The Correlation Between School-Based Externalizing/Acting Out Behaviors, Belonging, and Opioid Misuse

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Abstract

Opioid misuse is considered a national epidemic (The White House Office of National Drug Control, 2011), however not much is known about school-based behaviors or experiences correlated to opioid misuse. This phenomenological study explored the correlation between externalizing/acting out behaviors in a school setting and opioid misuse and identified sources of participants' feelings of not belonging to school. The purpose of this study was to help identify some school-based correlations to opioid misuse and to identify sources of not belonging at school. The following research question guided this study: To what extent did young adults who have and have not misused opioids experience externalizing/acting out behaviors in high school and in what ways did participants describe feelings of not belonging at school? All of the externalizing/acting out behaviors had a statistically significant positive correlation to opioid misuse, with effect sizes ranging from small to large. This study utilized a survey of 180 participants. Out of the 78 who have misused opioids, 44 were in treatment or recovery groups for Opioid Use Disorder, and 34 ranged in their misuse of opioids, from taking them frequently (daily/almost daily) to seldom (taken once or twice), while the remaining 102 survey participants made up the control group of not misusing opioids. This study brings important information on identifying potential school-based behaviors and experiences correlated to opioid misuse to help guide school staff, school administrators, and policy makers in preventing opioid misuse and having students feel more connected to school.

Keywords: opioid misuse, externalizing/acting out behaviors, school belonging, phenomenological study, correlation

THE CORRELATION BETWEEN SCHOOL-BASED EXTERNALIZING/ACTING OUT

BEHAVIORS, BELONGING AND OPIOID MISUSE

This phenomenological study using quantitative methods explored the correlation between school-based externalizing/acting out behaviors, feelings of belonging, and opioid misuse and also explored sources around feelings of not belonging at school for individuals who have and have not misused opioids. Opioid use and misuse have become a national epidemic (Welsh et al., 2017) with an average of 130 opioid-related deaths a day (Scholl et al., 2019). Externalizing/acting out behaviors consist of behaviors directed outwards towards others. Feelings of belonging at school impact academic success and engagement in school (Korpershoek et al., 2019). This section summarizes the problem and prevalence of opioid misuse and explains the purpose of this study.

Opioids are a class of drugs that include (a) prescription pain relievers such as oxycodone (Oxycontin), hydrocodone (Vicodin), codeine, and morphine, (b) illegal drugs such as heroin, and (c) synthetic opioids such as fentanyl (U.S. Department of Health and Human Services, n.d). According to the National Institute on Drug Abuse (2017), opioid use is the use of opioids prescribed by a doctor to treat a medical condition, while opioid misuse is consuming opioids in a different way or a larger quantity than prescribed or taking opioids without a doctor's prescription. The category of opioids consists of legal and illegal drugs that can help relieve pain, cause sedation, and have a euphoric effect (Welsh et al., 2017). The positive effects of opioids can make them appealing to use and contribute to their addictive nature.

Externalizing/acting out behaviors are associated with substance use (Barnes et al., 2009; Taylor, 2010) and disengagement in school (Catalano et al., 2004; Maddox & Prinz, 2003). Anderson-Butcher et al. (2013) defined externalizing/acting out behaviors as actions directed outward toward people or property and behaviors that harmed others. The externalizing/acting out behaviors in the study consisted of: getting in trouble in class; having

the school call home about troublesome behaviors; lying about something important; skipping class; being in a fight; being bullied; bullying someone; and skipping schoolwork assignments.

School belonging is associated with student engagement and behaviors in school (Hascher & Hagenauer, 2010; Kiefer et al., 2015; Walker & Greene, 2009). Goodenow (1993) provides a widely accepted definition of school belonging as the extent to which students feel included, respected, accepted, and supported by others in school. School belonging, often synonymous with school connectedness, can be seen as a predictor of students' academic, social-emotional, and behavioral outcomes (Korpershoek et al., 2019). Feelings of belonging are a fundamental human need and a sense of belonging to school supports the social emotional needs of students (Allen & Kern, 2017). Feelings of belonging to school are critical for student health and well-being.

Background of the Problem

Opioid use and misuse have become a significant contemporary crisis at both the national (Welsh et al., 2017) and international (Dhalla et al., 2011) level. In 2017, with 47,600 overdose deaths that involved opioids (Scholl et al., 2019), the amount of opioid related deaths surpassed the amount of deaths from motor-vehicle crashes for the first time ever (National Safety Council, 2020). Drug overdoses were the leading cause of deaths for Americans under the age of 50 (Katz, 2017). The death toll of opioids remained similar in 2018 with 47,590 deaths (Goodnough et al., 2019). The Council of Economic Advisers (2017) estimated the total cost of opioid use and misuse in the United States during the year 2015 was $504 billion.

Opioid misuse negatively impacts individuals beyond the risks of overdose and death. People who misuse opioids have a lower quality of life than those with chronic illnesses such as high blood pressure or diabetes (Heslin et al., 2011). The intravenous misuse of opioids results in an increased risk of HIV and/or hepatitis C (Van Handel et al., 2016). Individuals misusing opioids are more likely to (a) be unemployed (Catalano et al., 2011), (b) not be enrolled in school (Catalano et al., 2011), (c) have mood disorders (Catalano et al., 2011), (d) be violent

(Murphy et al., 2014), (e) have a history of arrests (Buttram et al., 2014) and/or (f) commit a property offense (Catalano et al., 2011).

While opioid misuse during adulthood has significant negative repercussions as described above, substance use, including opioid misuse during adolescence poses additional problems interfering with brain development (Feinstein et al., 2012). Substance use during adolescence can (a) increase the risk of serious health and mental health conditions (Feinstein et al., 2012), (b) increase the risk of dependency later in life (Feinstein et al., 2012), (c) result in accidents, injuries, or unintended pregnancies (National Center on Addiction and Substance Abuse, 2011), and reduce levels of academic achievement (National Center on Addiction and Substance Abuse, 2011).

Regular misuse of opioids can lead to dependence and addiction, otherwise known as substance use disorder (National Institute on Drug Abuse, 2017). Substance use disorder is a chronically relapsing disorder characterized by (a) compulsion to find and take the drug, (b) loss of control over restricting consumption, and (c) development of a negative emotional state during withdrawal from the drug (Koob & Volkow, 2010). Substance use disorder is the psychological and physiological state of dependence, requiring on the drug to aid in emotional regulation of feeling calmer, or more energized, or numb (Hari, 2015). Substance use disorder is often associated with the word addiction. The term *addiction* has not always referred to a dependence on drugs as it stems from the Roman's term addictus, meaning a person who defaulted on a debt and became a slave to his creditor (Maté, 2010). During the 17th century, the word addiction described an activity a person was passionate about or dedicated to doing (Maté, 2010).

This study predominantly looked at opioid misuse in three states that have been greatly impacted by the opioid crisis: Maine, New Hampshire, and Vermont. In 2018, these three states were part of the top ten states in the United States with rates of the highest opioid overdose deaths (National Institute of Drug Abuse, 2020). According to the National Institute of Drug

Abuse (2020), New Hampshire had a rate of 33.1 opioid-involved overdose deaths per 100,000 people, Maine had a rate of 23.4, and Vermont had a rate of 22.8. Given the devastating extent of the opioid epidemic on the northern New England states, these three states became the focus of this study.

Purpose of the Study

This study had three different purposes, to: (a) compare rates of school-based externalizing/acting out behaviors for participants who have and have not misused opioids; (b) compare feelings of belonging at school for participants who have and have not misused opioids; and, (c) examine examples of feelings of not belonging at school. The factors leading to opioid misuse, especially within schools, are not widely known. A better knowledge of risk and protective factors for opioid misuse can help educators better support youth. Prior studies (Bradshaw et al., 2013; Luk et al., 2016; Murphy et al., 2015) have acknowledged externalizing/acting out behaviors are a critical risk factor for substance use; however, researchers have not determined if, and how, school-based externalizing/acting out behaviors connect to opioid misuse.

Opioid misuse and dependence can lead to a long-term persistent affliction. A follow-up study 33 years later of almost 600 men dependent on heroin concluded that almost half of the participants had died, most often from drug overdoses and the remaining participants had high rates of disability, psychological distress, criminal involvement, continued opioid misuse, and lower rates of employment (Hser et al., 2001). Another 33-year follow-up study on heroin-dependent males found that while the majority (82.2%) of the participants reported periods of abstinence, only 60.3% of those episodes lasted at least a year (Nosyk et al., 2013). Opioid misuse can become a lifelong problem; therefore, any interventions to prevent misuse are crucial.

Significance of the Study to Education

If school staff and community members had knowledge around identifying risk and protective factors of opioid misuse, they could save lives. Many studies have examined the important role that feelings of connectedness and belong to school plays in adolescents as a protective factor against health harming behaviors such as substance use (Blum et al., 2002; Fleming et al., 2010; Taylor, 2010). However, studies have not specifically looked at how feelings of belonging to school can impact opioid misuse and how externalizing/acting out behaviors relate to opioid misuse. Externalizing/acting out behaviors commonly lead to discipline actions and disparities in discipline practices reduce students' sense of belonging to school (Anyon et al., 2016).

As teenagers, students feel less connected to school (McNeely et al., 2002), a time when many start using substances, including opioids. The National Center for Drug Abuse Statistics (2019) reports that almost half (47%) of all teenagers have used an illicit drug by the time they graduate from high school. Substance use that starts in high school tends to increase and escalate into young adulthood according to a review of 26 studies (Kirst et al., 2014). Emerging adults ages 18 to 25 have some of the highest rates of illicit drug and prescription drug misuse (Diomede, 2015) and opioid misuse (Daniulaityte et al., 2009; Jones, 2013).

With school staff and community members' better understanding how feelings of belonging can act as protective factors for students and that externalizing/acting out behaviors may be a sign of not belonging at schools, students can then receive interventions and supports to help reduce their chances of future opioid misuse. Communities and schools can then work to bolster and strengthen those protective factors. This study aims to provide a better understanding of the connection between externalizing/acting out behaviors and opioid misuse and identify sources of feelings of not belonging at school to help reduce rates of opioid misuse.

Theoretical Frameworks

A person's trajectory of opioid misuse stems from a variety of factors, emotions, and experiences. The researcher used two theories to explain the experiences influencing opioid misuse. First, the brain opioid theory of social attachment describes how opioids play a role in social relationships (Inagaki, 2018). Second, Maslow's hierarchy of needs (1943) describes human motivation as consisting of a hierarchy of needs with a sense of belonging occurring at the third out of five levels of needs. These theories help explain, in part, the trajectory of opioid misuse and link both externalizing/acting out behaviors and a lack of belonging to opioid misuse.

Opioids influence people's emotions because they mimic and resemble naturally occurring chemicals in the brain (Pasternak & Pan, 2013). Opioids are separated into two types: exogenous and endogenous. Exogenous opioids, commonly known simply as opioids, consist of the classification of opioids drugs. Exogenous opioids activate the endogenous opioid peptides occurring naturally in the brain and bind to the brain's opioid receptors (Corder et al., 2018). Opioid receptors in the brain are activated by both the endogenous opioid peptides and by exogenous opioids, such as heroin or prescription pain relievers (European College of Neuropsychopharmacology, 2007). Researchers (Dalgleish et al., 2017; Hsu et al., 2015) have demonstrated the link between social attachment and the brain, as endogenous opioid peptides in the brain show sensitivity to both social inclusion and social rejection.

Maslow's hierarchy of needs theory (1943) described a five-tier model of human needs starting with physiological, then safety, then love and belonging, then esteem, and finally progressing to self-actualization. According to Maslow (1943), these needs cannot be viewed in isolation as every need is related to the satisfaction of prior needs. The need for love and belonging comprises the third level of need (Maslow, 1943). For people to develop self-esteem and be held in esteem by others, the fourth level of need, and for people to develop self-

actualization of self-fulfillment, the highest level of need, they must have a foundation of belonging (Maslow, 1943).

Given the devastating effects of the opioid crisis on youth, families, and communities in New England, schools have the opportunity to join in the prevention efforts with some better understanding of risk and protective factors around externalizing/acting out behaviors and opioid misuse. The brain opioid theory of social attachment helps to explain the trajectory of opioid use, the importance of feelings of belonging, and why adolescents with externalizing/acting out behaviors may be especially at risk for initiating opioid misuse. Maslow's (1943) hierarchy of needs helps to explain the importance of belonging as a fundamental need for success. This study looks to examine any connections between school-based externalizing/acting out behaviors, feelings of belonging at school and opioid misuse and to better understand some potential sources of students feeling like they do not belong at school.

Literature Review

While recent research has examined the trajectory patterns of opioid misuse starting with nonmedical prescriptions leading to overdoses (Guarino et al., 2018), the complete sequence of events, experiences, and emotions leading to the misuse of opioids remain unknown. The literature review focuses on gaining a better understanding of previous research on factors contributing to substance use, and more specifically opioid misuse. The two guiding theories help explain the importance of belonging as a protective factor for opioid misuse. An examination of the literature also demonstrates the interconnected links between: (a) externalizing/acting out behaviors and substance use, including opioid misuse, (b) externalizing behaviors and feelings of school belonging, and (c) feelings of school belonging and substance use.

Theoretical Frameworks

Two theoretical theories frame this research: the brain opioid theory of social attachment and Maslow's hierarchy of needs. These theories help explain the potential trajectory of opioid

misuse by respectively examining the link between the neurobiology of opioid misuse and social connections, and by examining the importance of having feelings of belonging to wellbeing and optimal success.

The Brain Opioid Theory of Social Attachment

The premise of the brain opioid theory of social attachment originates from the findings of emotional and behavioral similarities of social connections and opioid dependency (Machin & Dunbar, 2011). Researchers in the 1970's first discovered the link between the brain opioid system and social connections through studies concluding that low doses of opioids can reduce crying and behavioral agitation during times of social isolation (Panksepp et al., 1978). This conclusion led researchers to suggest connections between the brain opioid system and social bonds (Panksepp at al., 1978). Endogenous opioids in the brain play a significant role in social relationships as evidenced by the following observations: (a) during social separation opioid levels drop, (b) during social interactions opioids are released, and (c) opioids can prompt the initiation of social contact (Nelson & Panksepp, 1998). Social interactions (Inagaki, 2018) and laughter (Manninen et al., 2017) trigger the release of endogenous opioids, both of which reinforce the importance of social bonds.

Opioid consumption causes physiological and emotional deactivation of the naturally occurring opioids in the brain (Schindler et al., 2009), triggering the brain to believe there is an adequate or excessive amount of opioids, thus slowing or stopping the production of endogenous opioids (Kosten & George, 2002). Opioid drugs and endogenous opioids in the brain have many similarities as people who develop a dependence on relationships have the same three phases as that of people developing a dependence on opioids: (a) the initial euphoria leads to seeking out more pleasure, (b) tolerance habituation, and (c) withdrawal which can lead to negative affective states (Machin & Dunbar, 2011). These studies (Inagaki et al., 2016; Manninen et al., 2017; Schindler et al, 2009) suggest that opioid drugs activate the same part of the brain that deals with connections and relationships.

As opioid drugs activate opioids in the brain that stimulate the same feelings of pleasure as social attachment, without adequate social bonds, people may seek opioid drugs to activate that aspect of their brain (Panksepp et al., 2002). Therefore, opioid drugs may be used "as chemical substitutes" (Nummenmaa et al., 2015, p. 6) for attachments. Given that social isolation results in lower levels of opioids in the brain, people often seek social contact to elevate those brain levels (Machin & Dunbar, 2011), however if social contact is not available, or is seen as anxiety provoking, then individuals may seek opioids in the form of substances. When people do not or cannot form connections with others, then they are at an increased risk for opioid misuse (Nummenmaa et al., 2015).

Experiences of unsatisfying relationships or an absence of positive relationships impact the brain's opioid system. Social rejection and social isolation lead to reduced opioid activity in the brain (Inagaki, 2018) as does repeated social stress, predisposing a person to opioid misuse (Chaijale et al., 2013). The baseline availability of opioid receptors in the brain impacts people's social experiences of reacting to the social pain of rejection and to the pleasure of social connections, in addition to predicting levels of laughter (Manninen et al., 2017). These differences in emotional responses and sensitivity to social pains or pleasures stem from variations in the brain's opioid system (Carver et al., 2016) and availability of opioid receptors (Hsu et al., 2013). Researchers have found that people with higher levels of distress intolerance and sensitivity are more likely to misuse opioids (McHugh et al., 2016). The brain opioid theory of social attachment helps explain a potential link between unsatisfying and/or a deficit of social connections to opioid misuse.

Maslow's Hierarchy of Needs

Maslow's (1943) theory of hierarchy of needs supports the premise of the brain opioid theory of social attachment by highlighting the importance of feelings of belonging to one's wellbeing and success. According to Maslow (1987) humans have a hierarchy of needs, with a new level of need emerging only once the previous need is more or less satisfied. Firstly, people

need to have their physiological needs such as food, shelter, and water, met, and if those are mostly satisfied, the next category of safety needs, developing a sense of security in life, emerges (Maslow, 1943). If both the physiological and safety needs are satisfied, the next category of love, belonging, and acceptance needs emerges (Maslow, 1943). Maslow (1943) describes this need as a hunger for affection and a desire for relationships. To accomplish this need, people try to find their social place in the world and make connections with others. Maslow (1987) believed that personal motivation depends on the social environment and other people, deeming a sense of social belonging almost as important as physiological needs and a sense of physical safety.

If people successfully accomplish a sense of belonging, then according to Maslow (1943), they can move on to the next level of need, that of esteem. The esteem need represents a desire for consistent and genuine high evaluation of the self along with others holding them in high-esteem and respect (Maslow, 1943). The esteem need includes the desire for adequacy, achievement, competency, confidence, and prestige (Maslow, 1943). Satisfying the need for esteem leads to developing self-confidence and self-worth; a lack of these needs leads to feelings of inferiority and helplessness (Maslow, 1943). The final and highest level of need, according to Maslow (1943) is the need for self-actualization. Self-actualization explains the ultimate happiness one achieves in life through self-fulfillment and achieving one's full potential (Maslow, 1943).

With a hierarchical model, Maslow (1987) believed that the basic motivation to grow and learn can help people achieve self-actualization; however, that progress may be thwarted by challenges in meeting previous needs, such as not developing a sense of belonging. The fact that esteem and self-actualization needs arise after developing a sense of belonging, indicates that Maslow (1943) believed that a sense of belonging precipitated the ability to develop a positive sense of self and optimal wellbeing. Without a sense of belonging, people may be more susceptible to other challenges and struggles, such as opioid misuse, that impede

their ability to achieve success and wellbeing. Maslow's (1943) hierarchy of needs highlights the importance of having a sense of belonging.

Externalizing/Acting Out Behaviors, Substance Use, and School Bonding

Externalizing/acting out behaviors consist of behaviors directed outward, such as fighting, as imposed to internalizing behaviors that are directed inward, such as withdrawal. Recent studies (Obando et al., 2014; Riehm et al., 2019) have demonstrated a link between externalizing/acting out behaviors and substance use. Obando et al. (2014) reported a positive association between substance use and behaviors of increased hostility, aggression, defiance, deceit, and a reckless disregard for others. Researchers have also highlighted the connection with acting out behaviors and smoking as evident by the conclusions that adolescents with externalizing behaviors were more likely to use e-cigarettes and combustible cigarettes (Riehm et al., 2019).

In addition to a series of externalizing/acting out behaviors linked to substance use, specific behaviors, such as bullying has also been connected to substance use. For both perpetrators and victims, experiences with bullying experiences were associated with increased risk of engaging in substance use (Bradshaw et al., 2013). Bullying victimization is associated with substance use (Luk et al., 2010). Bullying experiences were also associated with increased rates of alcohol use and alcohol-related problems (Luk et al., 2016). Adolescents who are bullied at least on a weekly basis were at increased risk for substance use (Murphy et al., 2015).

Recent studies (e.g. Modestin et al., 2001; Sharma & Kaur, 2017; Shorey et al., 2013) have found a link between externalizing/acting out behaviors and opioid misuse. Modestin et al. (2001), in their study on a group of 100 men with opioid dependency, found increased rates of conduct disorder, frequently understood as a pattern of disruptive behaviors, in this population compared to that of the general population. A study on women with opioid dependency found the majority of those participants experienced a lack of self-control over their behaviors (Shorey et al., 2013). A large scale study of people who misused opioids in Appalachia found rates of

antisocial personality disorder, frequently hallmarked by aggressive acting out behaviors, almost 10 times higher than that in the general public (R. V. Smith et al., 2017). Another study found that compared to a control group, participants with opioid dependency had decreased self-regulation skills (Sharma & Kaur, 2017).

Externalizing behaviors, such as fighting, can result in student behaviors that lead to disciplinary actions which can impact students' feelings of belonging at school. Out-of-school suspensions were negatively associated with school bonding and positively associated with externalizing behaviors (Bottiani et al., 2017). Schools that use traditional forms of discipline, such as suspensions and expulsions can lead students to feeling disconnected to school and that they do not belong at school (Blum et al., 2002), particularly in schools that expel students for minor first-time infractions (McNeely et al., 2002). Student behaviors that result in suspension or expulsion can put students at increased risk for substance use and feelings of alienation from school (American Academy of Pediatrics, 2003). A recent study found that students who received suspensions had increased negative attitudes towards school and negative perceptions of the school climate (Huang & Anyon, 2020).

While behaviors that lead to discipline actions can impact feelings of belonging at school (Huang & Anyon, 2020), feelings of belonging at school impacts the health and wellbeing of students. Student feelings of alienation to school was associated with social problems with others (Morinaj & Hascher, 2019). Through a series of longitudinal studies, researchers demonstrated that school bonding, defined by close affective relationships at school and an investment in school, was significantly negatively associated with substance use, violence, and delinquent behaviors (Catalano et al., 2004). School bonding has been linked to a variety of health and wellbeing outcomes such as substance use and delinquency (Moddox & Prinz, 2006). Students who do not feel attached to school are more likely to skip classes (Hascher & Hagenauer, 2010; Korpershoek, 2019). The benefits of feeling committed to and attached to school is a demonstrated preventative factor for substance use (Su & Supple, 2014; Taylor,

2010; Vidourek et al., 2012), as adolescents who do not feel as if they belong at school may seek escape through substance use (Jamal et al., 2013). School belonging extends as a protection factor against substance use into young adulthood (Catalano et al., 2004; Fleming et al., 2010), demonstrating the importance of feelings of belonging to student wellbeing even beyond high school.

Conclusions

Both the brain opioid theory of social attachment (Machin & Dunbar, 2011) and Maslow's (1943) hierarchy of needs help elucidate the trajectory of opioid misuse by highlighting the importance of belonging as a protective factor for opioid misuse. Previous researchers have demonstrated the following interconnected links: (a) externalizing behaviors/acting out behaviors were risk factors for substance use and opioid misuse (Barnes et al., 2009; Bradshaw et al., 2013; Murphy et al., 2015; Sartor et al., 2014; Taylor, 2010), (b) externalizing behaviors can lead to discipline actions that can impact feelings of school belonging (Bottiani et al., 2017; Huang & Anyon, 2020), and (c) feelings of school belonging can impact substance use and acting out behaviors (Korpershoek, 2019; Moddox & Prinz, 2006).

Methodology

In this phenomenological study, the researcher compared the extent to which young adults who have and have not misused opioids experienced school-based externalizing/acting out behaviors and feelings of belonging to school. This study also explored sources of which participants described feelings of not belonging at school.

Research Questions and Hypothesis

This phenomenological study explored two correlations: the correlation between externalizing/acting out behaviors in a school setting and opioid misuse and the correlation between feelings of belonging at school and opioid misuse. This study also identified sources of participants' feelings of not belonging to school. The research questions were: 1. To what extent did young adults who have and have not misused opioids experience externalizing/acting out

behaviors in high school? 2. To what extent did young adults who have and have not misused opioids experience feelings of belonging to school? 3. In what ways did participants describe feelings of not belonging at school?

Based on the literature reviewed, the researcher hypothesized: 1. There would be a correlation between externalizing/acting out behaviors and opioid misuse. 2. There would be a correlation between feelings of not belonging and opioid misuse. 3. There would be a negative correlation between a positive sense of belonging to school and opioid misuse. The researcher's null hypotheses would show no differences between the participants' experiences with externalizing/acting out behaviors and opioid misuse; and show no differences between the participants' experiences with feelings of not belonging and opioid misuse, and no difference with feelings of belonging and opioid misuse, indicating no relationship between the presence or absence of those behaviors or emotions and opioid misuse.

Purpose

Given the devastating effect of the current opioid epidemic with an average of 130 opioid-related deaths a day (Scholl et al., 2019), this study sought to identify potential school-based behaviors and experiences correlated to opioid misuse to hopefully reduce youth from initiating opioid misuse and preventing further overdose deaths. The secondary purpose of this study was to identify sources of not belonging in schools as feelings of connection and belonging to school is a proven protective factor against health-harming behaviors (Centers for Disease Control and Prevention, 2015; Su & Supple, 2014; Vidourek et al., 2012).

The researcher intended the results in this study to aid in promoting the wellbeing of youth in schools. By better understanding a potential connection between externalizing/acting out behaviors and opioid misuse, school administrators and teachers will have better knowledge on how to target opioid prevention. By better understanding potential sources of feeling disconnected to and not belonging at school, school administrators and teachers may better help students feel more connected to and belonging at school. Given that substance use that

starts in high school tends to increase and escalate into young adulthood (Kirst et al., 2014) and that young adults ages 18 to 25 have some of the highest rates of opioid misuse (Daniulaityte et al., 2009; Jones, 2013), this study provides critical information about the role that school systems and educators can play in preventing opioid misuse.

Research Design

This research used a phenomenological lens to describe the lived experiences of a group of people by reducing participants' experiences to a description of the essence of the phenomenon (Creswell, 2013), in this case externalizing/acting out behaviors, feelings of belonging, and opioid misuse. A phenomenological approach captures a common meaning of a shared experience (Creswell, 2013) which helps to best describe the overall experiences of externalizing/acting out behaviors and opioid misuse. This approach helps to bring meaning to an experience based on a multitude of perspectives.

Methods

The method for collecting data for this study consisted of using a survey to collect the data. In order to access a larger number of participants, this research relied on the use of a survey. Surveys allow researchers to collect self-reported data targeted at a large sample size. The use of a survey helps researchers better understand trends amongst collective responses. The researcher used the questions around externalizing/acting out behaviors from the Community and Youth Collaborative Initiative School Experiences Surveys (Anderson-Butcher et al., 2013) and added one additional question about skipping class. The survey also included three questions about feelings of belonging at school and included an open-ended question to identify sources of not belonging at school. The majority of the participants accessed the survey online. The 44 the participants in treatment/recovery centers used paper copies to complete the survey. The researcher analyzed the survey through descriptive statistics and correlational analysis and coded the open-ended question to uncover the major themes around sources of not belonging in schools.

In this phenomenological study, the researcher used a survey that contained Likert-scale questions, one open-ended question, questions on demographic information, and questions to determine any opioid misuse. Surveys allow for many participants to engage in the study. Surveys allow for researchers to uncover correlational relationships among social phenomena to have numerical data represent real life experiences (Gall et al., 2007). In this study, the researcher used a survey with questions about externalizing/acting out behaviors in schools and feelings of belonging to school to measure the potential relationship between the set of behaviors and feelings and opioid misuse.

The researcher used correlational analysis to examine the survey data. Correlational research seeks to figure out if two variables are connected to each other and in what ways they are connected. Correlational studies measure the direction and degree of the relationship between variables (Gall et al., 2007). In this study, the correlation analysis measured whether the independent variables were connected to the presence of opioid misuse or no misuse, and also measured the direction of that connection.

Participants and Setting

All of the participants voluntarily engaged in this study. This study had a total of 180 participants, with 102 participants who had not misused opioids and 78 who have misused opioids. Out of the 78 who have misused opioids, 44 were in treatment or recovery groups for Opioid Use Disorder, and the remaining 34 ranged in their misuse of opioids, from taking them frequently (daily/almost daily) to seldom (taken once or twice).

All of the participants were 18 years old and older, with an average (mean) age of 37. Demographic data on the participants indicated that 71% identified as "she", 92% identified as white, 58% lived with both parents during high school, 64% never moved homes during middle or high school, and 16% of all participants received special education services. The researcher used receiving free or reduced-price lunch or breakfast at school as the socioeconomic indicator

for this study and 30% of participants reported receiving free or reduced price lunch or

breakfast.

Participants completed the survey virtually or at a treatment/recovery center for opioid

use disorder. The researcher used purposeful convenience sampling to locate participants who

have misused opioids, purposefully seeking out convenient to reach treatment/recovery sites.

Two treatment/recovery centers participated in this study, one in New Hampshire and one in

Vermont. The additional participants were all recruited through social media. The researcher

requested various social media groups targeted at people in recovery and other

treatment/recovery centers in Maine to share the survey virtually. The researcher used a

snowball sampling approach through social media to target additional participants who have and

have not misused opioids.

Results

The researcher conducted a Spearman correlation analysis to examine the relationship

among survey questions to opioid misuse or no misuse. A correlation analysis uses the

correlation coefficients to indicate the direction of the relationship through a positive or negative

value. A positive correlation coefficient indicates that the variables move in the same direction

(i.e., they both increase) while a negative correlation coefficient indicates the variables move in

opposite (i.e., one increases while the other one decreases) (Urdan, 2017). In this study, a

positive correlation indicated a correlation to not misusing opioids, while a negative relationship

indicated a correlation to misusing opioids.

Correlation coefficients also measure the strength of the relationship. A correlation

coefficient of .00 indicates no relationship, thus supporting the null hypothesis, while a

coefficient of -1.00 or 1.00 indicates an exact relationship (Urdan, 2017). The researcher used

Cohen's standard to assess the strength of the relationship with a coefficient (r_s) between +/- .10

and .29 representing a small effect size, a coefficient of +/- .30 and +/- .49 representing a

moderate effect size, and a coefficient of +/- .50 or larger representing a large effect size

(Cohen, 1988). The researcher conducted the Spearman correlations based on an alpha value of 0.05; therefore, a *p* value of 0.05 or less indicated a statistically significant correlation. All the survey questions produced a statistically significant correlation to opioid misuse.

Correlation Between Externalizing/Acting Out Behaviors and Opioid Misuse

To answer the research question about the extent to which school-based externalizing/acting out behaviors were correlated to opioid misuse, the survey looked at 9 aspects of externalizing/acting out behaviors at school. Table 1 displays the correlation between externalizing/acting out behaviors at school and opioid misuse. All nine behaviors yielded a statistically significant (p≤.013) relationship to opioid misuse, indicating that school-based externalizing/acting out behaviors and opioid misuse are correlated to each other.

Table 1
Spearman Correlation Results: Externalizing/Acting Out Behaviors and Non-Misuse of Opioids

Question	Effect Size	r_s	Lower	Upper	*p*
School called home because of troublesome behaviors	Large	-0.54	-0.64	-0.43	< .001
Skipped class	Large	-0.54	-0.64	-0.42	< .001
Was in a fight	Moderate	-0.48	-0.59	-0.36	< .001
Skipped schoolwork assignments	Moderate	-0.48	-0.59	-0.35	< .001
Got in trouble in class	Moderate	-0.47	-0.58	-0.35	< .001
Lied about something important	Moderate	-0.43	-0.55	-0.30	< .001
Was bullied at school	Small	-0.23	-0.37	-0.08	.003
Bullied someone at school	Small	-0.19	-0.34	-0.04	.013

N= 165

A significant negative correlation with a large effect size was observed between not misusing opioids and having the school call home due to participants getting in trouble for their behavior (r_s = -0.54, *p* < .001). A significant negative correlation with a large effect size was observed between not misusing opioids and skipping class (r_s = -0.54, *p* < .001). A significant negative correlation with a moderate effect size was observed between not misusing opioids and being in a fight during high school (r_s = -0.48, *p* < .001). A significant negative correlation with a moderate effect size was observed between not misusing opioids and skipping

schoolwork assignments (r_s = -0.48, p < .001). A significant negative correlation with a moderate effect size was observed between not misusing opioids and getting in trouble in class (r_s = -0.47, p < .001). A significant negative correlation with a moderate effect size was observed between not misusing opioids and lying about something important (r_s = -0.43, p < .001). A significant negative correlation with a small effect size was observed between not misusing opioids and bullying someone at school (r_s = -0.19, p = .013). A significant negative correlation with a small effect size was observed between not misusing opioids and being bullied at school (r_s = -0.23, p = .003).

All aspects of these school-based externalizing/acting out behaviors had a statistically significant correlation to opioid misuse. The correlational analysis indicated a negative relationship with these behaviors and not misusing opioids, meaning that all aspects of these school-based externalizing/acting out behaviors were correlated to opioid misuse. The results suggest that the presence of externalizing/acting out behaviors in school is a potential signal of a student needing additional support and help.

Correlation between Belonging and Opioid Misuse

To answer the research question about the extent to which feelings of belonging at school are correlated to opioid misuse, the survey looked at three aspects of belonging at school, feeling lonely, having supportive peers, and overall feelings of belonging at school. Given the common definition of school belonging as students feeling included, accepted, and supported by others in school (Goodenow, 1993), questions on feeling lonely, supportive friends, and overall belonging were included to measure feelings of belonging at school. Table 2 displays the correlation between feelings of belonging at school and opioid misuse. All three aspects of belonging yielded a statistically significant (p≤.001) relationship to the variable of opioid misuse.

Table 2

Spearman Correlation: Sense of Belonging and Non-Misuse of Opioids

Question	Effect Size	r_s	Lower	Upper	p
Belonged at school	Moderate	0.38	0.24	0.50	< .001
Supportive peers	Moderate	0.31	0.16	0.44	< .001
Felt lonely	Small	-0.25	-0.39	-0.10	.001

Note. n = 164.

A significant correlation with a moderate effect size for not misusing opioids was observed for feelings of belonging at school (r_s = 0.45, *p* < .001). A significant correlation with a moderate effect size for not misusing opioids was found for having supportive peers at school (r_s = 0.31, *p* < .001). A significant negative correlation with a small effect size for not misusing opioids was found for feeling lonely (r_s = -0.25, *p* = .001), indicating that feelings of loneliness were correlated to opioid misuse. Overall feelings of belonging at school and having supportive peers at school were correlated with an increase in not misusing opioids and an increase in feeling lonely during high school was correlated to an increase in opioid misuse.

Sources of Feelings of Not Belonging at School

The survey question: What are some things that made you feel like you did not fit in with people (e.g., peers, teachers) or did not belong at school, was used to answer the research question about identifying sources of not belonging at school. 123 participants responded to this open-ended question. The researcher coded the sources into major themes. The major themes were separated into two parts, school-based (Table 3) and outside of school (Table 4).

Table 3 displays the school-based sources of not belonging at school as separated by the following categories: (a) peers; (b) teachers, (c) academics, and (d) extracurricular activities. For the theme of peers, participants discussed how peers and classmates contributed to feelings of not belonging at school. Participants discussed instances of not having any friends, being physically and/or emotionally bullied, not being part of certain social groups/cliques, and having to deal with peer pressure or peer drama. For the theme of teachers, participants discussed how teachers and educational staff contributed to feelings of not belonging at school.

Table 3

Open-Ended Results for School-Based Sources of Belonging at School

Peers	I was a loner and had no friends could not get close to anyone
	I didn't use substances and wasn't included or involved in many social aspects of my high school.
	Teachers never listened when I complained about bullies, I'd end up having to fight the bullies myself, most of the students around me picked on me and called me names and would try to fight with me
	I was frequently bullied due to my shyness, my intelligence, and unpopular status among classmates
	Consistently bullied through middle school- high school which ultimately I started to throw hands: no talking; just fighting! *(anyone who even looked at me wrong)*
	The "popular" crowds and people who were cliquey
	I was not popular and didn't play sports
	Peer pressure, relationship drama, weekend parties I was not allowed to be at.
Teachers	Ironically, the same things that made me feel like I belonged sometimes made me feel like I didn't- like when teachers would public ally give praise for doing well.
	Everyone else at my public school cared about homework and I would get shamed by teachers for not doing it
	Homophobic comments from my peers, teachers, and adult leaders.
	I did not think adults cared or noticed how I was doing or if I was there or not.
	Guidance telling me I didn't have problems compared to other kids
	Clique behavior & Teachers participating in it, Teachers being more interested in students that had academic potential, Teachers being dismissive when I did attempt to catch up or when I was feeling particularly depressed
	I worked hard to earn As and Bs in most classes. I did not cheat or lie, and was frustrated when peers cheated on tests and mistreated others - and many teachers would 'look the other way' to avoid the confrontation.
Academics	Studying more than everyone else.
	Not being in advanced classes Not being good at certain subjects like others
	Kids picked on me because I had a learning disability which made me have to study harder or have trouble in school. I sometimes felt stupid
	Grades, always criticized for missing my potential,
	Being a 'smart kid' sometimes made me an outsider; I didn't do any school sports
	I honestly hated schoolwork and didn't see the point of it. Everyone else at my public school cared about how and I would get shamed by teachers for not doing it
Extracurricular Activities	Trying out for sports wasn't encouraged if you didn't fit a particular model. It was too intimidating to try
	I was not popular and didn't play sports
	liked different things than others

N= 123

Participants discussed instances of teachers using private praise or public praise, sharing their personal divisive beliefs, not caring about student(s), and having favorite students. For the theme of academics, participants discussed how engagement or disengagement in academics contributed to feelings of not belonging at school. Participants cited examples of feeling like they did not fit in at school due to studying more than others, having a learning disability, earning high or low grades, and hating schoolwork. Participants discussed the theme of extracurricular activities as the final theme of school-based sources that contributed to feelings of not belonging at school. For the theme of extracurricular activities, participants discussed not being involved in sports and having different interests than others. Participants identified sources of not belonging to school for each of the major aspects of school experiences of peers, teachers, academics, and extracurricular activities.

In addition to identifying school-based sources that contributed to feelings of not belonging in school, participants identified sources outside of school such as: (a) their personal identity, (b) family, and (c) community as demonstrated in Table 4.

For the theme of personal identity, participants discussed how their own identities and characteristics contributed to feelings of not belonging at school. Participants discussed how their own emotions, beliefs/choices, appearances, lack of self-esteem, and characteristics such as race/ethnicity, gender, and sexuality influenced feelings of not belonging at school.

For the theme of family, participants discussed how their family members and family environment contributed to feelings of not belonging at school. Participants cited examples of how poverty, moving, family structure, and challenging home lives impacted how they fit in at school. For the final theme, community, participants discussed how their community contributed to feelings of not belonging in school. Participants cited examples of being new in town and being a bus student impacted feelings of not belonging at school.

Table 4

Open-Ended Results for Outside of School Sources of Belonging at School

Personal	My anxiety made me feel like an outsider, especially because I did not know I had anxiety, or why I struggled to focus or feel comfortable at school.
	I was mature, didn't party or drink, didn't dress particularly fashionably.
	Not being "cool", not sexually active or comfortable around drugs and alcohol.
	Being kind
	My size and dressing athletically. I was always called fat and a lesbian
	Weight, intelligence (as a negative), outspoken feminism/bisexuality, lack of "coolness"
	Not feeling thin or pretty enough.
	My overwhelming shyness and inability to speak to people
	I didn't have the same clothes oh and I was gay and closeted
	Some groups were based mainly on ethnicity, I fit in with the kids in my ethnic group
Family	Not owning a car. The fact that my family rented a small apartment and then a house.
	I was a less financially stabilized student at an expensive boarding school and I knew it. Being on scholarship made me feel like I had to work harder to prove I belong
	I moved from the East coast to the Midwest & found the differences in personal interactions, interests, & life style curious.
	both parents were dead, lived with other family
	parents being divorced and I lived with grandma almost an hour from school and had to get driven to my bus stop in the different town
	My home life. If people knew what was going on at home I probably would've felt completely ostracized.
	The main reason I felt I did not fit in was my past. My parents being active addicts, living with someone other than my parents. Most of the kids who I attended school with had normal loving homes with one or both their parents. I wasn't even sure where my mother was at that stage of my life and that was difficult to explain to most of my peers.
Community	My high school was small and generations of families go through school system. Since my family moved into town, felt like an outsider at times within the larger community
	Being a bus student and not living close enough to the school to participate in after school activities, both my parents worked and I was expected to care for my three younger siblings.

N= 123

Summary/Conclusions of Results

The correlational analysis identified some potential signs of struggling students. All eight aspects of school-based externalizing acting out behaviors were positively correlated to opioid misuse. These behaviors correlated to opioid misuse of the school calling home due to troublesome behaviors, skipping class, getting in a fight, skipping schoolwork assignments, getting in trouble in class, lying about something important, being bullied, bullying someone else, and feeling lonely are all potential signs of struggling students. Overall feelings of belonging at school and having supportive peers at school were identified as potential protective factors. The correlational analysis indicated that while school-based externalizing/acting out behaviors were correlated to opioid misuse, feelings of belonging to school and feeling supported by peers were correlated to not misusing opioids.

The second part of the study addressed the research question on identifying sources of participants' feeling of not belonging at school. Participants identified four school-based sources of peers, teachers, academics, and extracurricular activities. Participants also identified three sources outside of school of personal identities, family, and community, which contributed to sources of not belonging at school. The analysis of the open-ended question suggests that aspects of students' experiences in school and their lives outside of school can impact feelings of belonging to school.

Discussion

The results of this study suggest that school-based externalizing/acting out behaviors and feelings of belonging to school are correlated with opioids misuse. The correlational analysis of the survey identified some signs of student struggles that may put them more at risk for opioid misuse, however this is not an exhaustive list, therefore school administrators and staff should be mindful not to judge students based on the results of this study. This study suggests the following as risk factors for opioid misuse: (a) having the school call home due to participants getting in trouble for their behavior ($r_s = -0.54$, $p < .001$); (b) skipping class ($r_s = -$

0.54, $p < .001$); (c) being in a fight during high school ($r_s = -0.48$, $p < .001$); (d) skipping

schoolwork assignments ($r_s = -0.48$, $p < .001$); (e) getting in trouble in class ($r_s = -0.47$, $p <$

.001); (f) lying about something important ($r_s = -0.43$, $p < .001$); (g) being bullied at school ($r_s = -$

0.23, $p = .003$); (h) feeling lonely ($r_s = -0.25$, $p = .001$); and, (i) bullying someone at school ($r_s = -$

0.19, $p = .013$). This study suggests two potential protective factors for opioid misuse, feelings

of belonging at school ($r_s = 0.45$, $p < .001$), and having supportive peers at school ($r_s = 0.31$, $p <$

.001). This study suggests that some of the experiences and behaviors at school differ between

those who have and have not misused opioids.

This study supported the guiding hypothesis and previous literature. Researchers behind

the brain opioid theory of social attachment have demonstrated that social relationships and

isolation impact the levels of endogenous opioids in the brain (Machin & Dunbar, 2011),

surmising that opioid drugs may act as a chemical substitution for attachment to others

(Nummenmaa et al., 2015). Maslow's (1943) theory of hierarchy of needs highlights the

importance of belonging to one's wellbeing and success. This study supported both theories in

that feelings of belonging were correlated to not misusing opioids ($r_s = 0.45$, $p < .001$), as was

having supportive peers in school ($r_s = 0.31$, $p < .001$). Individuals, who felt that they belonged

in school and had supportive attachments to others, seemingly did not need the chemical

substitutions for attachments and achieved the important need of belonging.

Previous Researchers have demonstrated that externalizing/acting out behaviors were

risk factors for substance use and opioid misuse (Bradshaw et al., 2013; Murphy et al., 2015;

Riehm et al., 2019; Sartor et al., 2014; Taylor, 2010). The results of this study supported that, as

the eight identified school-based externalizing/acting out behaviors were all correlated to opioid

misuse. Researchers have identified that externalizing behaviors can lead to discipline actions

that can impact feelings of school belonging (Bottiani et al., 2017; Huang & Anyon, 2020), and

while this study did not specifically ask about discipline actions, the results supported the

literature on how feelings of school belonging are correlated to substance use (Moddox & Prinz, 2006; Korpershoek, 2019).

The results of this study have several implications for school administrators, educators, and policy makers. The results suggest that certain school-based experiences and behaviors are correlated to opioid misuse or not misusing opioids. The results show that students who struggle in school academically, socially, and emotionally need help. There is a chance that students who struggle in school also struggle outside of school. Thus, school staff can help by making sure no students are left out, are connected to some adults in school, are provided help to be successful in school, and are treated with compassion. Schools can intervene to promote the positive wellbeing of students by focusing on the mental health of students, using restorative discipline practices, and improving the school climate.

A potential preventative measure for opioid misuse involves supporting the social and emotional wellbeing of students. Given the following, that:

(a) self-regulation skills predict externalizing behaviors and substance use (Robson, Allen, & Howard, 2020);

(b) the presence of externalizing behavior at a young age can predict later in life mental health struggles (Kjeldsen et al., 2016);

(c) people may use substances to alleviate mental health struggles (L.L Smith et al., 2017); and

(d) mental health struggles can predict substance use after high school (Kirst et al., 2014);

a focus on supporting the social and emotional wellbeing of students will aid in their overall wellbeing and may help prevent opioid misuse. One in five students experience a mental health struggle and up to 60% of students do not receive the necessary treatments (National Association of School Psychologists, 2016), therefore embedded mental health providers within schools may help improve the social and emotional wellbeing of students. The National

Association of Social Workers (2012) recommends one school social worker for every 250 regular education students and one for every 50 students with more intensive needs. Having the recommended ratios of mental health providers and teaching social and emotional skills in classrooms will help improve the overall wellbeing of students and may help prevent opioid misuse.

In addition to improving access to mental health supports in schools, this study highlights the importance of having a discipline system in schools that focuses on restorative consequences as learning opportunities instead of traditional exclusionary discipline practices. Discipline interventions act as critical opportunities for students to either feel included and supported or to feel excluded and rejected by schools (Jones et al., 2018). To best support students, school administrators should address externalizing/acting out behaviors through building more connections instead of cutting off potential connections through exclusionary discipline practices. Often with traditional forms of discipline school administrators react to students demonstrating externalizing/acting out behaviors through suspending or even expelling them, further pushing these students away from school, despite the fact that these students need the opposite, to feel that they belong in school.

The results of this study also support the importance of fostering a supportive school climate. This study suggests that feelings of belonging to school and having supportive peers in schools may help prevent opioid misuse, highlighting the importance of positive connections within schools. School staff and administrators can help foster a positive school climate and encourage feelings of belonging through creating supportive environments and forming positive relationships with students (Allen & Kern, 2017). Promoting the mental health of students (National Association of Secondary School Principals, 2019) and using non-exclusionary discipline practices (Jones et al., 2018) can help form a positive and supportive school climate. Hari (2015) argued that the, "opposite of addiction isn't sobriety. It's connection" (p. 293). This

study supports that premise that connections may matter and feeling connected to school may help prevent opioid misuse.

Limitations

This study had several limitations. The participant pool lacked diversity, meaning that the conclusions drawn from this study can only be applied to primarily white people from New England. This study only focused on a limited amount of externalizing/acting out behaviors and school experiences; therefore, it does not provide a complete understanding of the phenomenon of opioid misuse and school-based behaviors. This study relied on a survey using the participants' memories to reflect on their experiences in high school, therefore there was the potential for bias in the participants' responses.

The methods of this reflective study resulted in the potential for a negativity bias, a recollection bias, and a social desirability bias. A negativity bias occurs when participants may more easily remember negative events instead of positive events as the reflection of negative events elicits a faster and stronger response (Carretie et al., 2001). This may have led to the possibility of participants having a more negative reflection about their high school experiences. A recollection bias occurs when participants may not accurately or fully remember things as the passing of time appears to influence memory recall and an individual's emotions (Stolarski et al., 2014). A social desirability bias occurs when participants may under-report socially undesirable activities and over-report socially desirable ones due to concerns over their self-image (Krumpal, 2013). This was not a longitudinal study; therefore, participants had to rely on their memory which may have distorted some experiences.

Recommendations for Future Research

Additional studies should continue this research on identifying critical school experiences and behaviors that can influence the trajectory of opioid misuse. Given the reflection nature of this study and the potential for biases with surveys, future researchers should conduct longitudinal studies to track student experiences into adulthood to determine the connections

between school-based behaviors/experiences and opioid misuse. Additional studies should also consist of a more diverse group of participants from different geographical areas and backgrounds.

This study only focused on identifying the correlation between opioid misuse and school-based externalizing/acting out behaviors and feelings of belonging in school; therefore, future studies should examine additional aspects of school experiences and behaviors to help identify additional school-based risk and protective factors for opioid misuse. Future researchers should also look at potential factors outside of schools, such as adverse childhood experiences (ACEs), and experiences within the family or community, that may play a role in opioid misuse.

Final Thoughts

In conclusion, the results of this study's suggestions around the feelings of belonging as a potential protective factor for opioid misuse while the presence of externalizing/acting out behaviors as a possible risk factor for opioid misuse has implications for the nation, states, and communities to improve school policies to promote student wellbeing. The results of this study suggest that school administrators and staff can help improve student wellbeing and reduce opioid misuse by: (a) supporting the social and emotional wellbeing of students; (b) using non-exclusionary discipline practices; and, (c) improving the school climate. To do this, communities, states, and the nation must provide appropriate funding for schools. In 2015, opioid use and misuse cost the United States $504 billion through legal, criminal justice, employment, and health care costs (Council of Economic Advisers, 2017). Investing the time and money during the school years can improve the wellbeing of students and potentially save lives. By investing time and money during the school years to aid in the emotional wellbeing of students, schools can play not only a critical role in the health of students, but also potentially save lives.

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