

THE THEORY OF MATTERING: IMPLICATIONS FOR ADOLESCENT
DEPRESSION AND SUICIDAL IDEATION

by

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DEDICATION

For every young person who has ever felt as though they do not matter, and that the world could go on without you. You are strong. You are brave. **You matter.**

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ABSTRACT

Recent studies have suggested that mattering may influence both self-esteem and depression, and the perception of not mattering can lead to suicide ideation, attempts, or completion. When young people perceive they matter to those in their social environment, that sense of mattering can act as a protective factor. Existing research supports the notion that mattering is salient to adolescent development and, importantly, potentially malleable which could make it a prevention/intervention factor. The current study endeavored to identify contributing factors to adolescent perceived mattering and to test the Theory of Mattering in an adolescent population when predicting mental health outcomes. A secondary analysis on a large adolescent sample (n=6,343) collected in a mid-Atlantic state was conducted. Data were analyzed through a Hierarchical Multiple Regression and Structural Equation Modeling (SEM) to test the Theory of Mattering and to better understand the key variables that contribute to the perception of mattering. Findings support family, school, and peer factors significantly contribute to mattering and the Theory of Mattering held when empirically tested, and significantly predicted both depression and suicidal ideation. The study provides support for several keyways in which public health professionals can bolster adolescent environments to increase perceived mattering and promote the best possible health outcomes for young people.

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LIST OF ABBREVIATIONS

BSU	Boise State University
GC	Graduate College
TDC	Thesis and Dissertation Coordinator
SEM	Structural Equation Modeling

CHAPTER ONE: INTRODUCTION

The concept of mattering, the feeling of being connected and important to others, promises to make an important impact on adolescent health. Mattering is important to both self-esteem and depression and is an important factor in the development of an adolescent's sense of identity, self-worth, and understanding of their direction and purpose in life (Rosenberg & McCullough, 1981; Johnston & Moody, 2013).

Background

Adolescence is one of the most crucial time periods in human development. Researchers now consider individuals who are 10-25 years of age to be in “adolescence,” as puberty is occurring earlier, and individuals are choosing life partners and careers later in life. During adolescence, changes in the brain alter peoples' sensitivity toward the reward system which can increase motivations for pursuing pleasure, relationships, and risks (Steinberg, 2014). In addition to brain development, adolescents are dealing with changes to their physical appearance, physical and cognitive abilities, and social emotional health (Steinberg, 2014). Unfortunately, adolescence is also a time in which a variety of mental health disorders are diagnosed; with the average age of serious mental health problems occurring at age 14 (Steinberg, 2014). Due to the many changes both biological and psychological, adolescents seek new experiences and want to explore their world and their identity. This developmental stage is marked by opportunity but can also be associated with many challenges and risks.

Risk taking is an individual behavior that can be influenced by one's experiences in life (Kaur & Kang, 2019). This behavior is common among adolescents, although the severity of risk varies greatly. The severity of risk, and the types of opportunities adolescents take, can be influenced by personal motivators and self-beliefs (Kaur & Kang, 2019; Weber & Robinson Kurpius, 2011). Adolescents are more likely than any other age group to partake in risks. Experiments with alcohol, tobacco products, and illicit drugs, along with reckless behaviors increase the risks of unintentional accidents and higher rates of mortality and morbidity. Adolescents witness a 200 to 300 percent increase in mortality and morbidity in comparison to childhood (Steinberg, 2014). Accidents, homicides, and suicides account for over half of adolescent deaths.

One promising factor that could buffer those risks is an adolescent's sense of mattering. Mattering is motivational for individuals and influences actions (Rosenberg & McCullough, 1981). There is a notion that people perceive they matter when others attend to them, invest themselves in them, and look to them for resources (Elliot et al., 2004). Perhaps even more relevant to adolescent behavior, is the suggestion that if people do not feel like they matter, they may try anything to matter to others (Elliot et al., 2004). When adolescents perceive that they do not matter, they are more likely to engage in risks that gain the attention of others in hope that someone will show them that they matter. Additionally, we note that the concept of mattering has shown direct influence on self-esteem, which is known to influence depression, which can lead to suicide ideation and attempts and/or completions (Elliot, Colangelo & Gelles, 2005). Associations with the construct of mattering have been linked to a variety of health outcomes including lower depression, increased motivation to learn, and overall health and wellbeing.

State of the Problem

Over time there have been a number of generalizations focused on adolescent risk behaviors and mental health. Research has suggested during adolescence experimentation and risk behavior are relatively transitory by nature and occur prior to damaging behavior being established (Hamburg & Takanishi, 1996; Steinberg & Morris, 2001). Adolescents are still more likely than any other age group to partake in risk behavior (Steinberg, 2014). Such risk can be influenced by one's need to be seen, acknowledged, or as an outlet for stressors. As early as 11 years of age, adolescents begin to form their self-concept and must cope from increased expectations from their social networks (Dixon, Scheidegger & McWhirter, 2009). Unfortunately, adolescence is also a time in which a variety of mental health disorders are diagnosed; with the average age of serious mental health problems occurring at age 14 (Steinberg, 2014). The experiences adolescents undergo, coupled with environmental stressors, can result in psychological distress, such as anxiety and depression (Dixon, Scheidegger & McWhirter, 2009). The prevalence of depression increases during adolescence and continues to increase, though less dramatically, into adulthood (Steinberg & Morris, 2001). Although it has been stated that both anxiety and depression are common among adolescents today, excessive amounts can become harmful and disabling (Dixon, Scheidegger & McWhirter, 2009). Depression and poor mental health can have long-lasting impacts on young people. The betterment of mental health contributors and smoother transitions across life stages needs to be proactive to prevent the worsening of our impacts on future generations (Jain & Tharpar, 2020).

Purpose

One potential mechanism that has been theorized as fundamental to healthy adolescent development is the concept of mattering, one's need to matter to others, be of value to the world around them, and feel significant. The proposed study endeavors to more deeply understand how the construct of mattering may buffer adolescents from the potential negative health impacts of challenges and risks. Although existing research presents a promising case for the impact of mattering on a host of health outcomes, less is known about what contributes to an adolescent's sense of mattering. This study aims to address that gap by investigating the relative contributions of family, peer, and school factors that may bolster adolescents' sense of mattering. Additionally, although promising, mattering is a construct that has not been thoroughly investigated in the research, particularly in the adolescent population. Very few empirical studies, if any, have tested the full theory of mattering and its impact on important outcomes for adolescents. The proposed study seeks to contribute to the research on mattering by empirically testing the theory of mattering, and its impact on the mental health outcomes, depression, and suicidal ideation, in a large data set. Based on what we know about adolescence, mattering could be particularly impactful at this time of life. It seems the perception of mattering could be important, as adolescents may be particularly vulnerable to feelings that they do not matter to their world. Relatedly, adolescents' mental health may benefit from a feeling of connection and importance to others. The concept of mattering has been somewhat neglected in the research, particularly in the past decade. By further researching the theory of mattering we can potentially identify areas of need to

provide effective prevention and intervention strategies for positive adolescent health outcomes.

Rationale

The risk, opportunities, and experiences adolescents engage in have the potential for long term negative effects on a host of health outcomes ranging from persistent substance use disorder, chronic depression, and suicidal ideation. Findings from this study could help us to more closely understand the factors associated with mattering and the ways in which we can build environments for adolescents that increase their sense of mattering. Findings may also support the theory of mattering and provide a greater understanding of the strength of the impact that mattering poses on health outcomes, such as depression and suicidal ideation.

Research Questions

1. What are the unique contributions across the family, peer, and school factors on the perception of mattering in adolescents?
2. Does the theory of mattering hold in an adolescent population when we predict health outcomes such as depression and suicidal ideation?

Definition of Terms

1. *Self-Concept*: Individual perceptions of our personal behavior, abilities, and characteristics. Who you are as a person.
2. *Self-Esteem*: Subjective view about one's self-worth. Confidence in your worth and abilities.
3. *Mattering*: Perception that we are significant to others in our world.

- a. *Awareness*: Being the focus of attention to others. Mattering if others realize that we exist.
 - b. *Importance*: People investing time and energy in one another to prompt their welfare. Mattering to others if we are the object of their interests and concerns.
 - c. *Reliance*: Investing in another person. Mattering to others if they look to us for satisfaction of their needs or wants.
4. *Social Support*: The perception that other people, including family, friends, and teachers provide support that we need and care for you.
5. *Household Structure*: Living with both biological parents or not. May include stepparents, foster parents, biological parent's boy/girlfriend or partner, siblings, stepsiblings, grandparents, aunts and uncles, or friends.
6. *Parental Monitoring*: Parents knowing where their children are and being engaged in their life.
7. *Parent Time*: Amount of quality time parent(s) spends with their child
8. *School Connectedness*: Student's engagement and support towards school decisions or extracurriculars.
9. *Teacher Relationship*: A connection between a student and teacher that is of value, support and respect for one another.
10. *Depression*: A persistent feeling of sadness and/or loss of interest, which gets in the way of performing normal activities.
11. *Suicidal Ideation*: Thought of killing oneself. This may or may not include a plan to commit suicide.

12. *Suicide*: The action of killing oneself intentionally

Study of Limitations

Limitations on this study include a secondary data analysis and reliance on self-reported measures. A secondary data analysis prevents investigating the full range of variables that appear important in existing literature. To fully capture all possible contributing factors to adolescent mattering and test cause and effect relationships reliant on longitudinal data collection, an original study using original data collection would be beneficial. The study relies on self-reported data. Participants may have under or over reported their sense of mattering or other health related outcomes and their perceived social support and involvement in activities.

Still, these findings are important in understanding contributing factors to adolescent perceived mattering. Finally, there is a lack of research on mattering, adolescents, and the specifications of mattering as a theory. This provided further exploration and identification of what specific constructs lead to mattering and what results from them.

Summary

Adolescence is one of the most crucial time periods in human development and experiences during this time can have long-lasting impacts. Understanding mechanisms that link adolescent experiences such as mattering with health outcomes such as depression and suicidal ideation are crucial for public health professionals working to promote better health outcomes for young people. The concept of mattering has been somewhat neglected in recent years by research and public health professionals. We currently have a limited understanding about what factors contribute to the perception of

matter in the adolescent population and how those may impact future health outcomes.

This thesis intends to identify contributing factors to adolescent perceived mattering and to empirically test the theory of mattering using the adolescent relevant health outcomes, depression, and suicidal ideation.

CHAPTER TWO: LITERATURE REVIEW

Adolescence as a Key Developmental Period

Adolescence is one of the most crucial time periods in human development, marked by relatively large changes in physical, social, and cognitive abilities. This time period begins during pubescent development and ends near full adult brain development. The age range associated with adolescence ranges from 10-25 years of age, as children have begun to enter puberty at earlier ages and young adults spend more time before choosing a life partner and career (Arnett, 2018). During adolescence the brain is nearly as malleable as the first five years of life (Steinberg, 2014). The increased neuroplasticity at this time leads to neural pathways that can often last for a lifetime (Steinberg, 2014). The brain changes that adolescents experience alter their sensitivity towards the reward system, pursuit for pleasure and relationships, and the regulatory system (Steinberg, 2014). As the social context widens for adolescents, they are presented with additional challenges and opportunities that can impact their mental and physical health for years to come.

Mental Health in Adolescence

The onset of many mental health disorders are seen between the ages of 10 and 25, with the average age of serious mental health problems occurring at age 14 (Steinberg, 2014). Very few serious psychological problems occur after adolescence (Steinberg, 2014). Evidence indicates that increases in depression and mood disorders are greater for girls than boys and this trend continues into adulthood (Hamburg & Takanishi,

1996). In an article by Jain and Thapar (2020), they noted a sharp rise in girls making efforts to lose weight from early to middle adolescence. This trend caused increased worrying and an inability to sleep among the girls in the study. Research has stated that those in their early to mid-twenties experience significantly more distress from loneliness than any other age group (MacDonald, Kumar & Aitken-Schermer, 2020). The presence of stigma, the need to manage mental health symptoms, difficulty in accessing services, and lack of developmentally appropriate services can make normative adolescent transitions challenging (Sapiro & Ward, 2019). The betterment of mental health contributors and smoother transitions across life stages needs to be proactive to prevent the worsening of our impacts on future generations (Jain & Thapar, 2020).

Depression

Depression at all ages is recognized as a global health concern although less is known about adolescent depression and the impact it may have in development and quality of life. The first onset of depression often occurs in early adolescence after the start of puberty (Alaie et al., 2021). Currently, 1 in 10 adolescents experience a major depressive episode each year in the United States, which can increase the likelihood of life-long health concerns, such as obesity (Rubin et al., 2021). In addition to life-long health concerns, depression impacts academic performance and relationships with family and friends. If left untreated, chronic depression can lead to increased psychological concerns, like substance abuse and undesired behaviors (Defayette et al., 2021). Adolescents who experience depression are more than sixteen times more likely to experience suicidal ideation (Rubin et al, 2021).

Suicide

Suicide continues to rank as the second leading cause of death for adolescents (Rubin et al, 2021). Early adolescent girls, ages 10-14, are undergoing the fastest increasing rates in suicide in the United States (CDC, 2017; Curtin, Warner, & Hedegaard, 2016). There are a variety of expected risk factors for suicide attempts in the literature, including family discord, negative life events, substance abuse, sexual abuse, and academic problems. The concepts of perceived burdensomeness and belongingness are two critical elements in reducing the risk of suicide, both of which can be mediated by the concept of mattering (Drabenstott, 2019). Despite an increase in attention on suicide in the United States, little is known at the adolescent level, and suicide rates continue to remain elevated.

Theory of Mattering

The Theory of Mattering, or an individual's perception that their existence is significant to others, was initially introduced over 40 years ago by Rosenberg and McCullough (1981) who wanted to describe this concept as important and separate from self-esteem and perceived social support because they contribute differently to individual wellbeing. In its early conceptualization mattering was viewed as the direct reciprocal of significance (Rosenberg & McCullough, 1981). They concluded that mattering is a motive and a powerful influence on our actions. Rosenberg further described that mattering can be broken down into two important variations, interpersonal and societal. Importantly, they highlighted that the individual's perception of whether or not they matter, rather than an objective measurement of mattering, is the impactful mechanism potentially related to health outcomes (Rosenberg & McCullough, 1981). Interpersonal

matterings focuses on specific individuals in one's life such as parents and peers, whereas societal matterings involves looking at our place in society and the ability that we can make a difference in the world (Schmidt et al., 2020).

Nearly 20 years after it was first conceived, researchers Gregory Elliot, Suzanne Kao, and Ann-Marie Grant (2004) built on Rosenberg's ideas and further described the theory and empirically validated a measure for matterings. Elliot, Kao, and Grant wanted to better measure and describe the construct. They sought to distinguish it from other similarly related constructs, such as self-esteem or social support. One way they describe matterings is, *"If people do not share themselves meaningfully with us, if no one listens to what we have to say, if we are interesting to no one, then we must cope with the realization that we do not matter. The world not only can but does get along without us, and we are truly irrelevant."* (2004, p 339). Their work helped substantiate the notion that people perceive they matter when others attend to them, invest themselves in them, and look to them for resources (Elliot et al., 2004). Perhaps even more relevant to adolescent behavior, is their suggestion that if people do not feel like they matter, they may try anything to matter to others (Elliot et al., 2004). Elliot, Kao, and Grant outlined three forms of their interpersonal matterings theory: awareness, importance, and reliance (2004).

The first form, *awareness*, is purely cognitive, we are recognizable to others as an individual (Elliot et al., 2004). This suggests, if one is in a social gathering, people will realize if we are present or missing. If we do not feel as though we matter and do not gain the attention of others while present, one may feel invisible or as though they are a "non-person" (Elliot et al., 2004). While most would prefer positive matterings, it is important

to note that cognitive interest can be negative. If someone is receiving negative attention, this is better than no attention at all. For example, if a teenager is defying curfew, they may be attempting to assure that they matter to those caring for them.

Next, they describe *importance*. The idea of importance rests on the idea that we matter to others if we are the object of their interest and concern (Elliot et al., 2004). In 1989, Rosenberg found that adolescents that obtained positive support for academics had higher self-esteem, due to the perceived thought that they mattered to their parents. On the contrary, if an adolescent was punished for academic “failure” they perceived that they matter to their parent(s), even if the outcome for punishment was not happily received (Elliot et al., 2004). Elliot suggests that importance, as a piece of mattering, is linked to the notion of social support (2004). Social support is significant in our daily lives and has a large impact on one’s psychological wellbeing. This support is fundamental to importance: if one believes that others are available to provide us with support that we need, then we perceive that we are important and we matter (Elliot et al., 2004).

Finally, *reliance* is the third interpersonal form of mattering (Elliot et al., 2004). If we matter to others, they look at us to satisfy their needs or wants. This form of mattering suggests the joy we feel when someone needs us, it provides a realization that we matter. We can suggest that if a teen becomes pregnant, there is a possibility that the teen can count on the fact that they will matter to their newborn as they can offer their newborn basic needs (Elliot et al., 2004).

Elliot, Kao, and Grant further solidified mattering as a theory through the construction of a mattering index using a three-factor model for mattering positing

awareness, importance, and reliance as unobserved factors (2004). Through their analysis, they found that social support and mattering are not the same construct but may be positively associated (Elliot et al., 2004). Additionally, they identified that missing someone is not the same as depending on them for resources. This empirical validation of the interpersonal mattering scale found it was related to five constructs: self-consciousness, self-monitoring, self-esteem, alienation, and perceived social support (Elliot et al., 2004). Mattering was positively related to self-esteem, perceived social support, and self-monitoring. It had negative associations with self-consciousness, alienation, and directed factors of self-monitoring (Elliot et al., 2004).

Theoretically, mattering is one of the primary motivators in self-concept (Elliot et al., 2004; Rosenberg & McCullough, 1981). Mattering is important to both self-esteem and depression and is an important factor in the development of an adolescent's sense of identity, self-worth, and understanding of their direction and purpose in life (Rosenberg & McCullough, 1981; Johnston & Moody, 2013).

Contributing Factors to Mattering

There are surprisingly few research studies that attempt to determine the factors that influence adolescent mattering, despite its potential importance for mental health. Because mattering is an interpersonal construct, other relationships and environments that could provide the possibility for connections could be important to study. Additionally, there may be individual level factors that play a role in an adolescent's sense of mattering. Adolescence is a critical time period for human development and the identification of concepts, such as mattering, that promote future success. The following

sections review what is currently known about individual and interpersonal level factors as they relate to mattering.

Interpersonal Relationships

Parent, sibling, and peer interactions have shown to have an influence on adolescent relationships, decisions, and development (Steinberg & Morris, 2001). For example, research has noted that adolescents with parents that were authoritative (warm and firm), showed higher levels of psychosocial maturity than their peers who had been raised by parents who were permissive (loving and few rules), authoritarian (little nurture and high demands), or indifferent (Steinberg & Morris, 2001). Adolescents who are less likely to get help or supervision from their parents or other family members have an increased risk of becoming involved in various types of delinquencies (Steinberg, 2014). Peer and friend relationships also become increasingly important to adolescents as they individuate from their parents and families (Steinberg, 2014). Other significant relationships that have been identified for adolescents include teachers and other school personnel and coaches.

Parents & Family Relationships

In early studies, parental involvement was highlighted as a major contributing factor for mattering in adolescents (Rosenberg & McCullough, 1981). Parenting behaviors signify if an adolescent feels that they matter to their parent(s), particularly in father-child relationships (Vélez et al., 2020). The importance of father-child relationships and parenting interventions can have significant influence on an adolescent's sense of mattering and these connections are a crucial component for adolescent mental health (Vélez et al., 2020). This also suggests that in divorce situations

the support of father-child relationships need serious considerations in custodial agreements. This, however, does not suggest that mother-child relationships are non-important in mattering. Traditionally, adolescents have reported feeling they matter more to their mothers than fathers (Marshall & Tilton-Weaver, 2019). We note this, as adolescent girls tend to feel that they matter more to their parents, specifically mother's, suggesting the social and cultural beliefs of a woman's role in family development (Rayle, 2004). As we look at parental involvement as a factor in mattering, it is worth noting that stepparent involvement in mattering varies based on the biological parent's individual characteristics and not on the stepparent-adolescent relationship (Pylyser et al., 2020).

An adolescent's perceived mattering to their parents can also have an impact on their behavior being delinquent and problematic (Marshall & Tilton-Weaver, 2019). In connection with parents, family and friendship dynamics that include continued support predict a higher sense of mattering. Though this idea is controversial between studies. A study conducted with rural youth by Schmidt, Stoddard, Heinze, Caldwell, and Zimmerman found parent communication and parental involvement both had stronger influence on mattering than friend involvement (2020).

Sibling relationships in adolescents are plagued with emotions marked by conflict and rivalry, but also provide nurturance and social support (Steinberg & Morris, 2001). Positive sibling relationships contribute to an adolescent's school competence, sociability, autonomy, and self-worth (Steinberg & Morris, 2001). However, siblings can influence the development of problem behaviors such as the influence of drug and alcohol use, antisocial behaviors, and risky sexual experimentations (Steinberg & Morris,

2001). There is a clear link between families and mattering across the literature, however, less is known about the specific aspects of parenting that may contribute to mattering.

Peer and Friend Relationships

More recently, research on mattering has expanded to include other relationships such as peers or friends. During the transition into adolescents, adolescents spend an increasing amount of time alone or with their peers and dramatically decrease the time spent with their parents (Steinberg & Morris, 2001). Peer influences can provide both positive and negative academic and social behaviors. We assume that behavior changes are influenced by peer pressure, yet research has shown that adolescents are more influenced due to their admiration and respect for their peers' opinions (Steinberg & Morris, 2001). Friendships are important for psychosocial well-being, particularly during adolescence (Marshall & Tilton-Weaver, 2019). Early studies focused on parenting impacts on mattering, however new studies have investigated the importance of sibling and friend relationships and their importance towards perceived mattering. Between the fourth and seventh grades, friends become as important and supportive to adolescents as parents, and by the tenth-grade friends were viewed to provide more support than parents (Marshall & Tilton-Weaver, 2019). This suggests that friendships play a large role in adolescent mattering. Over a one-year time period, high levels of mattering to friends negatively resulted in higher rates of depressive symptoms and problematic behaviors in adolescents (Marshall & Tilton-Weaver, 2019). On the comparative side, when an adolescent feels, they do not matter to their friends they tend to have relational aggression, using the friendship to inflict social harm, alienation, or social exclusion (Weber & Robinson Kurpius, 2011). A study by Rayle and Chung suggested that friend

support was associated with mattering, much higher than parental support (2007). It is important to note that the limited studies around mattering provide many gaps in understanding as samples vary by age and other demographics such as rurality. One study noted rural youth have less opportunities to connect with peers (Schmidt et al, 2020) which could have an impact on findings. Taken together, there seems to be compelling evidence that peer and friend relationships contribute to mattering.

Teacher and School Relationships

Research also noted contextual factors such as supportive school environments and other related social support may impact a person's sense of mattering (MacDonald, Kumar & Schermer, 2020; Schmidt et al, 2020). Existing studies suggest adolescents that are treated as an important piece of their community and are provided the opportunities for civic engagement and given voice in decision making, show an increased feeling of belonging to the community, resulting in higher mattering (Schmidt et al, 2020). This same study shared that being allowed to make decisions and practice autonomy at school influenced student mattering in a positive manner. It was stated that bolstering protective factors of mattering on campuses can encourage students to be more engaged in extracurricular activities and personal wellness (Flett, Khan & Su, 2019). It was also suggested that a student's academic success, motivation to learn, and engagement in mentorship opportunities improved adolescents' perceived mattering (Johnston & Moody, 2013). A variety of reports have shown that mentorship opportunities and connectedness with school staff and events on campuses can increase student mattering perceptions (Flett, Khan & Su, 2019). When adolescents perceive that they matter this leads to higher motivation to learn as mattering has been suggested as an essential personal motivator

(Johnston & Moody, 2013). When adolescents experience good connections to their school and teachers, they may experience an increased sense of mattering.

Individual Level Factors

A review of mattering research shows there are individual level factors that may impact an adolescent's sense of mattering. Factors such as perfectionism, perceived stigmatization by others, self-esteem and loneliness have been highlighted within the last two decades, along with the psychological factors of an individual's humor styles and their perceived sense of mattering (MacDonald, Kumar & Schermer, 2020). Interpersonal perfectionism has been associated with deficits in mattering and that socially prescribed perfectionism includes a bleak sense of never perceiving the feeling that they matter due to the high standards they set for themselves (Flett et al., 2012). Mental health stigmas have no relation to mattering when an individual is thinking about seeking help, in contrast, if one is being stigmatized by others for seeking mental health assistance their sense of mattering lowers and in return can result in negative consequences (Shannon, Flett & Goldberg, 2019).

Self-Esteem and Mattering

The concept of mattering is important and separate from self-esteem, contributing differently to individual wellbeing (Rosenberg & McCullough, 1981; Elliot et al., 2004). In 1981, Rosenberg examined the connection between mattering and self-esteem, conceptualizing that mattering is its own construct, with a positive relationship to self-esteem. The literature has continued to suggest that mattering and self-esteem are two separate constructs; mattering relies on the perception of others and the way we view our contributions to the world, whereas self-esteem is a personal evaluation of one's

individual feelings about themselves (Marshall, 2001). Adolescents with low self-esteem often view themselves negatively and are self-deprecating in their action and communications, which often prevents them from making positive changes (Watson, 2017).

Gender Differences and Mattering

There are variations in the significance of gender in connection with mattering. In an article by Marshall and Tiltion-Weaver, they suggest that mattering to mothers seems to promote depressive symptoms to boys' overtime with no effect on girls. There are slight differences documented in past research between males and females in relation to their overall health and wellness but limited impacts to gender variation on mental health outcomes. Rosenberg and McCollough's study on mattering focused on the relationships between adolescents' mental health and their feeling towards mattering to their parents (1981). Further studies have indicated that gender plays a role in whether or not a parents' relationship with their children has an impact in the sense of mattering (Rayle, 2004). We have viewed differences in mother-daughter relationships and mattering, suggesting that female adolescents perceive themselves to matter more than their male counterparts to their families (Rayle, 2004). Rayle stated that females' overall wellness scores had mattering to family as a primary predictor and mattering in general second, a high score in mattering was not a predictor for male overall wellness (2004). We can suggest that females feel they matter more in a family due to social gender roles and norms. Though studies have suggested that there are no real differences in sense of mattering between genders (Dixon, Scheidegger & McWhirter, 2009).

Outcomes Associated with Mattering

Mattering has been linked to a variety of health outcomes including lower depression, increased motivation to learn, and overall health and wellbeing. Mattering has been found to be strongly associated with mastery, growth, and autonomy (MacDonald, Kumar & Schermer, 2020). The concept of mattering influences self-esteem, which is known to influence depression, which can lead to suicide ideation and attempts and/or completions (Elliott, Colangelo & Gelles, 2005). An adolescent's perceived mattering to their parents can have an impact on their behavior being problematic and risky suggesting that those who feel they do not matter engage in these behaviors to gain parental attention (Marshall & Tilton-Weaver, 2019). When youth feel mattered in the academic setting there is evidence of long-lasting contribution to society, where they are less likely to inflict abuse or use relational aggression towards others (Weber & Robinson Kurpius, 2011). Mattering is an essential personal motivator and contributor towards positive transitions into adulthood (Rosenberg and McCullough, 1981).

When there is a deficit in mattering, youth tend to be defiant to seek the attention of others. An increased risk of depression and suicide ideation is present and can impact long-term or chronic rates (Elliot, Colangelo & Gelles, 2005) The outcome of overall wellness is impacted when an adolescent scores low on the mattering scale, increasing their risk for future health concerns involving cardiovascular health and obesity (Raque-Bogdan et al., 2011). If a male feels as though they matter less to their mothers, there is evidence to support that they can suffer from chronic depression lasting into adulthood (Marshall & Tilton-Weaver, 2019). The role of mattering and positive and negative outcomes is impacted across a variety of health and academic arenas.

The Role of Mattering in Adolescent Mental Health

The sense of mattering has shown both positive and negative outcomes in mental health diagnoses and ideation statuses (suicidal thought). The concept of mattering influences self-esteem, which is known to influence depression, which can lead to suicidal ideation and attempts and/or completions (Elliot et al., 2005). Another way that mattering can be linked to depression is through feelings of perfectionism (one's concern with striving for perfection by critical self-evaluation), which has been shown to play a role in vulnerability to depression and is linked to perceptions of not mattering (Flett et al., 2012). Mattering can also play a positive or protective role in mental health outcomes for adolescents.

The feeling that one matters may positively impact one's mental and physical well-being (MacDonald, Kumar & Schermer, 2020). When one feels that they matter, higher levels of self-esteem, lower depression, and a greater sense of well-being and overall wellness are noted (Rayle, 2004). Research has shown that mattering can be a protective factor against suicide ideation and a recent studies findings show that mattering plays a role in chronic ideation versus no suicide ideation for adolescent females (Schmidt et al., 2020; Smith, Allan & Bryan, 2020). The feeling as though one matters is linked to decreased attachment anxiety which follows along the lines of decreased depression rates (Raque-Bogdan et al., 2011). Current research suggests that adolescents that score high on mattering scales are less likely to inflict abuse or use relational aggression towards others (Weber & Robinson Kurpius, 2011). This follows through into adulthood. When adolescents feel that they matter they often become more

engaged with their community (Schmidt et al., 2020). The current study includes depression and suicide as the key outcomes in measuring the theory of mattering.

Mattering and Depression

Early studies have provided evidence that mattering is important to depression (Rosenberg & McCullough, 1981). Evidence has accumulated that low levels of mattering are associated with vulnerability to increase levels of depression (Flett, Khan & Su, 2019). Multiple studies have stated that adolescents who believe they matter to their family and friends have less depression (Rosenberg & McCullough, 1981; Elliot et al., 2004; Flett et al., 2012; Vélez et al., 2020). The perception of mattering can predict depressive symptoms, although depressive symptoms may contribute towards the perception that one matters little as depressed individuals often engage in negative thinking (Marshall & Tilton-Weaver, 2019). The perception of mattering and depressive symptoms may evolve simultaneously. The connection of perceived mattering with depression and suicidal ideation is important in recognizing adolescents' health to prevent future negative health outcomes.

Mattering and Suicide

Suicide continues to rank as the second leading cause of death for adolescents (Rubin et al., 2021). To not matter is a devastating realization that may lead to crucial consequences, such as suicidal ideation, attempts, and completions. Mattering has been suggested as an important determinant of suicidal ideation among adolescents and the idea of failing to matter to others creates a vulnerability for thoughts of self-destruction in adolescents (Elliot, Colangelo & Gelles, 2005). Thus, we can predict, when an adolescents perceived mattering decreases, the likelihood for the potential to think about

or attempt suicide increases. On the opposite spectrum, if one's perception of mattering begins to increase the likelihood to ideate or attempt suicide decreases (Elliot et al., 2005). Mattering plays a valuable role in the advancement of our understanding of suicide in adolescents (Drabenstott, 2019).

Summary

In the early to mid-2000's mattering became an emerging concept with the fields of counseling and mental health. Public health has a critical role in this construct that has the potential to impact multiple arenas of health, further research is needed. Currently, we have gaps in measurement methodology, clear understanding of the construct, and prevention and intervention related implications of mattering on the health of adolescents. Currently, there are a few different scales that intend to measure mattering, often with varied associated outcomes. Many of the existing studies on mattering were conducted 20 or more years ago and lack context for today's adolescents.

Research is limited in providing solutions between what causes an adolescent to feel they matter and the factors that can contribute towards positive outcomes or change the trajectory of one's feelings of mattering. A recent study has suggested that mattering can be a significant protective factor for suicidal ideation in females (Smith, Allan & Bryan, 2020). If we can understand the factors that can change one's mattering perspective positively, we could use this knowledge to increase the protective factor of mattering in suicidal ideation and other mental health diagnoses. Fortunately, existing research supports the notion that mattering is malleable, just like an adolescent's brain. Which suggests that health promotion programs could be further developed based on this work to prevent risky behaviors and increased rates of poor mental health outcomes.

Mattering is an important construct with the ability to significantly impact current trends in adolescent health. By researching the family, peer, and school factors that contribute to adolescent mattering we can further examine how to improve mattering outcomes and use mattering as a protective factor in adolescent health, encouraging a healthier generation.

CHAPTER THREE: METHODS

Brief Introduction

Adolescence is a critical time period for human development and can be full of opportunity and risk. The concept of mattering has been associated with self-esteem, depression and other health outcomes (Elliot, Colangelo & Gelles, 2005). Understanding mechanisms that influence mattering during this time period is vital for public health professionals working to promote positive adolescent health outcomes. We currently have a limited understanding about what factors contribute to the perception of mattering in the adolescent population and how those may impact health outcomes. This study intends to identify contributing factors to adolescent perceived mattering and to empirically test the theory of mattering using the relevant health outcome of depression and suicidal ideation.

Research Design

This research was conducted as a Secondary Data Analysis based on a study conducted in a mid-Atlantic state by the Integrated Community Engagement (ICE) Collaborative. Data from Year 1 was utilized for analysis in the present study. Data will be analyzed using a Multiple Regression Analysis (SPSS V22) and Structural Equation Modeling (AMOS). For a visual depiction of the conceptual model, see Figure 3.1.

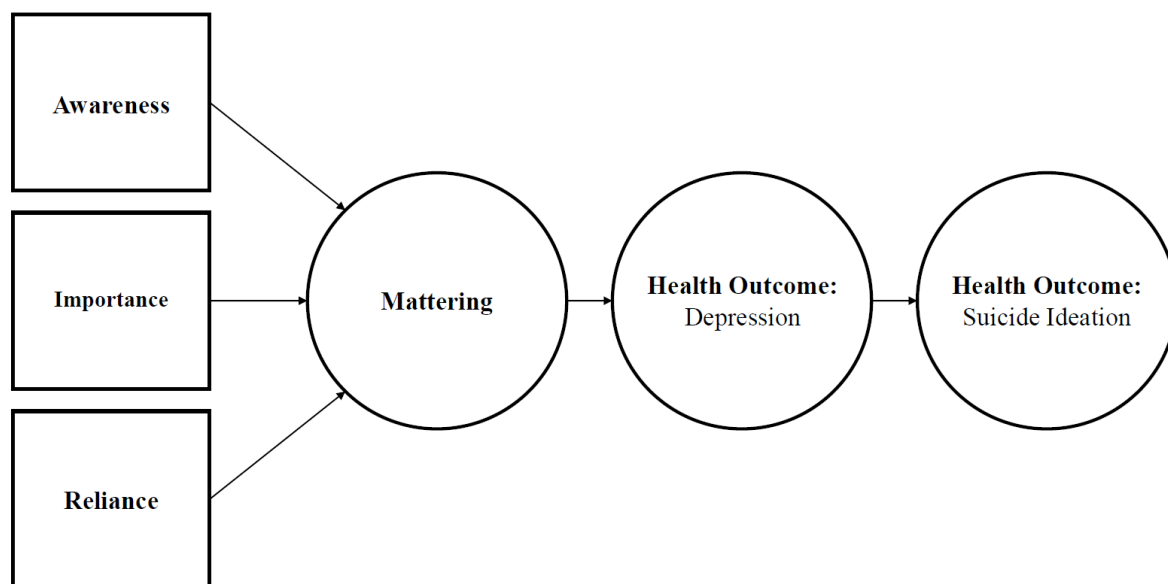


Figure 3. 1 Diagram of Structural Equation Variables

Setting

Data was collected at both public middle and high schools in a mid-Atlantic state in the Fall of 2016. Surveys took place in the students' classroom on a specific day, scheduled by the study coordinators.

Participants

Sample. Participants (n=6,360) were enrolled in both middle and high schools (grades 5-12) in 15 public schools in 3 counties from a mid-Atlantic state (middle school response rate 84.2%, high school response rate 74.0%). The 3 counties were purposefully selected: with one county representing rural, one county representing urban, and one county representing suburban communities.

Data Collection Procedures

Data were collected during the school day with present students using a paper-and-pencil or an on-line format (using Qualtrics), based on school preference. Teachers assisted a county study coordinator to administer the survey. The IRB at a major research

university approved the study. For a full description of the study procedures, please see existing publications (Kristjansson et al., 2013).

Research Variables

This section describes the ways in which we measured the variables included in this study. The study included multiple quantitative measures. Control variables included demographic information for age, gender, race, and household structure. Household structure (living with both biological parents or not) was included among the variables as research studies identified household structure as a potential contributing factor in relation to adolescent mattering outcomes. Self-esteem was used as an additional control for the first research question to validate that mattering and self-esteem are two separate constructs.

Measurement of Variables for Research Question 1: What are the unique contributions across the family, peer, and school factors on the perception of mattering in adolescents?

1. *Control Variables.* The questionnaire included items that asked about participants' age, gender, race, and household structure. Both Gender and Race were included in the analysis. Gender was dummy coded: 0=boys, 1=girls, less than 1% of respondents selected "other" so these few cases were removed from analysis. For race, participants were asked "How do you identify, please select all that apply?" And given the response options; Asian, White, African American or Black, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, American Indian or Native American, and Other (with a fill in option). Race was dummy coded: 0= Other, 1= White. For Household Structure, participants were asked "Which of the following persons live in your home, choose as many options that

apply” and given 19 item options. Household Structure was dummy coded: 1= lives with both biological parents, 0= other.

2. *Self Esteem* (control variable) was measured using 5 items (Rosenberg, 1986). Example: “I feel I have a number of good qualities”. Responses; 1= Strongly Disagree to 4= Strongly Agree. Cronbach’s α : .88
3. *Parental Monitoring* was measured using 7 items from the Icelandic Prevention Approach (Kristjansson et al, 2013). Example: “My parents/caregivers know where I am at night.” Responses; 1 = Applies very well to me, to 5 = Applies very poorly to me. Cronbach’s α : .87
4. *Parent Time* is measured using 2 items. Example: “I spend time with my parents/caregiver outside school hours on working days.” Responses; 1= Almost Never to 5= Almost Always. Cronbach’s α : .78
5. *School Connectedness* was measured using 5 items from the Protecting Adolescents from Harm longitudinal study (Resnick et al., 1997). Example: “I feel close to people at this school”. Responses; 1= Strongly Disagree to 5= Strongly Agree. Cronbach’s α : .89
6. *Teacher Relationship* was measured using 8 items from the School Climate Scale (Zullig, Koopman, Patton & Ubbes, 2010). Example: “Teachers understand my problems”. Responses; 1= Strongly Disagree to 5= Strongly Agree. Cronbach’s α : .94
7. *Friend Support* was measured using 4 items from the Multidimensional Scale of Perceived Social Support (Zimet, Zimet, & Farley, 1988). Example: “My friends

really try to help me”. Responses; 1= Very Strongly Disagree to 7= Very Strongly Agree. Cronbach’s α : .96

8. *Mattering* was measured using 15 items from the General Mattering Scale (Rosenberg & McCullough, 1981). Example: “My successes are a source of pride to people in my life”. Responses; 1= Strongly Disagree to 5= Strongly Agree. Cronbach’s α : .91

Measurement of Variables for Research Question 2: Does the theory of mattering hold in an adolescent population when we predict health outcomes such as depression and suicidal ideation?

1. *Mattering*. This variable was measured using a reduced version of the General Mattering Scale (Rosenberg & McCullough, 1981) that consisted of 15 items. Items included, “It is hard for me to get attention,” and “People do not care about me.” Response options ranged from 1= “Strongly Disagree” to 5= “Strongly Agree.” Elliot’s three subscales (awareness, importance, and reliance) will be measured as separate latent variables in the SEM model. Cronbach’s α : .91
2. *Awareness*. This variable was measured using a reduced version of the Mattering Scale (Elliot et al., 2004) that consisted of 4 items. Items included, “people are aware of my presence”. Response options ranged from 1= “Strongly Disagree” to 5= “Strongly Agree.” Cronbach’s α : .75
3. *Importance*. This variable was measured using a reduced version of the Mattering Scale (Elliot et al., 2004) that consisted of 5 items. Items included, “My successes are a source of pride to people in my life”. Response options ranged from 1= “Strongly Disagree” to 5= “Strongly Agree.” Cronbach’s α : .85

4. *Reliance*. This variable was measured using a reduced version of the Mattering Scale (Elliot et al., 2004) that consisted of 3 items. Items included, “People count on me to be there in times of need”. Response options ranged from 1= “Strongly Disagree” to 5= “Strongly Agree.” Cronbach’s α : .72
5. *Depression*. This variable was measured using 12 items from the SCL90 Clinical Depression tool (Derogatis, Rickels & Rock, 1976). Sample items included “I felt lonely” to “The future seemed hopeless”. Response options ranged from 1= “Never”, 2= “Seldom”, 3= “Sometimes”, 4= “Often”. Cronbach’s α : .96
6. *Suicidal Ideation*. This variable was measured with one item from the SCL90 Clinical Depression tool (Derogatis, Rickels & Rock, 1976). The item asked “I thought of committing suicide” with response options 1= “Never”, 2= “Seldom”, 3= “Sometimes”, and 4= “Often.”

Data Analysis Procedures

Quantitative data will be analyzed using SPSS and AMOS. For research question one, I plan to employ a Hierarchical Multiple Regression analysis in order to determine the strength of relationship between potential contributing family, peer, and school factors on adolescents perceived mattering. For this analysis several independent variables will be assessed as regressed on one dependent variable, mattering. Structural Equation Modeling (SEM) will be used for research question two. SEM requires specification of a model based on theory and research (Hoyle, 1995) and explicitly specifies measurement error, and allows researchers to test models with both observed and latent variables in a single model. The current research hypothesizes the complex influence of the mattering subscales and how mattering will impact the health outcomes

of depression and suicide. Hierarchical Multiple Regression analysis and SEM techniques met the need of the presented research, and all assumptions will be checked prior to running any models in SPSS or AMOS.

Summary

This study will be conducted using a secondary data analysis design. Both Hierarchical Multiple Regression analysis and Structural Equation Modeling will be used to answer the research questions: 1) What are the unique contributions across the family, peer, and school factors on the perception of mattering in adolescents? 2) Does the theory of mattering hold in an adolescent population when we predict health outcomes such as depression and suicidal ideation?

CHAPTER FOUR: RESULTS

Preliminary Analysis

Research Question 1: What are the unique contributions across the individual, family, peer, and school factors on the perception of mattering in adolescents?

A Hierarchical Multiple Regression was calculated to predict the perception of mattering based on parental monitoring, parent time, school connectedness, and friend social support. The overall model was significant ($F(6,352) = 653.53, p < .05$), with an R^2 of .45. Of the control variables, race, gender, and self-esteem were significantly predictive of mattering. Adolescents in a two-parent household (control) were more likely to experience a higher sense of mattering, however, when the variables of interest were added to the model, this relationship was no longer significant. Of the four interpersonal variables, all contributed significantly to the perception of mattering ($p < .05$). Social support-friend ($B = .240$), school connectedness ($B = .153$), parent time ($B = .095$), and parental monitoring ($B = .029$) are significantly associated with higher levels of perceived mattering. Regression coefficients and standard errors can be found in Table 4.2.

Table 4.1 Correlations between variables of interest

	1	2	3	4	5	6	7	8	9	10
1 Matting	1.00									
2 White or Other	.061	1.00								
3 Boy or Girl	.061	.041	1.00							
4 Household Structure	.092	.093	-.044	1.00						
5 Self-Esteem	.584	.066	-.056	.102	1.00					
6 Parental Monitoring	-.226	-.035	-.115	-.123	-.188	1.00				
7 School Connectedness	.447	.117	-.010	.094	.435	-.225	1.00			
8 Social Support-Friend	.509	.133	.149	.103	.443	-.234	.416	1.00		
9 Parent Time	.318	.081	.072	.178	.281	-.320	.259	.277	1.00	
10 Teacher Relationship	.368	.086	-.014	.096	.385	-.229	.680	.372	.275	1.00

Table 4.2 Coefficients and Standard Errors

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	Sig.
(Constant)	19.969	.668		29.908	<.001
White or Other	-.507	.193	-.025	-2.634	.008
Boy or Girl	.762	.193	.038	3.960	<.001
Household Structure	-.050	.192	-.003	-.263	.793
Self-Esteem	1.089	.032	.383	34.522	<.001
Parental Monitoring	-.067	.024	-.029	-2.836	.005
School Connectedness	.319	.023	.153	14.063	<.001
Social Support-Friend	.389	.018	.240	21.455	<.001
Parent Time	.427	.046	.095	9.180	<.001

Dependent variable = Matting
 $R^2 = .45$

Research Question 2: Does the theory of mattering hold in an adolescent population when we predict health outcomes such as depression?

A structural equation model was conducted to examine associations between mattering and the observed variables of depression, and suicidal ideation. Models were evaluated using several fit indices. Hancock & Mueller (2013) assert that in structural equation modeling three types of fit should be evaluated: 1) absolute fit; using SRMR $\leq .08$, 2) parsimonious fit; using RMSEA $\leq .06$, and 3) Incremental fit; CFI $\geq .95$. The first step in a structural model is using Confirmatory Factor Analysis (CFA) to assess whether or not the factor structure indicates the latent constructs as hypothesized. CFAs are presented below for each latent variable in detail.

Mattering. The Theory of Mattering was solidified through the construction of a mattering index using a three-factor model for mattering positing awareness, importance, and reliance as unobserved factors (Elliot et al., 2004). These three factors from the theory were tested in the model to examine if they indicate mattering, to empirically test the theory. For the Mattering latent factor, 3 indicators were included in the CFA, Awareness (RMSEA = .052, NFI = .996, and CFI = .996), Importance (RMSEA = .196, NFI = .847, CFI = .847), and Reliance (RMSEA = .470, NFI = 1.0, and CFI = 1.0). Model fit statistics were assessed. The model produced a RMSEA = .048, NFI = .988 and a CFI = .989. All indicators loaded significantly onto this factor ($p < .001$).

Depression. After testing the three latent factors in the theory of mattering, a structural model was conducted to examine associations between mattering and the observed variable of depression (Figure 1.2). Model fit was good, RMSEA = .060 ($p < .001$), CFI = .991, and NFI = .991. Consistent with study hypotheses, mattering is

associated with the health outcome of depression. This suggests that a positive perception of mattering impacts the health outcome of depression.

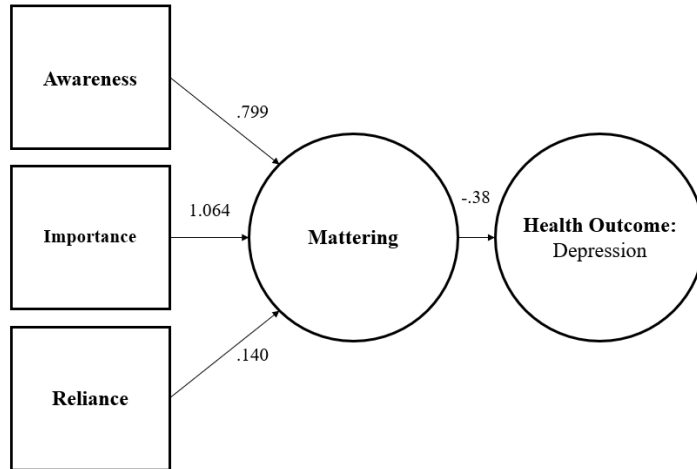


Figure 4. 1 Structural Model on Depression

Suicide Ideation. A structural model was conducted to examine associations between mattering and the observed variable of suicide ideation (Figure 4.2). Model fit was good, RMSEA= .050 ($p < .001$), CFI= .971, and NFI= .969. Consistent with study hypotheses, mattering is associated with the health outcome of depression. This suggests that a positive perception of mattering impacts the health outcome of suicide ideation.

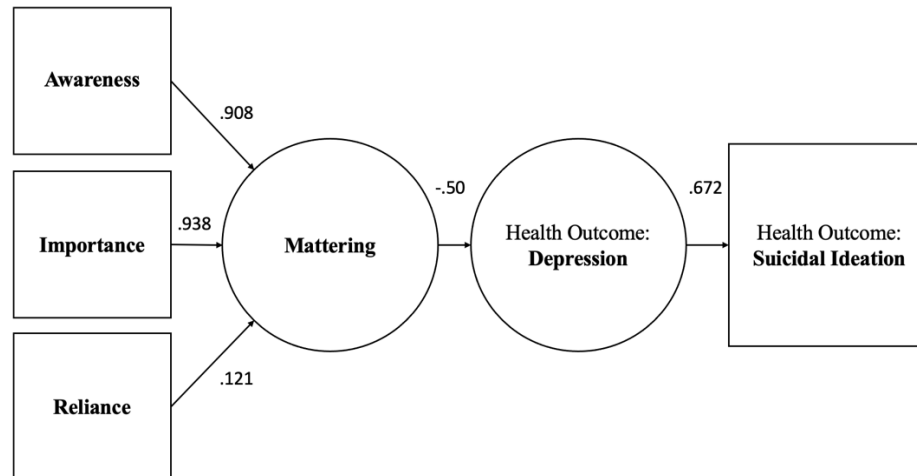


Figure 4.2 Structural Model on Suicidal Ideation

CHAPTER FIVE: DISCUSSION

Assessing the Research Questions

The primary intent of the current study was to identify contributing factors to adolescent perceived mattering and to empirically test the theory of mattering using the relevant health outcome of depression and suicide. The models presented in this study are based on the concept and theory of mattering. Research on the concept of mattering is less common in adolescent populations. It has been mentioned that mattering is protective of negative health outcomes thus understanding factors that influence the perception of mattering during development is important. This study focuses the investigation on early adolescents in a school setting, who have been understudied in mattering research in comparison to young adults, adults, and elderly populations. In addition, the concept of mattering has been predominantly seen in research for clinical and social sciences and has lacked in the public health field. The current study focused on the following three hypotheses each of which were linked to the two guiding research questions:

1. H₁: Mattering will be positively associated with parental monitoring, parent time, school connectedness, teacher relationship, and social support of a friend.
2. H₂: Adolescents with a high perception of mattering will be positively associated with the health outcome of depression.
3. H₃: Adolescents with a high perception of mattering will report lower depression scores, which will in turn be associated with a lower report of suicidal ideation.

All three hypotheses were supported by the study findings and extended the understanding of the unique contributions that influence an adolescent's perceived sense of mattering and the implications mattering has on health outcomes. Findings related to the two research questions are addressed in this discussion. In addition, the strengths and limitations of this study are provided. Finally, implications for future research and practice in this area are highlighted.

Research Question 1: What are the unique contributions across the individual, family, peer, and school factors on the perception of mattering in adolescents?

Three of the four control variables were significantly predictive of mattering. All four interpersonal factors contributed significantly to the perception of mattering including social support-friend, school connectedness, parent time, and parental monitoring. Teacher relationship was originally included as the fifth interpersonal factor, after running the correlations a multi-collinearity issue was identified between school connectedness (.68). Standard practice suggests the elimination of one item, as such teacher relationship was removed.

The most significant predictor of higher levels of perceived mattering in the current model was the social support of a friend. Adolescents who felt that they could rely on their friends for support and could share their joys and sorrows had a higher perception of perceived mattering. This notion is supported by a study by Rayle and Chung that suggested that friend support was associated with mattering, much higher than parental support (2007). It has been stated that between the fourth and seventh grades, friends become as important and supportive to adolescents as parents, the research supports this in our findings (Marshall & Tilton-Weaver, 2019). Friendships are

important for psychosocial well-being, particularly during adolescence (Marshall & Tilton-Weaver, 2019). Because social support of a friend is significant, friendships can be seen as a unique contribution to adolescent mattering and a protective factor against poor health outcomes.

School connectedness was the second most significant factor associated with mattering. Research has noted contextual factors such as supportive school environments and other related social support may have an impact on a person's sense of mattering (MacDonald, Kumar & Schermer, 2020; Schmidt et al., 2020). The study suggests this is true. Additionally, when adolescents perceive that they matter this leads to higher motivation to learn as mattering has been suggested as an essential personal motivator (Johnston & Moody, 2013), so this could be a bidirectional relationship and should be investigated further. When adolescents experience good connections to their school and teachers, these experiences increase their sense of mattering. As discussed previously, the second school factor, teacher relationship, was removed from the analysis. The influence of this relationship should be considered in future studies as a variety of reports show that mentorship opportunities and connectedness with school staff can increase student mattering perceptions (Flett, Khan & Su, 2019). When adolescents perceive that they matter this leads to higher motivation to learn and personal motivation (Johnston & Moody, 2013). Schools play an integral role in the perception of mattering, supporting the best possible outcomes of adolescents.

The study analyzed two family factors, parent time and parental monitoring, both of which showed significance in higher perception of mattering among adolescents. In early studies, parental involvement was highlighted as a major contributing factor for

matter in adolescents (Rosenberg & McCullough, 1981). A study conducted with rural youth found parent communication and parental involvement both had stronger influence on mattering than friend involvement (Schmidt et al.,2020). Our findings support that both parent and friend factors are significant in the perception of mattering. This notion supports further research is needed on the variation between rural and urban settings to determine whether parent or friend involvement/support, if either, has more impact on adolescent perceptions of mattering. Findings continue to suggest that family involvement, through parent adolescent time together and monitoring of adolescent activities may be important for professionals in adolescent settings to build upon to influence adolescent perceptions of mattering.

In summary, the analysis suggests that adolescent social support from a friend, school connectedness, parent time, and parental monitoring make unique contributions to the perception of adolescent mattering. Future research should explore additional contributing factors in an adolescent community, sibling relationships, and further exploration of school impact, including the role of teacher relationships. Additionally, the proposed model should be investigated in future research in hopes to replicate the findings of this study in other cultures and communities. These findings have the potential to empower those working with adolescents in public health settings to develop or reform current programs that promote social connections among peers, teachers, and families.

Research Question 2: Does the theory of mattering hold in an adolescent population when we predict health outcomes such as depression and suicidal ideation?

The goal of this research question was to develop a conceptual model that showcases the theory of mattering, an individual's perception that their existence is significant to others, influence on the predictive health outcomes of depression and suicidal ideation in an adolescent population. The perception of whether or not one matters, rather than an objective measurement of mattering, was suggested as a potential impactful mechanism related to health outcomes (Rosenberg & McCulloch, 1981). Individuals perceive they matter when others attend to them, invest themselves in them, and look to them for resources (Elliot et al., 2004). The theory was further solidified through the construction of a mattering index using a three-factor model for mattering positing awareness (being the focus of attention to others), importance (people investing time and energy in one another to prompt their welfare), and reliance (investing in another person) as unobserved factors (Elliot et al., 2004). The study used the indicators of the concept of mattering, depression, and suicidal ideation to determine the validity of the theory of mattering. Thus, the conceptual model was developed upon existing theoretical and empirical work. The investigation of the associations across the three constructs identifies that mattering significantly influences both depression and suicidal ideation of adolescents as hypothesized.

At the present time, there are no known studies that have examined the theory of mattering on the adolescent health outcomes of depression and suicidal ideation. This research is incredibly important as both depression and suicide rates continue to rise. The influence of the concept mattering may have a significant impact on the development of

adolescent mental health evaluation and programing. Public Health agencies should develop robust intervention/prevention programing that takes the concept of mattering into account. Further research should aim to dive deeper into the influence of mattering on depression, suicidal ideation, attempts, and completions, particularly for underrepresented adolescents.

Limitations and Strengths

The current study includes some limitations, but also represents some strengths in the investigation of the research questions. One major limitation was within the design, using a secondary data analysis. This unfortunately prevented the inclusion of potentially relevant variables such as LGBTQ identity, sibling and special person relationships, mental health history and other potential risk or protective factors identified in the literature review. Secondary data analysis also limited the ability to measure suicidal ideation in a more robust manner, using only one item to indicate the outcome variable was limiting. The decision to use secondary data was influenced by the Covid-19 pandemic and a decrease of accessibility to adolescents in school environments. A real time analysis of current adolescents could support further understanding of what factors influence the perception of mattering. Additionally, the current climate of the United States may show additional protective factors. Further analyses should look at the longitudinal profile of risks and protective factors over time. Strengths of this study include a large sample that allowed for investigating the nuance across unique contributing factors and patterns of association and robust data analysis methods.

Future Research and Practice

As discussed earlier, this study provides support for continued research including additional contributing factors that may influence the perception of mattering.

Additionally, studies should identify the influence of mattering on depression and suicide, particularly for underrepresented adolescents. The study used multiple scales in the survey design. Future studies should evaluate if the scale in which you assess mattering, matters in the adolescent population.

Future research should look specifically at the environments and experiences of adolescents, including the piloting and evaluation of specific prevention and intervention strategies and programs tailored to young people. Current research and trends in social media use, support the notion that social media experiences should be included in adolescent studies. Additionally, the full range of gender identities should be included in future studies as gender minorities will likely also experience the perception of mattering differently than those who identify as a girl or boy. Along with the inclusion of gender identities, a more robust representation of race should be included. Finally, future research should analyze the impact that Covid-19 has had on adolescent perceptions of mattering. Increasing trends among adolescent depression and suicidal ideation, attempts, and completion should motivate robust, population-based studies investigating the potential strengths and *risks* of particular prevention and/or intervention approaches.

Conclusions and Implications

Mattering is an important construct with the ability to significantly impact current trends in adolescent health. This seems particularly important to note given adolescents

have recently witnessed a decrease in, in-person social interaction during the Covid-19 pandemic. Another implication from the findings of this study is that there are many possible points of intervention. Fortunately, an adolescent's sense of mattering is a concept in which we can intervene and create effective change. Public Health professionals, educators, and others who work with adolescents, particularly those hoping to prevent poor health outcomes, like depression and suicide, should consciously work to create cultures and environments in which adolescents feel they are important and have a place in this world. Finally, as the author, it is important to highlight the concerning trends in adolescent suicide rates, particularly in adolescent girls. There is a significant need to communicate that trends in suicide rates are changing and that rates in adolescent populations, especially adolescent girls, are increasing. Findings from this study suggest that we may potentially impact an adolescent's perception of mattering, depression, and suicidal ideation, attempts, and completions by providing tools to influence meaningful connections for young people that show they matter in this world.

We share ourselves meaningfully with you, we listen to what you have to say, you are interesting to us, you matter. The world cannot get along without you, you are truly relevant.

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APPENDIX

Tables and Figures

Table 4.1 Correlations between variables of interest

	1	2	3	4	5	6	7	8	9	10
1 Mattering	1.00									
2 White or Other	.061	1.00								
3 Boy or Girl	.061	.041	1.00							
4 Household Structure	.092	.093	-.044	1.00						
5 Self-Esteem	.584	.066	-.056	.102	1.00					
6 Parental Monitoring	-.226	-.035	-.115	-.123	-.188	1.00				
7 School Connectedness	.447	.117	-.010	.094	.435	-.225	1.00			
8 Social Support-Friend	.509	.133	.149	.103	.443	-.234	.416	1.00		
9 Parent Time	.318	.081	.072	.178	.281	-.320	.259	.277	1.00	
10 Teacher Relationship	.368	.086	-.014	.096	.385	-.229	.680	.372	.275	1.00

Table 4.2 **Coefficients and Standard Errors**

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	19.969	.668		29.908	<.001
White or Other	-.507	.193	-.025	-2.634	.008
Boy or Girl	.762	.193	.038	3.960	<.001
Household Structure	-.050	.192	-.003	-.263	.793
Self-Esteem	1.089	.032	.383	34.522	<.001
Parental Monitoring	-.067	.024	-.029	-2.836	.005
School Connectedness	.319	.023	.153	14.063	<.001
Social Support-Friend	.389	.018	.240	21.455	<.001
Parent Time	.427	.046	.095	9.180	<.001

Dependent variable = Mattering
 $R^2 = .45$

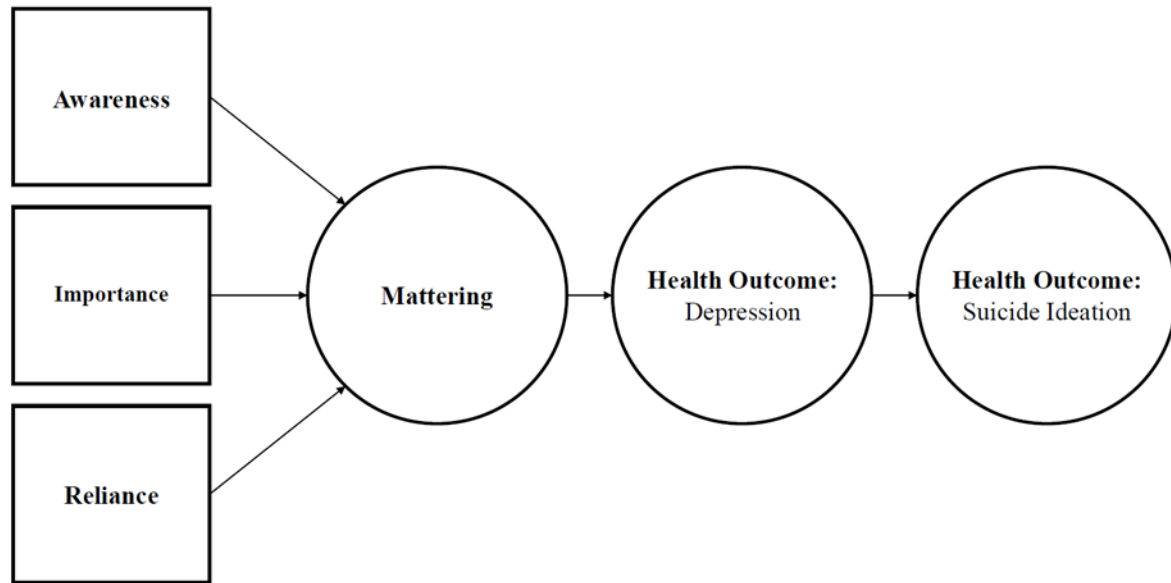


Figure 3.1 Diagram of Structural Equation Variables

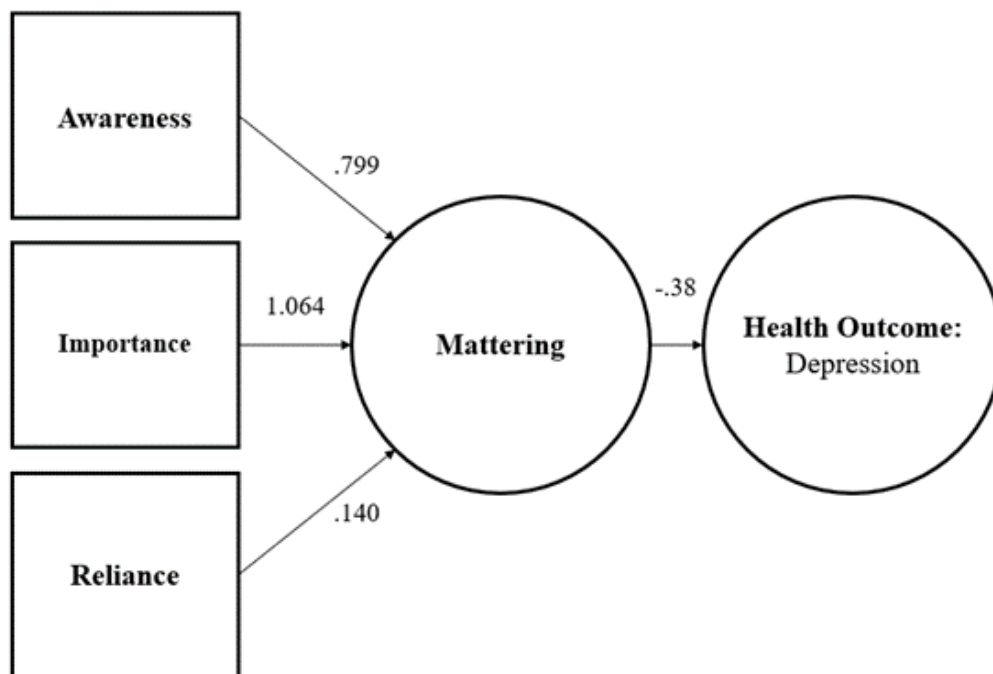


Figure 4.1 Structural Model on Depression

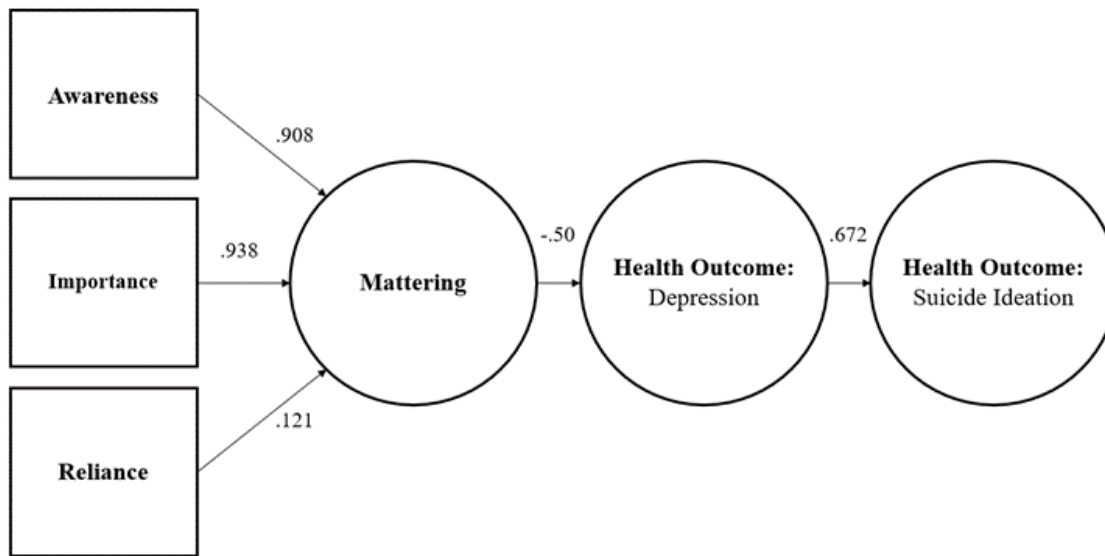


Figure 4.2 Structural Model on Suicidal Ideation

Curriculum Vitae

Josie Lucretia Bryan

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Education

- Boise State University**, Boise, ID Present
 Master of Public Health
 Emphasis- System Analysis and Innovation
 Thesis- The Theory of Mattering: Implications for Adolescent Depression and Suicidal Ideation
 Chair- Dr. Megan Smith, Public Health and Population Science
- University of Idaho**, Moscow, ID 2015
 Bachelor of Science
 Major: Exercise Science and Health

Professional Experience

- St. Luke's Children's**, Boise, ID Oct. 2015-
 Program Coordinator- Pediatric Education and Prevention Programs
- Develop, implement, and evaluate evidence-based child and adolescent injury prevention programs and resources
 - Design engaging presentations, workshops, and written materials regarding pediatric health and prevention methods
 - Develop Idaho's first adaptive car seat evaluation program for children with special health care needs
 - Teach courses to local adolescents and caregivers in the areas of puberty, confidence building, sexual health, and the importance of mental and physical health
 - Supervise the education experience for internships and mentoring within the Pediatric Education and Prevention Program
- University of Idaho- Vandal Health ED**, Moscow, ID Jan.- May 2015
 Sexual Health, Sleep, and Mental Health Intern
- Create, organize, and implement sexual health initiatives, campaigns, and events on the University of Idaho, Moscow campus
 - Assist with monthly outreach campaigns by planning, marketing, and attending events with fellow Vandals

- Collaborate with University of Idaho students to implement an *Enthusiastic Consent* Campaign
- Presented outreach presentation to living groups and clubs about sexual health, drug and alcohol prevention, mental health first aid, overall wellness, and nutrition

Gritman Medical Center, Moscow, ID Oct. 2014- May 2015
Certified Nursing Assistant- Family Birth Unit

- Provided excellent labor, postpartum, and nursery care and safety to patients on the Family Birth Unit
- Floated to the Emergency Department and Intensive Care Unit to aid in patient care and safety as needed

St. Joseph Medical Center, Lewiston, ID Jan. 2013- Oct. 2014
Certified Nursing Assistant- Family Beginnings Unit

- Provided excellent labor, postpartum, and nursery care and safety to patients on the Family Beginnings Unit
- Floated to inpatient mental health to aid in patient care and safety, particularly to woman and children

Professional Committees and Memberships

Nurse Family Partnership, Advisory Board Member, Health District 3, Caldwell, ID
[Learn More](#)

Idaho Child Fatality Review Team, Prevention Specialist, Governor's Task Force, Boise, ID
[Learn More](#)

Idaho Public Health Association, Member, Boise, ID
[Learn More](#)

American Public Health Association, Member, Washington, DC
[Learn More](#)

American Trauma Society, Member, Falls Church, VA
[Learn More](#)

Society for Research on Adolescence, Member, Middleton, WI
[Learn More](#)

Publications

TBA- article publications currently in process

Honors and Awards

Red Wagon Award, St. Luke's Children's Advisory Board, 2019

Highest Scoring Abstract, American Public Health Association, 2021

Professional Speaking Engagements

4. **Bryan**, Smith, Mann, Mutchie, Mujak, & Kristjansson (March 2022). Factors contributing to mattering: the importance of the school context in adolescent health at the Biennial Meeting of the Society for Research on Adolescence, New Orleans, LA.
3. Smith, **Bryan**, Hill, Allan, Mann, & Kristjansson (October 2021). Unpacking suicidal ideation and completion in adolescent girls at the American Public Health Association Annual Meeting, Denver, CO. *Received highest scoring abstract award.*
2. Smith, Allan, & **Bryan** (October 2020). Factors predicting longitudinal changes in suicidal ideation in adolescent women at the American Public Health Association Annual Meeting, virtual.
1. **Bryan**, J. (August 2019). Implementing safe travel needs for special situations at the National Child Passenger Safety Conference, Kidz in Motion, Orlando, FL.

Professional Media Segments

2016

September: [Nine Out of Ten Car Seats in Treasure Valley Not Installed Correctly](#)

2017

March: [Car Seat Safety Demonstration](#)

June: [Car Seat Demo](#)

October: [Trick-or-Treaters take over Harrison Blvd in Boise for Halloween](#)

December: [Holiday Toy Safety](#)

2018

January: [Concussions and Winter Sports](#)

March: [Hearing Safety at Treefort](#)
[Reading is Good Medicine](#)

April: [Window Safety](#)

June: [Drowning Prevention](#)

October: [Halloween Safety](#)

2019

January: [TV Tip Overs](#)

February: [Counterfeit Car Seat Radio](#)

[Counterfeit Car Seat Mother.ly](#)

May: [Look Before You Lock Radio](#)

[Look Before You Lock KTVB](#)

2021

June: [Medication Safety Lockbox- Donation Program](#)

Grants and Fundraising

Delta Airlines Foundation, Delta Airlines

\$25,000

Jersey Auction 2019, Idaho Steelheads

\$14,000

Jersey Auction 2018, Idaho Steelheads

\$15,443

Jersey Auction 2017, Idaho Steelheads

\$14,022

Kohl's Cares 2015, Kohl's Department Store Company

\$53,433

Kohl's Cares 2016, Kohl's Department Store Company

\$53,933

Kohl's Cares 2017-18, Kohl's Department Store Company

\$100,000

Kohl's Cares 2019, Kohl's Department Store Company

\$50,000

Event Programing Impacts 2015, Safe Kids Worldwide

\$700

Event Programing Impacts 2016, Safe Kids Worldwide

\$700

Event Programing Impacts 2017, Safe Kids Worldwide

\$500

Event Programing Impacts 2018, Safe Kids Worldwide

\$300

Regional Impact Grant 2015, Safelite Auto Glass Foundation
\$500

Youthful Driving Initiatives 2019-20, Idaho Transportation Department
\$14,940

Pediatric and Adolescent Mental Health Initiatives- Gift, The Club at Spurwing
\$32,000

Total Awarded: **\$375,471**

Certifications

Basic Life Support for Health Professionals, [American Heart Association](#)
Child Passenger Safety Technician, [Safe Kids Worldwide](#)
Safe Sitter Instructor, [Safe Sitter INC.](#)
Safe Travel or All Children, [Indiana University School of Medicine](#)
Stewards of Children Instructor, [Darkness to Light](#)

References

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 Director of Patient and Family Support Services
iversons@slhs.org, (208) 381-3049

Additional references available upon request