays and learning disabilities. Thus, the game was generally considered feasible to play, with issues arising that can easily be addressed through editing and re-printing.

Sustainability. Participants reported the game was interesting enough to hold the participant's attention and have them want to play again. For example, a parent with an 8-year-old child reflected their child generally struggles with attention, and the game was engaging enough to keep them tuned in. This parent attributed it to the collaborative nature of the game – even though each participant is playing individually and takes turns being the messenger, players are all conversing about the tricky situation no matter whose turn it is. More families reflected that the tricky situations were relatable and therefore generalizable to “real life”, indicating the activities in the game are sustainable to use.

Implications

KTI

A Knowledge Translation Integrated (KTI) approach is a Third Wave Positive Psychology (PP3.0) methodology of MM Theory. Specifically, it is a community-action approach that engages diverse stakeholders as co-collaborators in developing resources to ensure fit for the population these resources serve (Armstrong & Potter, 2023). The current study demonstrates the value of the KTI approach to research within the context of resource development, specifically board games. The results of this study suggest the importance of engaging stakeholders during the research process. Specifically, to ensure the board game is both feasible and sustainable for the intended audience, KTI allows stakeholders to speak to their capacities, the resources they

have available that allow them to use the research, and their perception of how useful the research is to them. Additionally, the study offered the researchers an opportunity to observe whether the game is acceptable and credible, allowing for ongoing development to ensure the useability for the people the game serves.

The present study gathered results from both children and parent participants, therefore, diverse perspectives were collected, which enriched the results. For example, using KTI, the researcher was able to encode both the written data from children on the surveys and the interview data from parents/guardians into KTI's four categories acceptability, credibility, feasibility, and sustainability. Thus, the results from the KTI reflected the perspectives of all stakeholders. A benefit of using KTI in a study like this is that the results of this study can be used to enrich future studies in this area. The feedback that stakeholders offered (validations, criticisms, recommendations) can be used to adapt the board game and can even be generalized to the development of future mental health board games targeted at children of similar age. Given the apparent success of the KTI model in not only this project but also in past DREAM program studies, it would be prudent to continue to use this research methodology. Using KTI in future DREAM or Moods Managed projects would ensure consistency.

Board Games

This study illustrates how play, specifically play through board games, is a useful way to disseminate mental health information to children and to foster skills that make mental health better. Playing is an engaging way to interact with children to teach them about mental health; play is enjoyable, which makes learning more appealing to children. Additionally, play teaches skills and experience that foster healthy attachment; this was demonstrated in this study.

Participants reported they had fun together, the game encouraged healthy conversations and allowed players to develop SEL skills.

However, board games may not be therapeutic for everybody. In this study, there were mixed reviews on who the game was best suited for. One family pointed out that this game may not be a good fit for neurodivergent children; their child with an ADHD diagnosis had trouble staying on task and waiting their turn. Conversely, another family shared they thought it was a great resource for their child with Down Syndrome, because it was a fun way to learn how to communicate about emotions. Some participants suggested that the board game would be better suited for an educational or therapeutic setting, where the game could be facilitated by a counsellor or teacher. Additionally, the game caused some conflict between siblings: while playing, one child began to cry because they were losing. This is congruent with research that speculates board games require a level of emotional regulation that not all children possess (Martinez & Lasser, 2013). However, the results of this study indicate that the board game was perceived by participants as overall acceptable, credible feasible, and sustainable. Not only this, but the participants enjoyed the game, generally indicating that if this resource was available then they would opt to use it. When resources are fun, they are likely to be used. This indicates that board games may be good mediums through which to communicate information: as demonstrated in the literature, they are effective, but are also likely to be used by families. Thus, games may be helpful ways to reinforce school-based mental health knowledge within the home.

Board Games and Rural Communities

Based on the feedback from participants, the implication is that this resource may be useful to families who do not have access to sufficient MH care. For instance, board games can be stocked in stores and purchased. They can be shipped directly to homes. They are ubiquitous

in a way that a MHPs cannot be. Also, they are cost effective. There is more poverty in rural and northern Canadian communities; where psychotherapy can cost \$200 per session (Marcel, 2024), the average board game costs between \$50 to \$100 (Diver, 2023) and can be played many times. Board games may not be a sufficient substitute for psychotherapy; however, they can be used as a resource to support youth and families. In addition, Moods Managed was perceived as an educational resource by participants, many of whom suggested the game be used in schools. In rural Canada, there is less access to education and board games may serve as an educational resource that can foster MH. Thus, the implication of this study shows that board games may be a useful resource to Canadians with limited access to MH care.

Limitations

Generalizability of Results

A significant limitation of this study is the sample size. The target sample is rural communities in Canada. There are over 75,000 people are living in the rural area of Lanark County, where 20.3% of residents are under the age of 15 (Statistics Canada, 2021b). In this study, the sample size is 18, and therefore the sample will be approximately 0.2% of the population. However, 10,144 people are living in Glengarry and nearly 15% are children and teens under the age of 15 (Statistics Canada, 2021a). This sample accounts for 1.2% of the population. Both sample percentages are low, which may impact the generalizability of the results. However, the small sample was selected to develop rich qualitative feedback for ongoing game development.

Similarly, convenience sampling was used to recruit participants for the study, which could also limit the generalizability of the findings. Additionally, using personal communication with

participants could lead to potential biases as the researcher may have a pre-established relationship with the participants, and make assumptions while transcribing the data.

Additionally, participants of this study were predominantly from traditional family structures where both the mother and the father live at home together with their children, which is not the most common family structure for rural communities in Canada. While this demographic offers valuable insights, it restricts broader findings. Particularly, rural areas contain more families with lower socioeconomic status (SES) and families with a single parent (specifically a single mother) are considered more vulnerable (Burns et al., 2013). Families with single mothers face unique challenges in rural areas and are more likely to have lower SES than families in rural areas (Burns et. al, 2013); this is attributed to the lack of access to resources, support, or education in rural areas, including mental health resources. Children raised in families with low SES are more likely to suffer from mental disability or psychiatric conditions (Hudson, 2005), which indicates an even greater need for accessible resources in rural areas.

Finally, this current project does not include indigenous Canadians in its sample size. There is a disproportionate number of Indigenous people in rural Canada. Indigenous communities are predominantly located in rural Canada, where 60% of Canada's indigenous population live in rural areas (compared to 27% of non-indigenous Canadians living in rural areas) (OECD, 2020). The target population is rural families in Ontario; given that there are no indigenous Canadians in this present study, the generalizability of results could be affected.

Ethical Considerations

Vulnerable Population

There were some potential ethical concerns in this study, specifically the risks involved in working with kids. Children under the age of 18 are considered a vulnerable population, thus the

participants were fully informed on what they would participate in. There was also some personal or sensitive material discussed while playing the board game, so the researchers obtained consent from all parents, guardians, or any children who were able to consent for themselves. However, sensitive discussions generally related to the characters in the game, rather than to personal issues.

Gender and Sexuality

It was important to consider the role of gender, sexuality, and representation in this study. The game involves fantastical scenarios with kings, queens, witches, and wizards; the writing and graphics in this game were intentionally inclusive to avoid stereotyping certain characters. For example, in the game scenarios are dealing with a unicorn or a knight – in these instances, the unicorn has he/him pronouns, and the knight's pronouns are she/her. The author has intentionally enriched gender representation and avoided perpetuating heteronormative ideals or gender stereotypes. Further, some of the scenarios presented in the game could be specifically relatable by transgender children. Something that can help ensure projects are inclusive and accurately representative is to include people from diverse gender and sexuality backgrounds at all stages of game development.

Recommendations for future research.

The next step for this project is to implement the recommendations given by stakeholders. Specifically, the board game rules need to be adapted to minimize player bias, more emotions need to be added to the game, and some of the language on the coping cards needs to be refined so that younger children can understand and engage with the scenarios. Additionally, a future project should examine whether game play enhances MM and mental health in comparison to a control group who plays a traditional board game. For the present

study, results reflected participants' perceived experience of the core KTI components acceptability, credibility, sustainability, and feasibility. In a future study, gathering some quantitative data to examine the connection between MM in children and the board game could shed some light on the direct potential impact the board game has on a child's mental health. For example, a future study could collect pre and post-test data that measures MM and mental health. Specifically, a researcher could use the Child Identity and Purpose Questionnaire Interactive (ChIP; Armstrong et al., 2020), a MM questionnaire, to measure various components that contribute to fostering meaning in daily life. The researcher could also use the Interactive Symptom Assessment (ISA; Armstrong et al., 2022), which measures both the internal and external experience of mental health symptoms. Using these two measures in tandem could help to gather enough information about a child's MM and mental health before and after playing Moods Managed.

Moving forward, this project could improve its generalizability by using a more diverse sample size which better reflects the demographic of the target population. Specifically, a future sample size could include fewer traditional families with high SES and involve more indigenous people given that this population makes up so much of Canada's rural communities.

A future study could target a different population entirely – this research does not need to be limited to rural communities. The present project yielded findings that this could be a valuable resource for neurodivergent or developmentally delayed children. The goals of the board game, which is to improve mental health in children and foster MM, may be helpful to all children.

Given the feedback from some of the participants, this project may not produce results after one game play; future studies could be longitudinal, or the game could be played several

times over a longer period to see if the participants retain the knowledge and skills learned during game play.

As suggested by a participant, it could be interesting to adapt this board game into an app. Apps have increasingly been recognized as a useful tool in the mental health field, given the ubiquitous nature of smartphones (Neary & Scheller, 2018). Apps are generally accessible and affordable, which would fulfil some of the needs of this project's target population.

Conclusion

The growing mental health crisis requires immediate and urgent attention (CMHA, 2024; CAMH, 2022; MHCC, 2024(a)(b); CMHO, 2020). Rural communities are particularly vulnerable to extreme mental health problems, and a significant contributing factor is the lack of access to MH resources (Iyer et. al, 2015; Mandal & Burella, 2021). The current study highlights the importance of developing alternative MH resources that may meet the needs of people living in areas that do not have easy access to mental health support. Project participants offered feedback that could help shape the development of Moods Managed, a mental health board game that fosters MM and overall better mental health. The widespread use of this resource may improve the quality of life and helpfully alleviate the mental health economic burden for children and families living in Canada's rural communities.

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Figure 1: Pathways to Resilience through Meaning Mindset

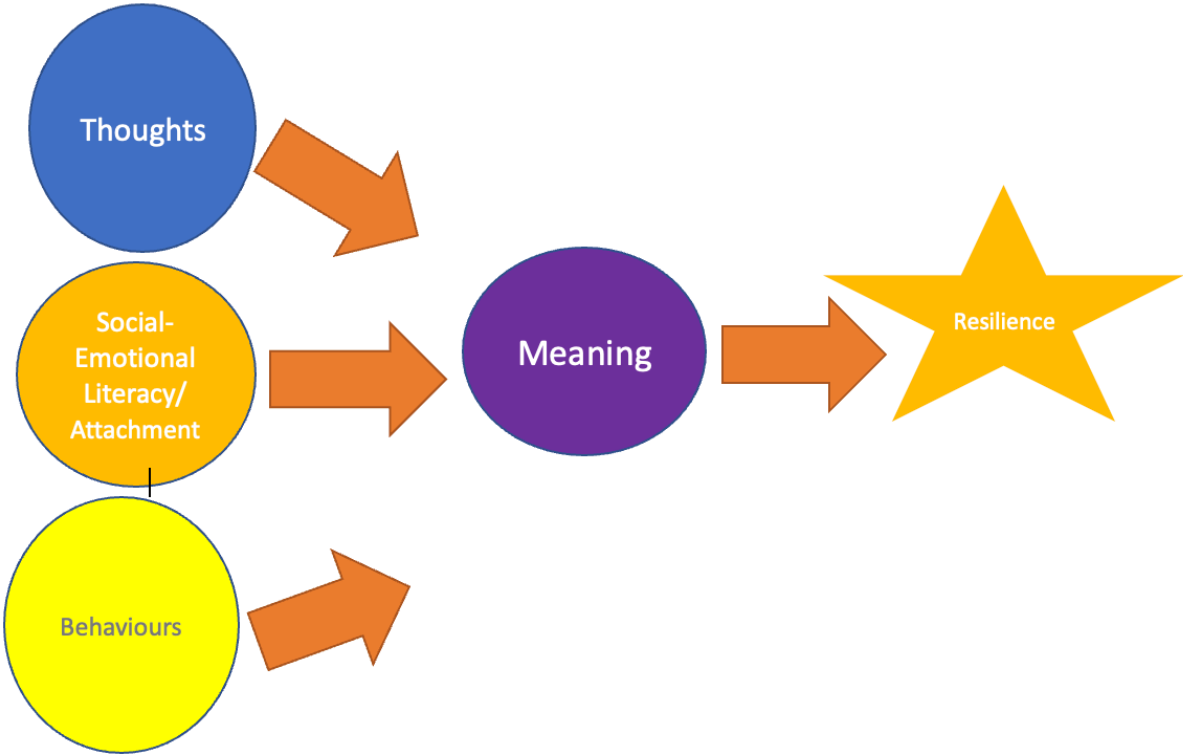


Figure 1. Pathways to Resilience Through Meaning Mindset (Armstrong & Potter, June 2023)

Figure 2. Moods Managed Satisfaction Survey Scale



Figure 2. Moods Managed Satisfaction Survey Scale (Armstrong, 2018)

APPENDIX A

Moods Managed Satisfaction Surveys

(Armstrong, 2018)

Satisfaction survey

1) How happy were you today with the board game Moods Managed? (playability, what you learned, how fun it was?) Circle the flower that best represents your response.

- 5= happy
- 4= mostly happy
- 3= so-so
- 2=mostly unhappy
- 1= unhappy



What did you like? Do you have ideas to make the game better?

2) Do you think today's game gives kids ideas about how to **think** in a healthier way? Circle the flower that best represents your response.

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



3) Do you think today's game gives kids ideas about how to **act** in a healthier way? Circle the flower that best represents your response.

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



4) Do you think today's game helps kids learn things that could be good for their self-esteem (liking yourself, feeling worthwhile, believing in yourself and knowing what you do well)? Circle the flower that best represents your response.

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



5) Did today's game give you a bit of hope in knowing how to manage difficult situations?

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



6) Do you think today's game might help kids notice their feelings?

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



7) Do you think today's game might help kids learn skills to be able to try or learn new things?

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



8) With the game, did you have fun with your family? Circle the flower that best represents your response.

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



9) Do you think that today's game helped you and your family talk about important things? Circle the flower that best represents your response.

- 5= Totally
- 4= Quite a bit
- 3= So-so
- 2=Not really
- 1= Not at all



Enquête de satisfaction

- 1) Dans quelle mesure avez-vous été satisfait du jeu de société Moods Managed aujourd'hui ? (jouabilité, ce que vous avez appris, le plaisir que vous avez éprouvé)
Entourez la fleur qui représente le mieux votre réponse.

5= heureux

4= plutôt heureux

3= moyennement heureux

2= presque malheureux

1= malheureux



Qu'avez-vous aimé ? Avez-vous des idées pour améliorer le jeu ?

- 2) Pensez-vous que le jeu d'aujourd'hui donne aux enfants des idées pour **penser** de manière plus saine ? Entourez la fleur qui correspond le mieux à votre réponse.

- 5= heureux
4= plutôt heureux
3= moyennement heureux
2= presque malheureux
1= malheureux



- 3) Pensez-vous que le jeu d'aujourd'hui donne aux enfants des idées sur la façon **d'agir** de manière plus saine ? Entourez la fleur qui correspond le mieux à votre réponse.

- 5= heureux
4= plutôt heureux
3= moyennement heureux
2= presque malheureux
1= malheureux



4) Pensez-vous que le jeu d'aujourd'hui aide les enfants à apprendre des choses qui pourraient être bénéfiques pour leur estime de soi (s'aimer, se sentir utile, croire en soi et savoir ce que l'on fait bien) ? Entourez la fleur qui correspond le mieux à votre réponse.

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



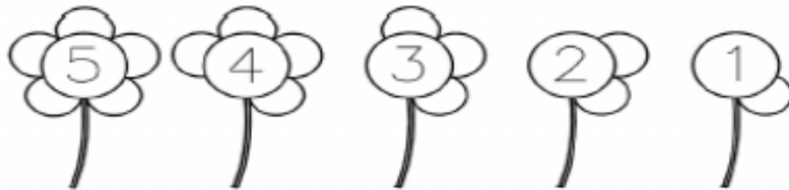
5) Le match d'aujourd'hui vous a-t-il donné un peu d'espoir en vous permettant de gérer des situations difficiles ?

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



6) Pensez-vous que le jeu d'aujourd'hui pourrait aider les enfants à prendre conscience de leurs sentiments ?

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



7) Pensez-vous que le jeu d'aujourd'hui peut aider les enfants à acquérir des compétences qui leur permettront d'essayer ou d'apprendre de nouvelles choses ?

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



7) Avec le jeu, t'es-tu amusé en famille ? Entourez la fleur qui représente le mieux votre réponse

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



8) Pensez-vous que le jeu d'aujourd'hui vous a aidé, vous et votre famille, à parler de choses importantes ? Entourez la fleur qui correspond le mieux à votre réponse.

- 5= heureux
- 4= plutôt heureux
- 3= moyennement heureux
- 2= presque malheureux
- 1= malheureux



APPENDIX B

Qualitative Interview Questions

*explain DREAM program|

Meaning Mindset is a theoretical framework drawing inspiration from various psychotherapies, such as rational-emotive therapy, attachment therapy, and logo therapy. Its primary objective is to empower children to take control of their thoughts, emotions, and behavior, while cultivating receptiveness to the feelings of others, hope for the future, a willingness to explore the experiences of those around them, and an eagerness to embrace new encounters.

Within this framework, the game incorporates several elements designed to support these goals. For instance, as children engage in discussions about the emotions of the in-game characters, they practice empathy and gain insight into the perspective of others in different situations. Additionally, the game equips them with a diverse set of coping skills and tools for their emotional toolbox, fostering emotional well-being, reinforcing the idea that they have agency in their responses to challenging situations, and teaching them various strategies to manage intense emotions.

(Acceptability) Do you think that this game accurately reflects the ideas from meaning mindset? Based on what you know of meaning mindset and the DREAM program, can you see the link between what those theories are trying to foster, and how the game is designed? In what ways?

(Credibility) Based on what you know of the DREAM program, and what I've just told you about meaning mindset, do you think that this game is fostering meaning mindset? For example, agency, positive self-concept, openness to your own feelings, and to other's feelings? Did you think the game taught you and your kids about the things that make up meaning mindset?

(Sustainability) Are the skills being taught in the game useful long-term, and do you think the children would use them in the future? i.e. the activities on the cards? Do you feel like you have the resources to use some of the skills the game promotes?

(Feasibility) Do you think this game is a useful resource for families? In what ways? Would you choose to play it if it was available to you?

(General) Was playing the game an enjoyable experience for your children and for you? What did you like or dislike?

APPENDIX C

Moods Managed: board game rules

(Armstrong, 2021)

<p style="text-align: center;">Moods Managed</p> <p style="text-align: center;">Rules</p> <p>Ages 6+ (with reading ability)</p> <p>Moods Managed is a wild fantasy family game for 3 to 6 players. You and your friends are walking in the forest when you come upon a small cave, hidden by tall grass and fir trees. When peeking inside, you spy a shiny, gold rock on the wall of the cave. You want to touch it. You'd like to bring the stone home. But, when you pull on it, the ground beneath your feet shakes and a flash of bright light surrounds you and your friends. Suddenly, you find yourselves sitting at a fancy table in a magical Royal court. You are now the "feeling advisors" to the Royal kingdom. The kingdom's motto is: "A calm kingdom is a happy kingdom." To be sent back home with your friends, you have to help the people or creatures of the kingdom manage their tricky moods. But watch out! You or one of your friends may also try to create trouble in the kingdom. You can overthrow the Royals and become the next in line for the throne, but that comes with a cost: You're all stuck in the kingdom forever. How are you going to choose to play the game?</p> <p>What's in the Box</p> <ul style="list-style-type: none"> • 36 plain buttons (6 of each colour) • 6 angry, 6 sad, 6 afraid face buttons • 300 coping cards (Blue) • 190 Royal kingdom feeling scenario cards <p>Starting the Game</p> <ol style="list-style-type: none"> 1) Deal 5 coping cards to each player. 	<ol style="list-style-type: none"> 2) Choose a player to be the first "messenger." <p>Playing the Game</p> <ol style="list-style-type: none"> 1) The messenger picks a yellow Royal kingdom scenario card, reads it out loud and places it face up on the table. 2) All of the players discuss what the character (highlighted yellow) on the scenario card might be feeling—sad, angry, or scared—and why the character might be feeling that way. The messenger makes the final decision as to what the character is feeling and shoots the corresponding face button onto the board. To shoot: Players must place the button anywhere on the brown "wall" area of the board. 3) The remaining players (i.e. those who are not the messenger this round) look at their hand of coping cards and think about which coping "tool" would be best to manage the character's sad, angry, or scared mood in this situation. They place their card face down in a pile on the table. 4) The messenger shuffles the players' chosen coping cards and reads them out loud. As a group, without stating which card they played themselves, players discuss the benefits of each coping tool for this situation and feeling. The messenger then selects the card that he or she believes best manages the mood. 5) If a player's card is selected, then the player gets to shoot one of their coloured buttons onto the board (from anywhere on the wall area of the board) in order to score points. The 	<p>player's button must touch at least one feeling button that is on the board. If they do not touch one of the feeling buttons, then their button is returned to their button pile.</p> <ol style="list-style-type: none"> 6) The used coping cards and used scenario card are put in a discard pile. Players receive a new coping card so that they always have 5 cards. 7) The messenger rotates clockwise each round. 8) Play continues until all players have had the chance to be the messenger three times in a 3 to 4 player game and twice in a 5 to 6 player game. <p>To Win the Game</p> <ol style="list-style-type: none"> 1) Add up each player's total points at the end of the 2 or 3 rounds. The person with the highest number of points in the winner: Moods Managed! A flash of light is seen and everyone is transported back to the forest from where they came. They are home! 2) If you are a messenger, you could also win the game. If you can shoot a feeling button onto the game board and that particular feeling has enough buttons (e.g., enough "sad faces") on the board to total more than 30 points, then there is unrest in the kingdom. The peasants revolt! You overthrow the royalty and become the new king or queen. You win, but you and your friends are stuck in the kingdom forever.
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APPENDIX D

Ethics Approval



UNIVERSITÉ
SAINT-PAUL
UNIVERSITY



CERTIFICAT D'ÉTHIQUE
ETHICS CERTIFICATE

Ethics Certificate Number: 1360.7/23

Keltie Gardiner

M.A. Candidate

Student number: 8194018

M.A. Thesis Proposal

**“ Moods Managed: Refining a Mental Health Education Game
for Children and Youth in Rural Ontario ”**



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Université Saint Paul University
223, Main Ottawa (Ontario) Canada K1S 1C4
Tel 613 236-1393 Fax 613 782-3005

ustpaul.ca