



2023

## READING THE WARNING SIGNS: PREVENTIVE MENTAL HEALTH YOUTH EDUCATION PROGRAM

Cammy Cate Robertson

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READING THE WARNING SIGNS: PREVENTIVE MENTAL HEALTH YOUTH EDUCATION PROGRAM

by

Cammy Cate Robertson

Doctor of Occupational Therapy, University of North Dakota, 2023

A Scholarly Project

Submitted to the Graduate Faculty

of the

University of North Dakota

in partial fulfillment of the requirements

for the degree of


Occupational Therapy Doctorate

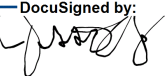
Grand Forks, North Dakota

May  
2023

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This, scholarly project, submitted by Cammy Robertson in partial fulfillment of the requirement for the Degree of Occupational Therapy Doctorate from the University of North Dakota, has been read by the Faculty Advisor under whom the work has been done and is hereby approved.

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## PERMISSION

Title            Reading the Warning Signs: Preventive Mental Health Youth Education

Department    Occupational Therapy

Degree           Doctor of Occupational Therapy

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## ACKNOWLEDGEMENTS

I wish to express my sincere appreciation to my advisors, Dr. Breann Lamborn and Dr. Jessa Hulteng for support, encouragement, and dedication throughout the development of this project. I would also like to thank the Natrona County Suicide Prevention Task Force for allowing me to be a part of their group.

## ABSTRACT

**Problem:** Wyoming is the third leading state in suicide related death (Centers for Disease Control and Prevention [CDC], 2018; Wyoming Department of Health, n.d.). According to the National Institute of Mental Health (2022), suicide is the second leading cause of death in individuals aged 10-14. One in six youth experiences a mental health disorder yearly, while 50% of individuals aged 14 begin to have lifelong mental health concerns (Kessler et al., 2005; Whitney & Peterson, 2019). Students who experience depression are twice as likely to drop out of school, and students with mental, emotional, or behavioral concerns are three times more likely to repeat a grade (Data Resource Center for Child and Adolescent Health, n.d.; Dupere et al., 2018). Mental health disorders affect the way children learn, behave, regulate emotions, and function throughout the day (CDC, 2022).

**Product:** The project is a school-based preventative mental health youth education program that provides lifelong skills focusing on coping strategies to reduce anxiety, supportive mental health awareness, recognition of suicidal behaviors, and resources that provides students with tools to reduce mental health concerns. The product aims to establish or increase self-regulation, self-efficacy, and self-esteem. Analysis of the evidence base determined that students with these skills were more likely to have help-seeking behavior, strong social supports, and resilience creating positive mental health outcomes.

**Methodology:** An extensive literature review needs assessment was completed to create an effective preventive mental health program by identifying supports and barriers youth face that contribute to mental health outcomes. The two theories that supported the development of this program were the model of human occupation and cognitive behavioral therapy (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017).

**Results:** The result of the school-based preventative mental health youth education program encourages early mental health treatment, reduces stigma surrounding mental health concerns and mental illness, and increases mental health literacy. The implementation of this preventive program will provide students and teachers with mental health knowledge with the intent to decrease death by suicide and implement preventive mental health outcomes.



## CHAPTER I

### **Introduction**

Challenging mental health is a growing concern in the adolescent population in the United States. In Wyoming 10 students aged 0-17 attempted suicide in 2019, only 12.8% aged 3-18 of the population received mental health care, and 17.6% aged 12-17 reported having a major depressive episode (Kaiser Family Foundation, n.d.). One in six youth experiences a mental health disorder yearly, while 50% of individuals aged 14 begin to have lifelong mental health concerns (Kessler et al., 2005; Whitney & Peterson, 2019). In 2019, the country Lesotho had a suicide rate per capita of 72.4 and the country Guyana's had a rate of 40.3, therefore, in 2021 Wyoming's rate was 32.8 making Wyoming the third leading state in the world for suicide death (Drapeau & McIntosh, 2023; World Population Review, 2020). Indicating a serious need for mental health awareness in the state of Wyoming.

Additionally, suicide is the second leading cause of death among adolescents aged 10-14 and almost 3 million youth have experienced severe thoughts of suicide (National Institute of Mental Health [NIMH], 2022; Substance Abuse and Mental Health Services Administration [SAMHSA], 2021). Mental health conditions affect a person's ability to perform daily occupations, routines, habits, and roles (NAMI, n.d.). Therefore, students who experience depression are twice as likely to drop out of school, and students with mental, emotional, or behavioral concerns are three times more likely to repeat a grade (Data Resource Center for Child and Adolescent Health, n.d.; Dupere et al., 2018). Mental health challenges affect a student's ability to perform in school and other aspects of life, therefore, warranting a school mental health program.

## **Problem**

Untreated mental health concerns can affect both morbidity and mortality (Johnson, 2022). Individuals with mental health conditions are susceptible to developing chronic diseases with adverse health conditions, which include strokes and heart attacks that lead to mortality (Johnson, 2022). The leading cause of hospitalizations is mood disorders, 46% of individuals who have a mental health condition died from suicide, and 90% of individuals with a mental illness have committed suicide (CDC, 2018; Isometsa, 2001; Kessler et al., 2008; National Institute of Mental Health [NAMI], 2022). Proper mental health education will create access to care, identify the need for mental health services, and reduce stigma by normalizing mental health needs (Johnson, 2022; Mental Health America, n.d.).

The identified problem addressed by this scholarly project is the need for mental health education in schools. Wyoming was identified as the third leading state in the world for suicide death indicating a severe need for a mental health program (Drapeau & McIntosh, 2023; World Population Review, 2020). Moreover, it appears that Wyoming does not have an established mental health program within the schools, however, the Natrona County school district curriculum addresses mental health-based objectives that this program will target (Natrona County School District #1, 2016). Schools can contribute an important role in connecting youth to mental health services, early intervention, and eliminating barriers to mental health care access (NAMI, n.d.). Limited access to mental healthcare resources is the result of the increasing prevalence of mental health disorders and the lack of access, affordability, and location (Johnson, 2022; Mental Health America, n.d.). There is a growing demand for behavioral health services as a result of rising mental health conditions. Expanding access to

mental healthcare will provide support, equity, funding, and early intervention and prevention (Johnson, 2022; Mental Health America, n.d.).

### **Purpose**

The purpose of this product is to provide preventive education to students to increase mental health knowledge to encourage early intervention, help-seeking behavior, social support, and reduce stigma. Dimitropoulos et al. (2021) found that strong social support and effective communication reduced mental health stigma and motivated help-seeking behavior from students. However, factors affecting youth mental health are extreme and persistent emotions, trauma, family crisis, loss, ongoing abuse, genetics, and social, cultural, and historical trends (Haag, 2019). This product, *Reading the Warning Signs: Preventive Mental Health Youth Education Program*, is based on the model of human occupation and the theoretical principles of cognitive-behavioral therapy (CBT) to increase the performance capacity and volition in adolescent youth who are experiencing mental health concerns. Mental health education can provide children with coping skills, mental health literacy knowledge, adolescent development literacy, social support, and time to work through their emotions. This will also assist in improving the early intervention process which has the potential to improve the outcomes of an individual's mental health condition before becoming critical or chronic in the disease process.

### **Project Objectives**

Five project objectives were created to determine the completion of the product. The first objective was to create a literature review needs assessment, utilizing evidence-based literature on an effective mental health prevention program for students and school-based

professionals. The second objective was to synthesize a literature review needs assessment to identify personal and environmental supports and barriers that affect mental health in school-age children. The first and second objectives are presented in chapter II. The third objective was to create a mental health prevention program for school-aged children and staff that will provide lifelong skills, such as coping strategies, supportive mental health awareness, recognition of suicidal behaviors, and mental health resources. The fourth and fifth objectives was to create an assessment to measure the outcomes of the product and modify the product based on the assessment data. The remaining objectives are presented in chapter IV.

### **Theoretical Framework**

The model of human occupation (MOHO) will be integrated with cognitive behavioral therapy (CBT) in this product's development. The goal of MOHO is to rebuild an individual's occupational identity. According to Kielhofner & O'Brien (2017) a prolonged pattern of occupational participation and engagement in the student's meaningful roles and occupations leads to the development of occupational identity and competence. Mental health challenges affect adolescents' role as a student, their performance capacity in schoolwork, and the daily routine of attending school. Occupational identity and competence may be impacted by a student's inability to graduate school because of mental health challenges. For this product, the occupational identity of students with mental health challenges is rebuilt through the promotion and engagement of the education modules of the product. These modules will create new occupations, habits, and routines that will focus on lifelong skills such as coping strategies, mental health awareness, and recognition of suicidal behaviors that will improve their occupational mental health competence. MOHO addresses the impacts that are

associated with the person variables and the environment (Kielhofner & O'Brien, 2017). CBT and MOHO explain that everyone develops a cognitive process that is unique to them (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017). Volition is a cognitive process that manages motivation that affects participation in education modules (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017). Habituation involves having the role as student and the cognitive organization of learned behaviors to create new routines developed from the education modules (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017). The student's mental performance capacity of self-efficacy and self-esteem is the cognitive ability that helps their performance with education modules (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017). The environment either provides support or barriers that impede participation in occupations (Kielhofner & O'Brien, 2017). Finally, MOHO was used to guide the literature review needs assessment by identifying supports and barriers in volition, habituation, performance capacity, and the environment of students and how these constructs affect their ability to participate in school and meaningful occupations (Kielhofner & O'Brien, 2017).

Furthermore, CBT is beneficial to the product because emotions interfere with an individual's ability to participate in occupations (Cole & Tufano, 2020). CBT helps modify internal volition and habituation processes that create maladaptive behaviors in children by correcting distorted thinking, giving control to the individual, psychoeducation, self-management, cognitive and behavioral strategies, and teaching and learning (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017). The CBT approaches that will be used in developing the modules for the program include social, coping, and life skills training, psychoeducation, and self-regulation strategies (Cole & Tufano, 2020). CBT and MOHO can positively influence

students' performance capacity and volition by encouraging motivation and performance in different tasks and environments with the use of and development of cognitive strategies (Cole & Tufano, 2020; Kielhofner & O'Brien, 2017).

The product activity modules are written in Cole's 7 Steps (Cole, 2018). Cole's 7 Steps is a thorough activity outline that engages students through activity, and extensive processing (Cole, 2018). The students will be able to share, generalize, and discuss their views of mental health topics to ensure a clear understanding of each topic (Cole, 2018).

### **Practice Significance**

Adolescence is a time of growth and development, where the key focus for many young people lies in their academic life (NAMI, n.d.). Schools are often the primary environment for these individuals as they strive to learn, grow, and prepare themselves for adulthood (NAMI, n.d.). School personnel plays a critical role in students' lives, and it is essential to provide a preventative mental health program to encourage positive mental health outcomes among adolescents (NAMI, n.d.). Occupational therapists take a personalized approach to intervention, concentrating on the individual instead of the illness. Occupational therapists consider an individual's life experiences and interests to develop meaningful therapy (Cole & Tufano, 2020). Finally, occupational therapy's role in mental health settings is to help create purposeful activities that promote positive health and well-being, inspire healthy behaviors, thoughts, and habits, and help individuals build effective coping strategies, social-emotional skills, and awareness of adolescent mental health development (Cole & Tufano, 2020).

## CHAPTER II

### **Literature Review**

Mental health is a public concern, yet it is often ignored or unrecognized in adolescents and adults (Johnson, 2022). Adults are the gatekeepers of adolescents, and to improve mental health outcomes in children, adults need to be aware of how mental health presents in children and in themselves (Centers for Disease Control and Prevention [CDC], 2022; Pisani et al., 2012). Often, adults dismiss childhood experiences, trauma, life experiences, and social factors affect mental health outcomes; these factors create lifelong effects on personal thoughts, emotions, and behaviors which impact an individual's engagement in meaningful occupations (CDC, 2022; 2019; Haag, 2019). Mental health requires care, treatment, and intervention, just as physical health does (Mental Health America, n.d.). We would not ignore a broken bone, so improving an individual's ability to recognize mental health concerns is equally important.

Mental illness affects 1 in 5 people each year in the United States, with suicide being the twelfth leading cause of death (Substance Abuse and Mental Health Services Administration [SAMSHA], 2021). Wyoming is the third leading state in the nation in suicide deaths and suicide is the seventh cause of death in the state (Centers for Disease Control and Prevention [CDC], 2018). Although mental health and mental illness are used interchangeably, an individual can experience poor mental health and not have a mental illness disorder (CDC, 2021). Both poor mental health and mental illness can create continuous feelings of distress and the inability to function in daily life and occupations (CDC, 2021).

The Centers for Disease Control (2021) identified mental health as an individual's psychological and social well-being that determines how an individual handles stress, relates to

others, and makes healthy choices. According to the CDC (2021), mental health is affected by physical health, the social environment, and life experiences. For example, the 2020 Coronavirus pandemic created a negative impact on mental health by affecting sleep patterns, creating social isolation from peers, and changing routines and habits (National Alliance on Mental Illness [NAMI], 2022).

Mental health plays a role in how children manage stress, form relationships, and make healthy choices, which affects their occupational performance, and the way they learn, behave, emotionally regulate, and function throughout the day (CDC, 2022). According to the Centers for Disease Control and Prevention (2022) “six million children aged 3-17 are diagnosed with ADHD, 5.8 million children have anxiety, 5.5 million have behavior problems, and 2.7 million children are diagnosed with depression” (para. 5). Three out of four children diagnosed with depression also have anxiety and those with anxiety have behavioral problems (CDC, 2022). Important concerns for the adolescent population aged 12-17 are major depressive episodes, persistent feelings of sadness and hopelessness, substance abuse, alcohol use, illicit drug use, suicide planning, and suicide attempts (CDC, 2022). Centers for Disease Control and Prevention (2022) noted:

15.1% had a major depressive episode, 36.7% had persistent feelings of sadness or hopelessness, 4.1% had a substance abuse disorder, 1.6% have an alcohol use disorder, 3.2% had an illicit drug use disorder, 18.8% seriously considered attempting suicide, 15.7% had a suicide plan, 8.9% attempted suicide, 2.5% attempted suicide attempt requiring medication attention (para. 8).



Centers for Disease Control and Prevention (2022) also stated, “eight out of ten children received depression treatment, six out of ten children received anxiety treatment, and five out of ten children received behavior disorder treatment” (para. 9). In Americans with a mental health diagnosis, 50% of the conditions show up by 14 years old, 75% by 25, and 1-5 people aged 13-18 live with mental health challenges, with 20% not getting the help they need (Haag, 2019). Factors that impact mental health in children are living below the poverty level, gender differences, behavioral and developmental disorders, age, discrimination, and adverse childhood events (CDC, 2022). Finally, children spend a majority of their time in school where they are provided with lifelong skills, therefore, addressing mental health in schools would be beneficial for the child because it would increase mental health access, awareness, and early intervention, reduce stigma, and give students the knowledge and abilities to support positive mental health outcomes (NAMI, n.d.).

This review of the literature will use the model of human occupation (MOHO) to explore mental health supports and barriers by identifying the person factors such as volition, habituation, and personal capacity, and the demands and constraints of the environment of students which influence occupational performance (Kielhofner & O’Brien., 2017). Person and environmental factors affect occupational performance through behavior changes which will affect a person’s volition, habituation, and personal capacity (Kielhofner & O’Brien., 2017). Finally, individuals form an occupational identity through occupational competence which reflects the occupations they sustain engagement in, for example, a student that engages in a variety of sports may have the identity and competence of an athlete (Kielhofner & O’Brien., 2017).

## **Volition**

It is important to recognize that student motivation is influenced by volition, which encompasses thoughts and feelings like enjoyment, value, and feeling competent about engaging in meaningful occupations, which could be impacted by mental illness and challenging mental health (Kielhofner & O'Brien., 2017). Mental health and mental illness affect an individual's volition to perform occupations by affecting internalizing and externalizing motivation which improves with physically active interventions (McCulloch et al., 2019; Ravel et al., 2019). Intrinsic actions are motivated by internal pleasure and extrinsic behaviors are motivated by obtaining rewards or avoiding punishment; both intrinsic and extrinsic interventions lessen the risks to mental health (Cherry, 2022; Hein et al., 2015; Ravel et al., 2019).

McCulloch et al. (2019) conducted a qualitative study to assess the views of children, parents, and school staff on interventions that promoted different healthy lifestyles. 45 participants, children aged 7 to 11, their parents, and school staff shared their views about a variety of healthy lifestyles and positive life balance interventions through focus groups. The following eight intervention themes were identified by McCulloch et al. (2019): "rest and reward, reinforcement, enjoyment, delivery by a nonteacher, association with the football club, psychosocial well-being, and physical well-being" (p. 5). Healthy lifestyles were promoted by using physically active games in the classroom to positively engage students to learn the material (McCulloch et al., 2019).

Raval et al. (2019) conducted a longitudinal cohort design for three academic years, starting in 2011 with 239 fourth and fifth-grade students to measure if physically active

interventions reduced mental health risk behaviors through a suicide prevention program. Teachers completed a Strength and Difficulties Questionnaire (SDQ) that evaluated high, medium, or low risk of student behavioral and emotional perspective and measured student symptoms of internal and external behaviors in a mental health prevention program in an elementary school. There were two different interventions for students who faced mental health risks; one was a sports model, and the other was an art model. The sports model included recess mentoring and after-school sports; and creative arts and drama were part of the art model. The two models integrated social and emotional skills during activities which created positive mental health outcomes (Raval et al., 2019).

Raval et al. (2019) found that the students who participated and engaged in the intervention program improved in mental health behaviors and on the Strength and Difficulties Questionnaire. After the intervention, a significant number of students were considered a low risk on the SDQ along with a reduction in behaviors and symptoms. Children with higher initial internalizing risk behaviors demonstrated better outcomes compared to children with externalizing risk behaviors (Raval et al., 2019). Engaging students with physical activity and art activities promoted positive psychosocial well-being, and the students valued the material because the interventions were fun, creative, and active (McCullogh et al., 2019). School-based programming is important because of the substantial impact it makes on adolescents and the school should implement mental health programs into the curriculum rather than in isolation because all students and school staff will benefit from mental health education (Raval et al., 2019). Finally, volition is an important aspect to consider because mental illness and challenging

mental health situations can affect a student's motivation to participate in school and meaningful occupations.

### **Habituation**

It is valuable to recognize habituation in children because it is the actions of patterns and routines that are associated with the habits and roles of an individual (Kielhofner & O'Brien., 2017). Habituation is guided by the routine environment of the individual (Kielhofner & O'Brien., 2017). Roles shape occupational identity and performance that impact a person's perception of self (Kielhofner & O'Brien., 2017). Thus, the primary role of a child is being a student, which can be affected by self-esteem, self-efficacy, expectations of the student, school characteristics, socio-demographic factors, and social support (Burger et al., 2020; Rice et al., 2021).

Rice et al. (2021) performed a 12-month three-wave prospective longitudinal study where students completed questionnaires that evaluated transition concerns from primary to secondary school, identified mental health characteristics in secondary school, determined if these concerns affected school attainment, and evaluated classmate behavior, school attachment, school liking, loneliness, and socio-demographic factors to predict adaptive outcomes. The most stated concerns reported at pre-transition were losing old friends, homework, discipline, detentions, and targets of bullying. However, self-esteem strategies were significantly important because students who had deficits in this area were more likely to have mental health concerns such as self-isolating behavior or maladaptive behaviors which affected the student's adaptability to transition between primary to secondary school. Individuals who had emotional regulation and self-esteem were less likely to suffer from depression, other

mental health concerns, and the detrimental effects of bullying (Rice et al., 2021). Burger et al. (2020) found that self-esteem is related to education plans, school achievement, and eventual income attainment. Self-efficacy relates to mastering new tasks, control over challenging events, and behavior expectations in a child's role as a student. The authors found that individuals with higher self-efficacy and self-esteem in the academic setting had higher economic success, indicating that academic success is one of the key contributors to economic attainment (Burger et al., 2020).

Burger et al. (2020) identified that individuals with low self-esteem focus on their self-protection, which will affect an individual's attainment in education, career, and income. Rice et al. (2021) found that many students stated their biggest concern was lack of social support and feelings of loneliness, which affected their academic attainment. Within the first year, the only concern that subsided after transitioning to secondary school were getting lost and having homework. Finally, mental health difficulties are alarming because it affects the habituation of the child and their ability to function in their role as a student, engage in meaningful occupations, behavior and academic expectations, social school environment, and well-being (Burger et al., 2020; Rice et al., 2021).

### **Performance Capacity**

Performance capacity is the physical and mental abilities that affect an individual's performance in everyday occupations, which creates the need to identify risk and protective factors among students (Kielhofner & O'Brien., 2017; Ong et al., 2021). An individual's performance capacity is affected by self-efficacy which is positively or negatively impacted by social support from family and friends, and engagement in leisure occupations (Burger et al.,

2020). Self-esteem is linked to the mental performance capacity of human functioning, mental health, positive outlook, and behavioral adjustment (Burger et al., 2020). The mental ability of self-esteem is to see self-worth, and self-efficacy is the mental ability to achieve goals with challenges both of which impact occupational performance (Burger et al., 2020). Individuals with high self-efficacy and self-esteem can put the effort into high-level goals, initiate strategy, and attain their objectives regardless of obstacles (Burger et al., 2020). Goal attainment and motivation are positively or negatively affected by self-esteem and self-efficacy which affect an individual's mental and physical capabilities (Burger et al., 2020).

Mcluckie et al. (2014) conducted a secondary analysis survey with 409 ninth graders in a mental health course taught by familiar teachers to measure general mental health knowledge and measure attitudes toward mental disorders and illnesses. The students participated in a pre/post-test, and 265 students participated in a follow-up test. Following the presentation of the mental health course, students showed improvement in mental health knowledge and decreased stigmatizing attitudes. Therefore, a mental health curriculum played a measurable role in improving knowledge and attitudes toward mental disorders and illness when integrated into the school curriculum (Mcluckie et al., 2014).

Ong et al. (2021) conducted a cross-sectional study of children and individuals hospitalized because of mental health disorders to identify suicide risk factors, diagnoses of mental health illness, gender differences, exposure to bullying, and previous suicide attempts. The study contained a retrospective analysis of electronic health records from 41 healthcare facilities across 14 different states, with patients ranging from 13 to 17 years old. The authors found gender differences, such as women having more suicide attempts than men because

men are more likely to succeed in the first attempt. Individuals that are targets of bullying are associated with increased behavioral problems and suicidal behaviors. Bullying and emotional, sexual, and traumatic family loss were significant risk factors in suicide attempts. This points to the need to improve individual performance capacity through mental abilities including coping and emotional skills through suicide prevention programs amongst children. Other risk factor categories included socioeconomic, psychosocial, mental health disorders, and the different age group-specific suicide risk factors (Ong et al., 2021). Out of the various researched risk factors, the most prominent factors that affect individual performance were diagnoses of depressive disorders, cognitive disorders, previous suicide attempts, limited mental health literacy, adolescent development, negative attitudes and stigma toward mental health, and targets of bullying (Mcluckie et al., 2014; Ong et al., 2021). Therefore, indicating these factors effect personal capacity of a student which will impact engagement and performance in meaningful and daily occupations.

### **Environment**

The environment is important because the evidence indicated that the social environment had the biggest impact on adolescents. Maladaptive controlling behaviors, lack of social support, and antisocial behaviors had a negative impact on students (Dimitropoulos et al. 2021; Hein et al., 2015). Students exposed to these factors were more likely to have poor self-esteem, low self-confidence, poor self-regulation, aggression, anger, and become targets of bullying or become bullies (Hemphill et al., 2015; Pisani et al., 2012).

Dimitropoulos et al. (2021) conducted a phenomenological qualitative study to examine school staff's perceived roles in mental health, stigma, and mental health problems seen within

school systems. Forty-eight school personnel including counselors, teachers, administration, and teachers from two participating schools engaged in semi-structured interviews, resulting in four themes. The four themes included the importance of teachers' roles in establishing positive social support with students including creating effective communication skills to support them in a crisis, along with decreasing social isolation and supporting individual student needs. Effective communication and a collaborative work environment between teachers and other disciplines improved relationships with students by providing positive social support, which helped students disclose mental health concerns, decreased isolation, and increased help-seeking behavior (Dimitropoulos et al., 2021).

Weber et al. (2013) conducted a correlation study comparing 396 adolescents ages 13-18 years old with three different assessments that analyzed how the environment affects well-being, self-efficacy, and character strengths. The authors found that individuals who have character strengths including bravery, perseverance, prudence, hope, self-regulation of transcendence, leadership skills, and self-efficacy will have positive satisfaction with life and general self-efficacy because they can adapt to stressful novel environments. Also, other strengths that help promote a satisfying life are religion affiliation, love, hope, gratitude, and excitement about life (Weber et al., 2013).

Dimitropoulos et al. (2021) evaluated school staff's perceptions of mental health and stigmas. Youth spend a substantial amount of time in school so the school and the school staff's roles in supporting mental health and wellbeing are important. Teachers' roles in establishing positive social support with students included creating effective communication skills to support them in a crisis, along with decreasing social isolation and supporting individual student



needs. If support is established within the school, students are more likely to come forward with mental health problems they may be facing (Dimitropoulos et al. 2021). Student and teacher relationships are important because communication is an antidote to stigma and having social connections with school staff helps provide crisis intervention promptly (Dimitropoulos et al. 2021; Pisani et al., 2012). The primary barrier to this relationship is the lack of teacher availability to provide student support (Dimitropoulos et al. 2021).

Mathews et al. (2021) performed a qualitative study to analyze parent, child, and teacher responses to mental health disorders seen in students. 7,977 students from three different countries aged 5-16 participated in the survey along with participating parents and teachers. The study compared teacher evaluations on their ability to predict mental health disorders in children; the result indicated that the accuracy was greater if both the teacher and parents were concerned. The children took the Development and Wellbeing Assessment, and teachers and parents took the Strengths and Difficulties Questionnaire. The authors emphasized the importance of mental health screening in the school setting because schools are the front-line service provider for child mental health. However, how the child behaved in different contexts was linked to the teacher and caregiver not agreeing on mental health concerns. Teachers can predict mental health based on school context, relationships, economic disadvantages of the school, and child behaviors, whereas parents can predict family, and home context-related concerns. The results found that positive mental health outcomes in children were dependent on teacher and parent agreement, and those with only home context measure had poorer mental health (Mathews et al., 2021).

Pisani et al. (2012) conducted a randomized control trial of a school-based suicide prevention program that studied help-seeking behavior, self-disclosure, and suicidal intention in 2373 high school students from 16 different rural schools in New York and North Dakota. The study evaluated relationships between help-seeking behaviors, concealing behaviors, perceptions, barriers, supports, coping skills, and suicidal ideation. Help-seeking disclosure of suicidal ideation is critical for appropriate and early intervention that leads to more positive outcomes. Students who communicated to adults about emotional distress were more likely to receive early intervention (Pisani et al., 2012). The study concluded that 381 students out of 2737 seriously considered suicide and 116 of them attempted suicide. Adults are the gatekeepers of mental health; however, adults often do not detect signs of depression and suicide in youth, which could explain the reason so many adolescents do not receive help (Pisani et al., 2012). Adults who identify mental health concerns in youth may influence positive long-term effects on mental health and suicide risks (Mathews et al., 2021; Pisani et al., 2012).

Hein et al. (2015) conducted a qualitative study to see the effects of teachers' controlling behavior and the outcomes of student aggression, anger, and bullying with 12-16-year-old school-aged children and teachers from 10 different schools in Estonia. A completed online questionnaire measured students' feelings about maladaptive gym teacher reinforcement behaviors with self-reported aggressive and bullying behavior. The results indicated that negative outcomes of bullying, aggression, and anger were linked to teachers who demonstrate controlling behaviors, such as negative conditional approval, intimidation, and excessive control (Hein et al., 2015).

Finally, Hemphill et al. (2015) conducted a longitudinal study to examine if traditional bullying led to cyberbullying. 673 students participated in the survey in grade seven and then retook the survey in grade nine. The results indicated there was no connection between the two forms of bullying, however, students that have been bullied in the past were more likely to be bullied in the future and were more likely to have consistent mental health problems (Hemphill et al., 2015).

The authors concluded it would be important for students to have emotional regulation skills to combat bullying. Some researchers noted that individuals that face controlling behaviors are more likely to be aggressive and angry, which could lead to becoming a bully (Hein et al., 2015; Hemphill et al., 2015). Also, individuals who faced maladaptive behavior were more likely to be bullies or bullied (Hein et al., 2015; Hemphill et al., 2015). Bullying was a common factor linked to mental health concerns, suicide risk factors, poor emotional regulation, and antisocial behavior (Hemphill et al., 2015). Finally, these social environment constraints can affect a student's occupational identity and the ability to participate, engage and perform in meaningful occupations (Kielhofner & O'Brien., 2017).

### **Conclusion**

The increase in mental illness in youth creates a serious public concern. Wyoming is the third leading state in suicide, and suicide is the seventh cause of death in the state, and it is the leading state in suicide deaths in the United States (CDC, 2018; Wyoming Department of Health, n.d.). It appears that Wyoming does not have an established mental health program within the schools, however, the physical health curriculum for Natrona County School District lists mental health based objectives that this program will target (Natrona County School

District #1, 2016). This program will also address goals that are within the suicide prevention plan of the Wyoming Health Department (Prevention Management Organization of Wyoming et al., 2017). Therefore, a mental health-based education module program will create the ability to provide early treatment, prevent suicide, and reduce stigma surrounding mental health concerns and mental illness (Centers for Disease Control and Prevention, 2018; NAMI, n.d.; Wyoming Department of Health, n.d.). The product will aim to establish or increase self-regulation, self-efficacy, and self-esteem because the evidence concluded that students with these skills were more likely to have help-seeking behavior, strong social supports, and resilience creating positive mental health outcomes (Burger et al., 2020; Dimitropoulos et al., 2021; Rice et al., 2021). Therefore, the evidence-based modules in this project will provide students with lifelong skills focusing on coping strategies to reduce anxiety, supportive mental health awareness, and recognition of suicidal behaviors that will result in improved mental health outcomes in Wyoming youth with tools to improve their mental health outcomes.

Occupational therapy can help create and teach a mental health program that addresses volition, personal capacity, habitation, constraints, and barriers within the environment (Kielhofner & O'Brien., 2017). Occupational therapists focus on an individual's occupational identity and competence that encompasses physical, cognitive, and mental abilities to increase occupational performance in their most meaningful everyday occupations (Kielhofner & O'Brien., 2017). Therapeutic interventions will focus on the occupational performance of students which will improve an individual's health and wellness through supportive rehabilitative resources to encourage healthy habits, improve positive behavior and thinking patterns, and develop coping strategies (Cole & Tufano, 2020).

## CHAPTER III

### **Methodology**

This product was designed to create evidence-based preventive school modules with resources to encourage mental health awareness among adolescents. The preventive mental health education modules correlate with a physical education curriculum. However, the product will provide school professionals with a resource focused on adapting the intervention topics in other core classes. The model of human occupation and the theoretical principles of cognitive-behavioral therapy guided this product, *Reading the Warning Signs: Preventive Mental Health Youth Education Program*, along with the design of Coles 7 Steps. The product contains activity-based interventions, worksheets, and educational handouts for teachers, parents, or students.

A completed literature review needs assessment built the basis for this project between May and December 2022. The libraries used to conduct the searches were the University of North Dakota (UND) Chester Fritz Library, School of Medicine and Health Sciences (SMHS), Springer Link, Cumulative Index to Nursing and Allied Health (CINHAL), Science Direct, BioMed Central (BMC) Psychology, and the Wiley Online Library. The search terms used were *mental health, school students, social environment, bullying, preferred student learning, and mental health behaviors*. The following government and professional websites gathered statistics at a state, local, and national levels: the National Alliance on Mental Illness (NAMI), the Centers for Disease Control (CDC), Substance Abuse and Mental Health Services (SAMSHA), Commonwealth Care Alliance, Kaiser Family Foundation, and Mental Health America (MHA). The search terms included *mental health, suicide, and Wyoming*. There were five articles used that were older

than five years that were published between 2012 and 2015. These are articles were warranted because they adolescent risk and protective factors such as bullying, self-efficacy, and mental health literacy in adolescents, which was important information for the development of the literature review and product.

To further the development of this product, the creator received a certification in *"Mental Health First Aid"* and completed three virtual professional development courses. The courses were available and completed through the Society for the Prevention of Teen Suicide, titled *"Act on Facts,"* The Substance Abuse and Mental Health Services (SAMSHA), titled *"Adolescent Depression,"* and The Suicide Prevention Resource Center, titled *"A Strategic Planning Approach to Suicide Prevention."* The training provided relevant information for the product, such as risk and protective factors, warning signs and symptoms of suicide, effective communication involving mental health concerns and challenges, and the development of an effective suicide prevention program. Also, the creator attended a live webinar with Mental Health America (MHA) titled *"Being More Intentional About Our Mental Health,"* which focused on early intervention, identifying those at risk for mental health challenges, and integrated care. Finally, in combination with evidence-based research and professional development, the mentorship through the Natrona County Suicide Prevention Task Force provided valuable information on product development relating to support and barriers of current advocacy efforts within the community.

The literature review needs assessment identified the need for school-based mental health education, emotional regulation, coping skills, and mental health awareness. It also identified current mental health supports and barriers such as staffing concerns, effective

communication, appropriate social support, adolescent risk and protective factors, stigma, and school buy-in. Addressing these needs will promote positive adolescent mental health outcomes. The product will address coping skills, emotional regulation, adolescent development, communication skills, and mental health literacy to reduce stigma and promote early identification and intervention. The resources and handouts will provide information on other school-based mental health programs and toolkits, community resources, and other factors that impact mental health and behavior.

## CHAPTER IV

### **Product**

#### **Description of the Product**

This product, *Reading the Warning Signs: Preventive Mental Health Youth Education Program* is a school-based preventative mental health youth education program that contains strategies to improve mental health outcomes for adolescents. Those with an understanding of mental health can implement this multi-disciplinary product, which has been created to be integrated into physical education classes. The supplies and materials needed for this product should be readily available within a school. The education modules provide adolescents with lifelong skills such as emotional regulation, coping, bully management, and mental health awareness habits, and resources that will provide students with tools to reduce mental health concerns. The product focuses on enhancing self-regulation, self-efficacy, and self-esteem because the evidence from the literature review needs assessment showed that students with these skills were more likely to engage in help-seeking behavior, have strong social supports, and be resilient, all of which help to promote positive mental health outcomes (Burger et al., 2020; Dimitropoulos et al., 2021; Rice et al., 2021).

The goal of this product is to encourage positive mental health outcomes by promoting improved habitation, volition, and performance capacity in lifelong skills focusing on coping strategies, emotional regulation, supportive mental health awareness, recognition of suicidal behaviors, and resources that will provide students with tools to reduce mental health concerns to create a positive occupational identity with participation through competence.

#### **Application of the Theoretical Framework**



This product integrated the model of human occupation (MOHO) and cognitive-behavioral therapy (CBT) in development. The session objectives were created using MOHO constructs. According to Kielhofner and O'Brien (2017), the goal of MOHO is to rebuild an individual's occupational identity through participation and engagement in meaningful occupations. This product provides students with tools and skills to use in their daily lives that will encourage positive roles, habits, routines, and social environments (Kielhofner & O'Brien, 2017).

### **The Model of Human Occupation**

Since the product aims to inspire students to be interested in and value the skills necessary to promote healthy occupational identities and mental health habits and routines in their roles as students, it addresses volition throughout all the sessions (Kielhofner & O'Brien, 2017). The product gives students the ability to identify their personal causation through real-world applications. Personal causation is the student's perspective of their performance, which will help them recognize areas where they can improve in emotional regulation, coping, communication, bully management, and mental health awareness (Kielhofner & O'Brien, 2017).

Habituation shapes a student's occupational identity and performance outcomes through patterns and routines (Kielhofner & O'Brien, 2017). The product aims to help students develop new habits and healthy mental health behaviors. Healthy mental health habits promote positive social interaction and behavior, helping students to develop positive occupational identities (Kielhofner & O'Brien, 2017).

Performance capacity refers to the mental and physical abilities that affect student performance in managing mental health (Kielhofner & O'Brien, 2017). These skills will help

students develop emotional regulation, coping skills, and effective communication to promote positive mental health outcomes. These skills build toward occupational competence in protective factors, such as self-regulation, self-management, self-efficacy, and self-esteem, to encourage positive personal causation and occupational identities. These performance skills are dependent on students' volition to help reduce anxiety, mental health awareness, and recognition of suicidal behaviors.

This product aims to improve the social environments of students by helping students develop effective communication, bully management, and mental health awareness. Positive social environments help students develop protective factors, such as self-esteem, confidence, regulation, and efficacy, that will help build positive social support (Burger et al., 2020; Rice et al., 2021). The social environment plays a vital role in reducing stigma to encourage students to seek help and receive early intervention. The environment also plays a significant role in student occupational identity and engagement in meaningful occupations. Students that are subjected to environmental constraints, such as bullying and maladaptive behaviors, are at risk for mental health concerns (Rice et al., 2021). Therefore, helping students develop healthy mental health skills, habits, and routines will improve their social environments and can encourage positive mental health (Kielhofner & O'Brien, 2017).

### **Cognitive-Behavioral Therapy**

According to Cole and Tufano (2020), cognitive-behavioral therapy aims to identify and improve negative thoughts that impact behavior and emotions, while providing individuals with coping and self-help strategies to increase individuals' ability to function in their daily lives. CBT was used throughout the product to promote positive self-talk, purpose, and hope that can be

referenced as coping mechanisms in challenging times. The product used psychoeducation worksheets and handouts in the sessions to help students modify maladaptive thoughts and emotions that impede engagement in meaningful occupations and daily life. CBT was used to assist students in developing and improving emotional regulation and coping skills to manage challenging life circumstances, while also helping students identify negative or maladaptive thought processes, emotional regulation, and coping mechanisms that impede mental health outcomes. CBT focuses on a problem-solving approach while giving students control over the skills they develop. The product focused on how negative communication, bullying, and limited mental health awareness affect an individual's self-efficacy and self-esteem while providing students with the ability to work through these challenges and reconstruct their negative thinking patterns into positive or realistic thoughts. To encourage positive mental health outcomes, the different CBT approaches used in the program are social, coping, and life skills training, psychoeducation, and self-regulation strategies (Cole & Tufano, 2020).

### **Cole's Seven Steps**

Cole's Seven Steps were used to design the product activity modules in order to serve as a guide for the therapeutic and educational session (Cole, 2018). The seven steps include an introduction, the activity, and a post-processing discussion. The purpose of using this structure was to provide students with an explanation of each session, an activity to develop the skills, and a post-processing discussion to relate the skills to real-world applications. The introduction of each session provides the teacher with a brief description of the activity, behavioral expectations, the learning objectives, and a warm-up activity that will lead to the session activity. Next the activity is described, which includes the skill-learning portion of the session.

After the activity, the post-processing discussion sections take place. The first part includes the students sharing their ideas and perceptions of the activity. Next, the students process their personal experiences and feelings about the activity topic. The students will then be able to generalize, apply, and share what they have learned in the activities. Students can discuss how they can apply the abilities they learned from the activity in their daily life in the application session. The teacher concludes the conversation by summarizing the key points, responding to any last-minute questions, and emphasizing the parts of the activity that students need to remember in their daily life (Cole, 2018).

### **Overview of Sessions**

This product consists of seven sessions that use interdisciplinary language. This product uses the pedagogical approach because it is a method of using and teaching through different learning styles that help students discover and apply the skills learned in the real-world application (Bastable et al., 2020). These sessions focus on emotional regulation, coping skills, effective communication, bully management, mental health literacy, suicide prevention education, stigma, and adolescent development education. Each session will build upon the previous one, helping students develop habits, routines, and skills that can be useful in difficult situations and promote positive mental health outcomes. Along with helping students identify and reconstruct maladaptive or distorted cognitive thoughts, the sessions help them improve their functional daily living, as well as their occupational identity and competence. This product aims to help students build self-efficacy, self-esteem, self-regulation, and self-management, which have been identified as protective factors against challenging life experiences.

### **Session One**

During Session One, adolescents learn the importance of emotional regulation and how it relates to mental health. This session includes identifying and defining emotions, recognizing situations that cause an emotional reaction, and understanding the cause of emotional reactions. Emotional regulation will help adolescents develop healthy habits, routines, and problem-solving skills to handle challenging situations.

### **Session Two and Three**

Sessions two and three focus on identifying, developing, and applying coping skills to challenging times. These sessions also address cognitive distortions that impact mental health. This session provides students with tools for stress management. The students will also be able to apply the coping skills to build an effective safety plan for crisis management.

### **Session Four**

The focus of session four is effective communication, which is beneficial for students to manage bullying, conflict, peer pressure, and promote help-seeking behavior, and create positive social environments. This session also helps students identify negative communication forms that they may be using and ways to improve them. Effective communication can help students develop problem-solving skills and build trusting, positive relationships that can be beneficial for managing mental health. Creating healthy social environments can improve social, emotional, and mental health.

### **Session Five**

Session five focuses on bully management and provides students with a visual of the detrimental effects of saying or doing things that cannot be taken back. This session helps students understand and relate to how bullying can affect their mental health and well-being. It

allows students to express their bullying experiences, as well as how to problem-solve and cope with the conflict. Emotional regulation, coping skills, and effective communication will provide students with bully management skills.

### **Session Six and Seven**

Sessions six and seven both focus on providing students with mental literacy, suicide prevention, and adolescent development education. The purpose of these sessions is to reduce stigma and promote help-seeking behavior by providing students with information to encourage early intervention. The sessions provide students with helpful information on mental health courses, warning signs of suicide, what to ask, and who to notify, which can assist fellow students who may be facing mental health challenges. This session also provides students with information on the differences between mental health concerns and adolescent development. Mental health literacy, suicide prevention, and adolescent development education provide students with the skills to encourage positive mental health outcomes and social environments.

**To view this products entirety, please email the author at *cammy.robertson@und.edu***

## CHAPTER V

### Discussion

The product *Reading the Warning Signs: Preventive Mental Health Youth Education Program* was created to provide students with coping strategies to reduce anxiety, supportive mental health awareness, recognition of suicidal behaviors, and resources that will offer students with tools to reduce mental health concerns. The skills will promote building strong social support, self-esteem, self-regulation, self-awareness, resilience, and help-seeking behavior in students. The need for this product is warranted because it addresses the barriers to positive mental health. The barriers identified were a lack of mental health access, mental health stigma, lack of social support, social isolation, bullying, low self-worth, student expectations, and low motivation. This product is important because Wyoming is the third leading state in suicide deaths and the product aims to provide early treatment, prevent suicide, and reduce stigma surrounding mental health concerns and mental illness to decrease death by suicide (CDC, 2018).

The model of human occupation (MOHO) and cognitive behavior therapy (CBT) were used to guide this product. MOHO was used to identify mental health challenges that affect a student's volition to engage in meaningful occupations (Kielhofner & O'Brien., 2017). Students who struggle to manage their mental health may develop unhealthy habits and behavior patterns. Also, students with limited mental health are likely to have maladaptive thoughts which impact performance capacity. Finally, barriers in the environment can impede student mental health outcomes. Therefore, challenges in volition, habitation, performance capacity, and in the environment can have an impact on students' occupational identity and competence

(Kielhofner & O'Brien., 2017). To create effective interventions that focus on building coping skills, effective communication techniques, and emotional regulation skills, CBT was integrated with MOHO. CBT was applied to the product materials to assist in recognizing and restructuring harmful thought patterns that affect students' mental health into healthy thought patterns (Cole & Tufano, 2020).

### **Implications for practice**

This program is appropriate for occupational therapists to implement because the profession focuses on a client-centered approach that targets the physical and mental wellness of the individual. Occupational therapists receive training in observational techniques that can assist them to recognize students at risk for mental health concerns. Occupational therapists focus on an individual's barriers and supports and help bridge the gap through therapeutic activity, adaptation, and flexibility that can encourage positive mental health outcomes. Finally, occupational therapists focus on the complete individual to identify physical and mental health concerns that may affect the student's role and their ability to participate and engage in meaningful occupations.

### **Recommendations**

It is recommended that this program be used in a fundamental physical education class and instructed by a school professional who has undergone basic mental health training and is comfortable discussing mental health. It is strongly suggested that school personnel participate in continuing education programs in mental health education, which offer additional training in crisis intervention and suicide prevention. This program was intended to be taught to adolescents aged 12-14 for the best mental health outcomes. This age group was selected



because mental health disorders generally begin presenting at age 14 (Kessler et al., 2005). Implementing the product and ensuring the materials are current are important to its sustainability. Future research developments on suicide warning signs, suicide risk factors, and adolescent perspectives on their mental health are encouraged to address the identified research gaps and developing needs of the population. Adolescent mental health challenges are important because it impacts school attainment and performance, emotional regulation, behavioral adjustment and is a growing public health concern that warrants up-to-date and continuation of research (Centers for Disease Control and Prevention [CDC], 2022). It is recommended for best practice that this program is to be implemented by the school occupational therapist because of their significant mental health knowledge base and the professional focus on a client-centered approach. Also, ensuring sustainability requires the feedback from the students, teachers, and parents. Feedback on the product's usability and accessibility can help identify areas for improvement along with monitoring for improved state mental health data to assess the product's preventative potential. Finally, the last recommendation is to advocate for preventive mental health education in a state and a population with significant mental health concerns.

### **Limitations & Strengths**

Different strengths and weaknesses were discovered as the product was being developed. The product's design is one of its strengths. The product education modules are designed in a physically active kinesthetic approach that allows students to have a real-world application of the material to encourage motivation in participation and engagement in the material. There is also post-processing after the activity to share, process, and apply the

information learned in the session to ensure the students understand and will use the material. Another identified strength is the product is inexpensive and uses the what the school should have readily available. The product also addresses Natrona County School District and Wyoming Department of Health suicide prevention objectives. The product is inexpensive because it uses the school's readily available supplies and materials (Natrona County School District #1, 2016; Prevention Management Organization of Wyoming et al., 2017). Any school professional with a foundational understanding of mental health can teach students with this product. Finally, the theories that were chosen were used throughout the product development process. The literature review needs assessment was guided by MOHO and all product material contained integrated references to MOHO and CBT. These theories are used frequently in occupational therapy practices. Finally, MOHO guided a clear view of the volition, habituation, performance capacity, and environmental supports and barriers of the population (Kielhofner & O'Brien, 2017). CBT provided a clear view of the social and life skill approaches, including emotional regulation, coping strategies, effective communication, and maladaptive and restructuring thought processes (Cole & Tufano, 2020).

The major limitation presented in the product was mental health stigma within the state. The state's stigma towards mental health may contribute to the product's lack of implementation. Additionally, because the school district was not involved in the product's development, it is possible that the materials' content will be impacted as a result of a lack of understanding of the educational standards, acceptable materials, and school protocols. Another limitation was a limited research base. There was limited quantitative research on adolescent mental health and the qualitative research was mostly from adult perspective.

Therefore, another limitation noted by the research is a lack of adolescent perspectives on the contributing factors to their mental health. Also, there was limited research on up-to-date mental health risk factors including, the effects of vaping, social media, technology, and early onset of puberty. Another potential limitation indicated by the research is that outdated warning signs of someone who is at risk could lead suicide signs to go unnoticed. Finally, the last limitation is the significant rise of mental health concerns including increased adolescent suicides especially in females.

### **Conclusion**

The high rate of adolescent suicides warrants further research on adolescent mental health and preventive care. The current evidence base shows that unaddressed mental health concerns contribute to lifelong effects on academic performance and attainment, behavioral adjustments, mortality, and morbidity (CDC, 2022; Data Resource Center for Child and Adolescent Health, n.d.; Dupere et al., 2018; Johnson, 2022). This product aims to address mental health concerns adolescents face and to promote positive outcomes. Additionally, it can serve as a starting point for further research in a field that is an alarming public health concern.

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