ABSTRACT

NANCE, ABBY L. An Epidemic of Silence: Teacher Stigma and Youth Help-Seeking surrounding Opioid Misuse. (Under the direction of Dr. Elan Hope and Dr. Laura Widman).

Currently the CDC estimates that 130 Americans die each day from opioid-related drug overdoses. Adolescents are not sheltered from the opioid epidemic, and adolescents from rural communities are more likely than their urban peers to report prescription opioid misuse. Although opioid addiction is now regarded as treatable, it is highly stigmatized. It is essential that those impacted by opioid addiction are able to seek help. Understanding the barriers to help-seeking is crucial because the inability to seek help acts as a barrier to entering formal systems of treatment.

The focus of this 2-study dissertation is to document the attitudes of students and educators surrounding opioid misuse that may serve as barriers to help-seeking. Data was collected in a rural county recently identified as an "opioid high-risk county" due to a high opioid mortality rate and low access to treatment for opioid addiction. The first study examines stigma and willingness to seek help in a diverse sample of 340 public middle school students. Specifically, Study 1 focuses on youth by measuring the prevalence of help-seeking intentions for opioid misuse, personal stigma surrounding opioid misuse, perceived educator stigma surrounding opioid misuse, and associations between help-seeking and stigma.

The second study focuses on middle school teachers. Study 2 uses semi-structured interviews with 22 teachers to explore themes around teachers' responses to teaching in an under-resourced community impacted by the opioid epidemic. Together these studies point to the important role teachers can play in responding to students surrounding opioid misuse. In

addition, this dissertation provides a description of how middle school teachers and students respond to the opioid epidemic in school settings.

An Epidemic of Silence: Teacher Stigma and Youth Help-Seeking surrounding Opioid Misuse.

by
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A dissertation submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy

Psychology

Raleigh, North Carolina

2021

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DEDICATION

For my fellow teachers, including my grandmother, Hunna.

BIOGRAPHY

Abby Nance previously earned a Master of Fine Arts in Creative Writing from Texas State University. She is currently a member of the psychology faculty at the University of North Carolina at Pembroke.where she continues to investigate teacher communication and social emotional health.

ACKNOWLEDGMENTS

I thank my co-chair, Laura Widman, who has taught me what it means to be a mentor. Laura, thank you for joining my committee, for welcoming me into your lab, my Poe Hall home, and for your unflagging commitment to my growth as a scholar. My co-chair, Elan Hope, who agreed to be on my committee in spite of a mountain of personal and professional commitments, whose courses (Qualitative Methods and Race and Education), and the conversations that they catalyzed have changed my life. Elan, thank you for holding me accountable with firm compassion. I also want to thank Liz Craig for helping me find my voice and for believing in me. Finally, Sarah Desmaires, I never left a conversation with you without learning something whether it was a formal conversation like my oral preliminary examinations or a hall chat. Thank you for your generous formal and informal teaching and mentoring.

With gratitude to my family, particularly, Kathy Nance, Gary Newton, Susan LosCalzo, Deborah Boelter and Delane Kinney, who provided emotional and instrumental support during this process. I am grateful for my students who planted the research seeds that led to this degree. I would never have applied to a research degree without the support of my former colleagues at Gardner- Webb University, including Cathleen Cieselski and Sydney Brown. I am grateful that I went through this process with the support of: George, Vinny Dehili, Lynne Hefetz, Jennifer Spain, Nick Myers, Rubia Martin, Cyndell Gracieux, Natasha Castellanos, Erin Peterson, Geena Washington, Noely Banos, Kristen Riddick, J Stewart and Kristyn Kamke.

I also want to acknowledge the Graduate School, in particular, the dissertation completion grant, Joe Aldinger and Vanessa Doriott Anderson.

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CHAPTER 1

Introduction

Overview of Studies

This project examines the intersection of the opioid epidemic and the support available to students in the education system. The focus of this multi-method, two-study dissertation is to document middle school students' and teachers' responses to the opioid epidemic. The first study examines how stigma may impact willingness to seek help in a diverse sample of public middle school students. Specifically, Study 1 focuses on youth by measuring the prevalence of help-seeking intentions for opioid misuse, personal stigma surrounding opioid misuse, perceived educator stigma surrounding opioid misuse, and associations between help-seeking and stigma. The second study focuses on middle school teachers. Study 2 uses semi-structured interviews with educators to explore themes around educators' responses to students surrounding opioid misuse in the community. Together these studies point to a potential target that could strengthen interventions aimed at preventing and treating opioid misuse: investing in and supporting teachers who in turn, provide support for students impacted by the opioid epidemic. In the remaining introduction, I will provide a brief overview of the socio-political factors that have contributed to the opioid epidemic, including prevalence statistics which highlight the heightened risk experienced by adolescents from rural communities. I also discuss stigma as a barrier to help-seeking and the unique role of educators in the social and emotional development of youth.

An Epidemic

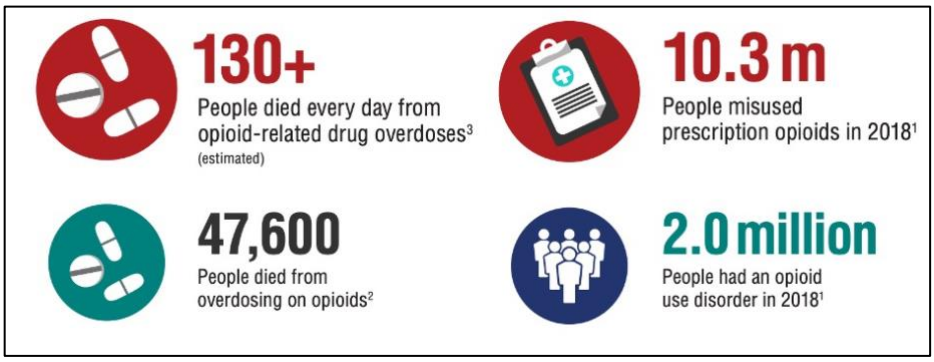
In the last three decades, the treatment of pain has undergone multiple transformations. In the 1990s pain was reframed as "the fifth patient vital sign" by physicians after an address to the American Pain Society became a successful campaign by the Veterans Health Administration

and the Joint Commission on Accreditation of Healthcare Organizations (Morone & Weiner, 2013, p. 1729). This campaign was funded by Purdue Pharma, which introduced OxyContin in 1995 and between 1996-2000 funded more than 20,000 pain education programs designed to encourage the use of opioids to treat non-cancer chronic pain (Government Accounting Office, 2004). During this period, the rate of opioid use began accelerating rapidly, as did prescriptions for opioids (United Nations, 2008). According to the Centers for Disease Control and Prevention (CDC), in 2010 doctors prescribed enough prescription painkillers to medicate every American adult around-the-clock for a month (CDC, 2011). But the medical establishment was not alone in the new notion that pain should neither be undermanaged nor ignored: the U.S. Congress proclaimed the 2000 to 2010 the Decade of Pain Control and Research (Brennan, 2015).

By 2007 the people in United States consumed 80% of the global opioid supply, including 99% of the global hydrocodone supply (Manchikanti & Singh, 2008). That same year unintentional poisoning, which includes drug overdoses, surpassed motor vehicle collisions to become the leading cause of unintentional injury death in the United States. As a result, in 2012 the CDC labeled prescription drug overdose an epidemic (CDC, 2012). In October 2017 the US government declared the opioid epidemic a public health emergency (The White House, n.d.). This declaration was precipitated by a deadly spike in opioid overdose deaths in 2016 when fifty-three thousand Americans died from opioid overdoses, more than the number of Americans who died as a result of gun violence that same year. Currently, the CDC estimates that 130 Americans die each day from opioid overdose and non-prescription sources (CDC, 2020). See Figure 1 for more opioid statistics.

Figure 1

The Opioid Epidemic by the Numbers



Note. Figure taken from *The Opioid Epidemic By the Numbers* By the U.S. Department of Health and Human Services (n.d.). (https:www.hhs.gov/opioids/about-the-epidemic/index.html). In the public domain.

Opioids

Opioids are substances used to treat pain. They include opiates, such as codeine, morphine, and heroin, which are made from or contain substances derived from the opium poppy. Opioid is an umbrella term that includes opiates and also synthetic compounds such as hydrocodone (Vicodin), oxycodone (OxyContin), fentanyl, and methadone, which are not made from opium, but bind to opiate receptors in the central nervous system (National Cancer Institute, n.d.). The highest concentration of opioid receptors in the human brain is found in the limbic system, which is responsible for emotional modulation. In addition to being responsible for controlling pain, opioid receptors are involved in reward saliency (Sell et al., 1999) as well as addictive behavior (Whistler et al., 1999).

Opioid Use Disorder

Opioids are highly addictive because they induce a brief feeling of euphoria followed by a period of calm. Cessation of chronic use produces dysphoria (Kolodny et al., 2015). Opioid use disorder (OUD), or opioid addiction, is defined in the DSM-5 as "a problematic pattern of opioid use leading to clinically significant impairment or distress," (American Psychiatric Association.,

2016, p. 551). An estimated 2 million people in the United States aged 12 years or older have opioid use disorder (Schuchat et al., 2017).

Although social scientists and public health researchers use multiple constructs to track opioid use, it is important to note that terminology differs. For instance, opioid use is not the same as opioid misuse because the former refers to the use of prescription opioids as prescribed. Throughout this dissertation I use the term *opioid misuse*. Opioid misuse describes the use of prescription opioids not as prescribed, the use of prescription opioids without a prescription, or the use of a non-prescription opioid (Center for Behavioral Health Statistics, 2018). I have chosen this terminology for two reasons. First, it aligns with the materials used in a larger study. In addition, it is more appropriate for young adolescents, as it does not imply a diagnosis or assume dependence. In order to maintain accuracy, I adopt the terminology used by researchers when referencing the work of others.

One method researchers use to compare the "addictive liability" of substances (or how addictive they are) is to examine the length of time between onset of abuse and dependence. Shorter lengths of time between onset of abuse and dependence are associated with greater addictive liability. The shortest times between onset of abuse and dependence were observed with cocaine and opioids (Ridenour et al., 2005). Factors associated with opioid addiction include: age of onset of use, gender, prenatal exposure, race/ethnicity, level of education, employment status, geographic area, family history of drug abuse/dependence, poly-drug use, and criminal activity (Gruber et al., 2007).

Because opioid misuse can (and often does) begin with the medical use of opioids, the opioid epidemic has been described as iatrogenic (Miech et al., 2015). Notably most prescribed pain medications in the United States are opioids (Shepherd, 2014).Sixty-three percent of people

who misuse opioids do so in order to relieve pain (Substance Abuse and Mental Health Services Administration, 2017). New nonmedical users of prescription medications initially obtain these drugs from friends or family members (Substance Abuse and Mental Health Services Administration, 2014b). Nearly 53% of people misusing prescription pain medications report getting them from a friend or relative the last time they misused these drugs. There is a clear link between the use of prescription opioid pain relievers and heroin use. Four out of 5 current heroin users report that their opioid use began with opioid pain relievers (Muhuri et al., 2013).

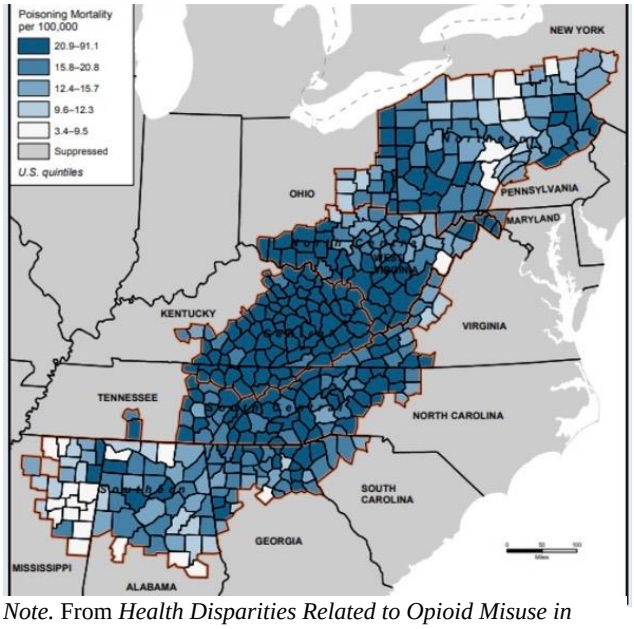
The non-fatal use of opioids has acute and long-term effects on the body. Opioid use is associated with alterations in brain structure and function and is associated with decreases in cognitive functioning (Gruber et al., 2007). OUD has a significant negative impact on psychomotor function, memory, attention, and planning (Wollman et al., 2019). In addition, substance use disorders and psychiatric disorders are highly comorbid (Kelly & Daley, 2013). Mood and anxiety disorders are associated with prescription opioid misuse (Conway et al., 2006). More than 60% of adolescent patients with a substance use disorder had a coexisting psychiatric illness (Grella et al., 2001). Tobacco use is four times higher in patients with an opioid abuse history than it is in the general population (Jacobs & Cangiano, 2018).

Opioid misuse can be fatal. Prescription opioid misuse is responsible for over 16,000 US deaths annually (Dart et al., 2015). That number increases dramatically if non-prescription opioids are included. In 2017, the number of overdose deaths involving prescription and non-prescription opioids was 6 times higher than in 1999 (Centers for Disease Control and Prevention, 2020). This uptick in opioid overdose deaths has been attributed to the increase in illicitly manufactured fentanyl (Gladden et al., 2016). Fentanyl is a synthetic opioid used during surgery as an anesthetic (Stanley, 2005). Illegally manufactured fentanyl is often mixed with

heroin, pills, or cocaine. People who use these drugs may or may not know that they contain fentanyl (Sutter et al., 2017).

Figure 2

Poisoning Mortality Rate per 100,000 in Appalachia 2008-2014



Note. From *Health Disparities Related to Opioid Misuse in Appalachia: Practical Strategies and Recommendations for Communities.* By the Appalachian Regional Commission, *2019.* https://www.arc.gov/wp-content/uploads/2020/06/HealthDisparitiesRelatedtoOpioidMisuseinAppalachiaApr2019.pdf

Data from National Center for Health Statistics (Compressed Mortality File 1999-2014).

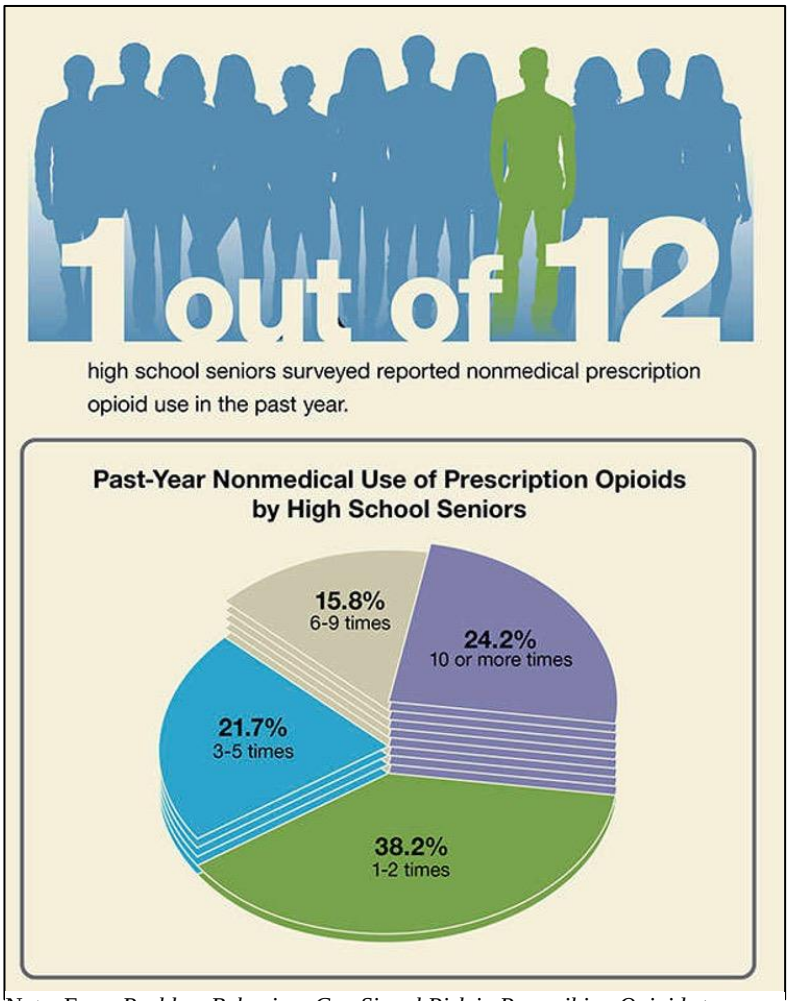
Opioid Addiction in Rural America

The nonmedical use of opioids, while widespread, is particularly problematic in rural and Appalachian (see Figure 2) parts of the United States (Hays, 2004). This regional risk is often attributed to worsening economic conditions in these communities, specifically rising unemployment which is associated with an increased risk for developing substance abuse disorders. Community factors also believed to increase risk include increased isolation, and self-reliance, which can serve as barriers to seeking treatment (Dew et al., 2007). Attitudinal barriers

in rural communities such as the perception that there is an increased risk of social stigma and a mistrust of assurances of confidentiality also prevent people from seeking treatment for substance abuse. In addition, rural communities often lack psychiatric and detox facilities (Schultz et al., 2016).

Figure 3

High School Seniors' Nonmedical Opioid Exposures



Note. From *Problem Behaviors Can Signal Risk in Prescribing Opioids to Teens.* By The National Institute on Drug Abuse, 2013. https://archives.drugabuse.gov/news-events/nida-notes/2013/07/problem-behaviors-can-signal-risk-in-prescribing-opioids-to-teens

Opioid Addiction and Adolescents

Adolescents, defined as 10-19 year-olds (World Health Organization, 2014), are also impacted by the opioid epidemic. See Figure 3 for additional statistics. Opioid prescriptions written for adolescents and young adults have nearly doubled since 1994 (Fortuna et al., 2010). The annual rate of opioid-related deaths has consistently and dramatically increased in all age groups over 15 years of age over the last decade (Rudd et al., 2016). Illicit use of prescription pain medication in adolescents is second only to marijuana (National Institute on Drug Abuse, 2011). Nearly 17% of high school students have misused prescription drugs during their life (Kann et al., 2016). Though prevalence estimates vary, a 2012 systematic review of adolescents 12-17 years old reported that in the past year, non-medical prevalence of prescription pain relievers in nationally representative studies was 4-11% (Young et al.). More than 276,000 youth currently misuse prescription opioids (Bose et al., 2016). Use of opioids in adolescence increases the risk of opioid abuse in adulthood (Miech et al., 2015).

The majority of opioid initiation occurs during later adolescence and young adulthood (Schepis & Hakes, 2017). The average age of initiation for the nonmedical use of prescription opioids is 17 years old (Catalano et al., 2011). Teens who misuse prescription medications report that they do so believing that these medications are safer than illegal drugs because they are obtained by prescription (Partnership for Drug-Free Kids, 2013). One study found that one in four adolescents reported loaning or borrowing a prescription medication: 24 percent had loaned prescription pain medication and 27 percent had borrowed pain medication (Goldsworthy & Mayhorn, 2009).

Despite these statistics, the impact of the opioid epidemic on youth is difficult to quantify because youth can be impacted by a parent or caregiver's misuse (see Figure 4), or by their own

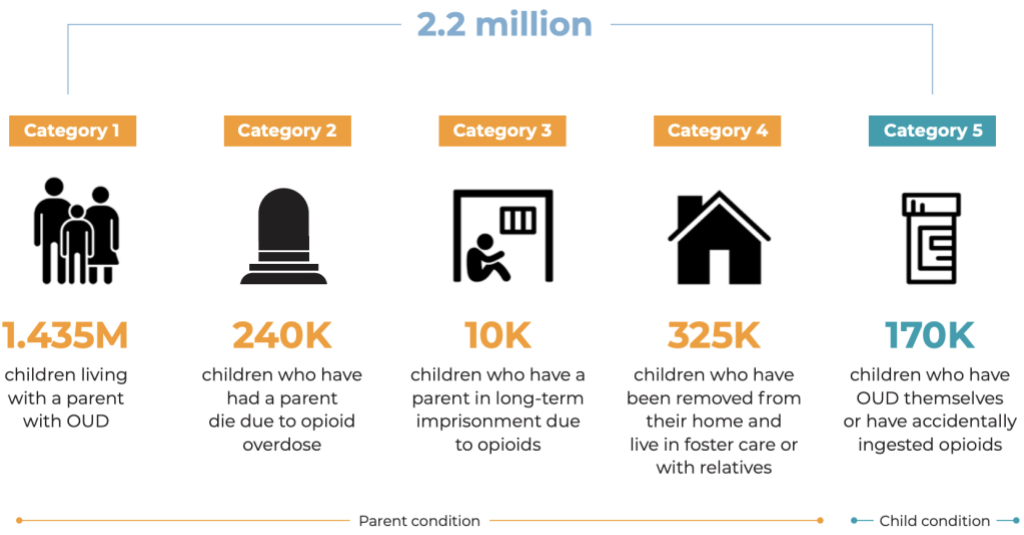
misuse of opioids. In the US, an annual average of 8.7 million children under 17 lived with a parent with a substance use disorder, according to data spanning 2009-2014 (Lipari et al., 2017). The number of youth living with a parent diagnosed with OUD is unknown, however in 2017 the highest rates of overdose deaths occur among individuals 25-44 years of age, which are prime periods of parenthood (Hedegaard et al., 2018; Khandwala et al., 2017; Winstanley & Stover, 2019).

Adolescence is a developmental period characterized by risk-taking, impulsivity, and novelty seeking, which may lead to drug-seeking behaviors (Spear, 2000). In addition, this is a critical neurodevelopmental period characterized by both structural and functional changes to the neurological system (Pascual et al., 2018). The prefrontal cortex, which is responsible for executive function and adaptive behavior, is the last area of the brain to mature making it more vulnerable to the impact of drug abuse (Badre et al., 2010; Guerri & Pascual, 2019).

Beyond the increased risk of developing a substance use disorder in adulthood, little is known about long-term impact of opioid use in adolescence. Compared with youth who misuse alcohol, youth who use opioids have higher rates of psychiatric, medical, and legal problems, and are more likely to drop out of school (Subramaniam et al., 2011). In addition, compared to their peers who do not use opioids, adolescent opioid users experience greater risk for contracting HIV and are more likely to be polysubstance users (Subramaniam et al., 2010). Adolescent prescription pill misuse is linked to sexual victimization, mood disorders, substance abuse disorders—including later heroin use—and poor health (Catalano et al., 2011; Kelley-Quon et al., 2019; Young et al., 2011).

Figure 4

Children affected by the opioid epidemic in 2017



Note: From *The Ripple Effect: National and State Estimates of the U.S. Opioid Epidemic's Impact on Children.* By the United Hospital Fund. November 2019. https://uhfnyc.org/media/filer_public/6e/80/6e80760f-d579-46a3-998d-1aa816ab06f6/uhf_ripple_effect_national_and_state_estimates_chartbook.pdf

Living in a rural community presents additional risk factors, particularly for youth. Adolescents from rural areas are more likely than their urban peers to report prescription opioid misuse and have 35% greater odds of prescription opioid misuse compared to youth from urban areas (Havens et al., 2011; Monnat & Rigg, 2016). Rural youth also experience more criminal involvement, report riskier attitudes about substance use, and higher Emergency Department utilization, all of which are associated with increased risk of developing opioid misuse disorder (Monnat & Rigg, 2016).

Treatment

In the United States, opioid addiction costs an estimated $78.5 billion annually with 28.9 billion of that being attributed to increased healthcare and treatment costs (Florence et al., 2016). Compared to matched counterparts, opioid abusers pay nearly 15,000 dollars more on healthcare

annually (Kirson et al., 2017). For every opioid-related death, there are 10 treatment admissions, 32 emergency department visits, 130 persons who abuse or are dependent on opioids, and 825 persons who report nonmedical use of opioids (Centers for Disease Control and Prevention, 2011). Additionally, once a person becomes addicted to opioids, it typically takes four to five treatment attempts to achieve remission for a single year (Macy, 2018).

Medication Assisted Treatment (MAT) is the use of pharmacotherapies in addition to counseling and behavior therapies (Kresina & Lubran, 2011). Beginning in 1998 with Methadone maintenance treatment, and later expanding to include other medications, MAT is the recommended treatment for OUD (National Consensus Development Panel on Effective Medical Treatment of Opiate Addiction, 1998). MAT reduces the risk of overdose, psychosocial deterioration, and transition to injection opioid use. It also reduces drug use, medical complications, infectious disease transmission, and criminal activity and increases patient retention (National Institute on Drug Abuse, 2016).

The Food and Drug Administration has approved three medications to treat OUD (methadone, buprenorphine, and naltrexone), however, access remains a critical barrier to treatment. Only an estimated 11 percent of people diagnosed with OUD have access to these medications (Oesterle et al., 2019). In 2016, two-thirds of substance abuse treatment facilities did not offer MAT and of those that did, only 6.1 percent offered all three medications (Mojtabai et al., 2019). Critical barriers include the regulations and protections surrounding the prescription of medications, particularly buprenorphine, which can be prescribed in primary care treatment facilities by physicians and nurse practitioners. However, physicians have to attend an 8-hour training in order to prescribe MATs, and federal law limits the number of patient's doctors can treat. In an opinion column in *JAMA* called "Ten Steps the Federal Government should take now

to reduce the opioid addiction epidemic" the authors noted that "it seems illogical and perhaps ironic that buprenorphine, the one opioid that appears to be safer than commonly prescribed opioid analgesics and heroin, is the only one with such barriers to prescription" (Kolodny & Frieden, 2017, p. 1538). Though France saw a 79% decrease in opioid-related death only six years after deregulating the prescription of buprenorphine, approximately 60% of US counties do not have a physician with a waiver to prescribe this medication, and of these counties 80% are located in rural areas (Auriacombe et al., 2004; Rosenblatt et al., 2015).

Access is even more difficult among youth and among people who live in rural communities. Only one in 21 youths under 18 who are diagnosed with OUD are prescribed these medications (Knopf, 2018). In addition to a lack of access to MAT providers, stigma surrounding MAT acts a barrier to access (Wakeman & Rich, 2018). Factors contributing to the stigma surrounding MAT are: the belief that addiction is a moral failing rather than a disease, the historical silo-ing of MAT from other medical treatments, pejorative language used to talk about treatment and addiction, and the historical failure of the criminal justice system to defer to medical judgement when treating OUD (Olsen & Sharfstein, 2014). In addition, the stress of living in poverty, physical isolation, and absence of interaction with mainstream social institutions and community agencies can lead to poor mental health among impoverished rural residents (Fox et al., 2001).

Help-seeking

It is essential that those impacted by opioid use disorder are able to seek help. Opioid addiction is now regarded as treatable and the stressors it causes on family systems and youth can be mitigated (Kampman & Jarvis, 2015). Understanding the barriers to help-seeking is

crucial because the inability to seek help acts as a barrier to entering formal systems of care (Kovandžić et al., 2011).

There is no agreed-upon definition of help-seeking (Rickwood & Thomas, 2012). It is conceived of as a coping strategy aimed at appraising a situation, identifying a problem, and attempting to address that problem through seeking support or help from others (Schonert-Reichl & Muller, 1996; Seiffge-Krenke, 1993). Similarly, help-seeking has been described as an adaptive self-regulatory strategy and an interpersonal interaction (Nir, 2009). Models of this construct conceptualize help-seeking as a complex process involving a series of decisions or stages (Greenley & Mullen, 1990; Karabenick & Sharma, 1994; Srebnik et al., 1996). These models vary slightly but all involve three stages. These stages include: (1) the identification of a problem, (2) the decision to seek help, and (3) the selection of a helper (Featherstone & Broadhurst, 2003).

The first stage, the identification of a problem, requires access to knowledge. Interventions that target this stage typically focus on providing information that can assist someone in identifying if and when a problem may require help (Bergeria et al., 2019). For instance, a school-based program focused on preventing opioid misuse might provide information on the addictive liability of opioids. The second stage, the decision to seek help, involves access to social and cognitive competencies. Opioid prevention efforts focused on this stage would attempt to ameliorate barriers to acknowledging addiction, such as stigma (Stuart, 2019). Finally, the third stage, the selection of a helper, requires access to social support. Intervention efforts aimed at preventing opioid misuse targeting this stage are rare—but could involve training potential helpers, such as educators, to communicate about opioid misuse clearly and without judgement (Thornicroft et al., 2015).

Early adolescence is a critical time for the development of help-seeking behaviors. Adolescents may have difficulty appraising their need for help because relevant cognitive and emotional skills, like planning, impulse control and identifying alternate coping techniques, are still developing (Yurgelun-Todd, 2007). Because attitudes towards substance abuse and help-seeking are established in early adolescence, the beliefs of the trusted adults in an adolescent's support system are important (Bryant et al., 2003). Beliefs about help-seeking are influenced by the perceived beliefs of an adolescent's social network (Fröjd et al., 2007; Wilson & Deane, 2001). Help-seeking for substance abuse among adolescents is facilitated by supportive, understanding helpers who are trustworthy (Berridge et al., 2018).

Stigma

One effective strategy for improving help-seeking intentions is overcoming stigma. Stigma is the dehumanization of the individual based on their social identity or participation in a negative or an undesirable social category (Goffman, 1963b; Luoma et al., 2010, p. 47). In the present studies, I focus on two sources of stigma surrounding opioid misuse that may impact the help-seeking intentions of early adolescents: personal stigma and the perceived stigma of educators.

A World Health Organization study across 14 countries found that drug addiction was the most stigmatized social problem, ranking first out of 18 social issues, including criminal behavior, homelessness, and being HIV positive (Room et al., 2001). Overcoming stigma has been described as a crucial area of research by the American Medical Association's Task Force to Reduce Opioid Abuse (American Medical Association, 2015). Individuals with substance use disorders who experience discrimination due to their race, gender or sexual orientation, rank

stigma surrounding substance abuse as having the largest impact on their lives (Minior et al., 2003; Young et al., 2005).

Stigma is a robust barrier to help-seeking. There are many theories about the mechanisms connecting stigma to help-seeking, all of which are fueled by avoiding being treated negatively (both by society and by the self). Corrigan (2004) hypothesized that people do not seek help in order to avoid either the perceived stigma of others (e.g., if I don't seek help, I won't be labeled by others), personal stigma (e.g., I don't deserve help, I am lazy). Similarly, Schomerus & Angermeyer (2008b) have argued that people choose not to seek help because they anticipate discriminatory treatment. Clement et al. (2015) adds that the avoidance of help-seeking may be due to familial or community loyalty (e.g., not wanting to disclose to or bring shame to one's family or community). Studies that focus on rural populations have noted the added concerns about being treated unkindly or that care would be unavailable (Fox et al., 2001).

We are aware of no studies that have looked at the relationship between substance abuse stigma and help-seeking in youth. A small negative association between stigma and help-seeking has been seen in help-seeking in other domains, including mental health issues, addiction and academic achievement in adolescent populations (Dschaak & Juntunen, 2018; Eisenberg et al., 2009; Schnyder et al., 2017; Won et al., 2019). Understanding this relationship in this population is essential to effective treatment and prevention efforts with regard to opioid misuse.

Educators as Helpers

Help-seeking decreases in adolescence, just when youth are developing the social and cognitive skills necessary to deploy help-seeking as a strategy (Marchand & Skinner, 2007). In childhood, parents are the primary source of information and support. However, by adolescence, when youth do ask for help, adolescents are most likely to seek help from school personnel or

medical providers (Barker & Adelman, 1994). Thus, understanding school settings is essential to understand help-seeking in adolescents (Biolcati et al., 2018). Multiple studies of protective factors for youth exposed to adverse childhood experiences, including abuse, neglect, and substance use in the home, point to the importance of relationships at school including: positive school environment, extracurricular activities, hobbies, high-quality peer relationships, and most importantly, a supportive relationship with a caring adult (Srebnik et al., 1996).

Although there is limited information about how teachers impact help-seeking intentions, studies of motivation in middle school students consistently demonstrate that teachers' motivation and support impact student achievement (Raufelder et al., 2013). When a teacher is perceived to be unsupportive (by engaging in rejection or coercion, for instance), student self-perceptions are undermined (Ryan & Patrick, 2001). College students' perceptions of the amount of support the instructor provided in the class were linked to students' asking of questions, even when controlling for the students' level of confusion (Karabenick & Sharma, 1994). Students' perceptions that the teacher likes the student and that they like the teacher were related to students' reports of help-seeking in the classroom (Newman & Schwager, 1993). In order to prevent opioid misuse and address OUD, youth must have adults in their lives whom they trust to go to for help. Teachers and school counselors are adults who are uniquely situated to provide social support and connect youth with resources outside the home. Understanding the attitudinal barriers, such as stigma, that prevent students from seeking help from educators is essential.

Purpose of the Current Studies

The overarching purpose of the two studies presented in this dissertation is to examine attitudes surrounding opioid misuse that may impact the help-seeking intentions of early adolescents who live in a rural community impacted by the opioid epidemic. Study 1 is a

quantitative investigation of the role of stigma on the help-seeking intentions of early adolescents surrounding opioid misuse. Study 2 is a qualitative study focused on educators (middle school teachers and school counselors) from the same community. The second study explores teacher responses and communication practices surrounding opioid misuse.

CHAPTER 2

Impact of Stigma on the Help Seeking Intentions of Rural Middle School Youth

Introduction

Currently, the Centers for Disease Control estimates that 130 Americans die each day from opioid overdose and non-prescription sources (Centers for Disease Control and Prevention, 2020). Opioids are a class of drug that interact with opioid nerve cells in the body and brain to reduce pain. They include heroin, fentanyl and prescription pain medications such as oxycodone (OxyContin), hydrocodone (Vicodin), codeine and morphine (National Institute on Drug Abuse, nd). Opioids are highly addictive (Morone & Weiner, 2013). An estimated 2 million (Abraham et al., 1994) people in the United States aged 12 years or older have opioid use disorder (OUD) or opioid addiction (Schuchat et al., 2017).

Adolescence (defined as youth between the ages of 10-19 years old) is a high risk stage for substance use (Substance Abuse and Mental Health Services Administration, 2014a; World Health Organization, 2014). Adolescence is a developmental period characterized by risk-taking, impulsivity, and novelty seeking, which may lead to drug seeking behaviors (Spear, 2000). In addition, this is a critical neurodevelopmental period characterized by both structural and functional changes (Pascual et al., 2018). The prefrontal cortex, which is responsible for executive function and adaptive behavior (Badre et al., 2010), is the last area of the brain to mature making it more vulnerable to the impact of drug abuse (Guerri & Pascual, 2019). Use of opioids in adolescence increases the risk of opioid abuse in adulthood (Miech et al., 2015).

Illicit use of prescription pain medication is second only to marijuana in prevalence of drug abuse among adolescents (Substance Abuse and Mental Health Services Administration, 2014b). A 2012 systematic review focusing on adolescents ages 12-17 reported that the past year

non-medical prevalence of prescription pain relievers in nationally representative studies was 4-11% (Young et al.). More than 276,000 youth currently misuse prescription opioids (Substance Abuse and Mental Health Services Administration, 2017). Adolescent prescription pill misuse is linked to sexual victimization, mood disorders, substance abuse disorders—including later heroin use—and poor health (Catalano et al., 2011; Kelley-Quon et al., 2019; Young et al., 2011).

The nonmedical use of opioids while widespread, is particularly problematic in rural and Appalachian communities in the United States (Hays, 2004; Keyes et al., 2014). There are a number of known risk factors for opioid misuse among youth including living in a rural community (Mosher et al., 2017). Adolescents from rural areas are more likely than their urban peers to report prescription opioid misuse and are at 35% greater odds of prescription opioid misuse compared to youth from urban areas (Havens et al., 2011; Monnat & Rigg, 2016). Rural youth experience more criminal involvement, hold more risky attitudes about substance use, and higher emergency department utilization, all of which are associated with increased risk of developing opioid use disorder (Pluta, 2011). In small communities, the perception that there is an increased risk of social stigma and a mistrust of assurances of confidentiality can prevent people from seeking treatment for substance abuse (Monnat & Rigg, 2016). Rural communities also often lack psychiatric and detox facilities (Schultz et al., 2016).

Help seeking

It is essential that those impacted by opioid use disorder are able to seek help. Opioid addiction is now regarded as treatable and the stressors it causes on family systems and youth can be mitigated (Kampman & Jarvis, 2015). Understanding the barriers to help-seeking is crucial because the inability to seek help acts as a barrier to entering formal systems of care (Kovandžić et al., 2011). Help-seeking is conceived of as a coping strategy aimed at appraising a

situation, identifying a problem, and attempting to address that problem through seeking support or help from others (Schonert-Reichl & Muller, 1996; Seiffge-Krenke, 1993). Similarly, help-seeking has been described as an adaptive self-regulatory strategy and an interpersonal interaction (Karabenick & Sharma, 1994; Nir, 2009). Models of help-seeking conceptualize help-seeking as a complex process involving a series of decisions or stages (Greenley & Mullen, 1990; Srebnik et al., 1996). These models vary slightly but all involve three stages: (1) the identification of a problem, (2) the decision to seek help, and (3) the selection of a helper (Featherstone & Broadhurst, 2003).

There are individual factors that interact with cultural and community norms to influence adolescent help-seeking (Barker, 2007). Past work has demonstrated that girls, people of higher socioeconomic status, and white people tend to report more favorable attitudes towards help-seeking (Ayalon & Young, 2005; Doan et al., 2020; Leavey et al., 2011). Other factors that influence adolescent help-seeking include the characteristics of the helper. In choosing a helper, adolescents typically seek informal sources of support, such as friends and family members, rather than formal sources of help, such as teachers (Camara et al., 2017). Importantly, families and peers' beliefs about help can mean that these preferred helpers can act either as barriers or as bridges to help (Barker, 2007). For example, fear of stigma, should family members or peers find out about help-seeking, has been identified as a barrier to help-seeking in adolescents (Gulliver et al., 2010). In addition, adolescents prefer friends and family over other sources of help (Rickwood et al., 2007). Yet, families can also facilitate help-seeking; for instance, there is evidence that help-seeking behavior within families is often similar (Cardol et al., 2005).

Stigma

One factor that might impact help-seeking is stigma. Stigma is "the dehumanization of the individual based on their social identity or participation in a negative or an undesirable social category" (Goffman, 1963a; Luoma et al., 2010). Stigma occurs in multiple domains but is particularly important to understanding efforts to treat or prevent opioid misuse. A World Health Organization study across 14 countries found that drug addiction was the most stigmatized social problem, ranking first out of 18 social issues, including criminal behavior, homelessness and being HIV positive (Room et al. 2001).

Stigma surrounding opioid misuse differs from other types of stigma because it is legally and socially sanctioned (Corrigan & Nieweglowski, 2018). Historically, drug addiction has been equated with criminal deviance or a moral failing, rather than treated as a chronic medical disorder (Moore et al., 2020). The belief that opioid misuse is a moral failing persists in the pejorative language used to refer to opioid misuse and is also evident in practices by the health and criminal justice systems which do not align with medical guidance (Olsen & Sharfstein, 2014). Clinicians who treat OUD often do so without attending to other substance use disorders, mental health issues or physical health concerns. Criminal justice officials often fail to defer to medical guidance on the treatment of OUD (Legal Action Center, 2011). Overcoming stigma has been described as a crucial area of research by the American Medical Association's Task Force to Reduce Opioid Abuse (American Medical Association, 2015). Individuals with substance use disorders who experience discrimination due to their race, gender or sexual orientation, rank stigma surrounding substance abuse as having the largest impact on their lives (Minior et al., 2003; Young et al., 2005).

Stigma is a clear barrier to help-seeking for substance use (Hammarlund et al., 2018). In adolescents, a modest negative association between stigma and help-seeking has been seen in help-seeking for mental health issues (Eisenberg et al., 2009; Schnyder et al., 2017), including substance use (Dschaak & Juntunen, 2018; Hammarlund et al., 2018). There are many theories about the mechanisms connecting stigma to help-seeking, all of which are fueled by avoiding negative treatment from others. Corrigan (2004) hypothesized that people do not seek help in order to avoid the stigmatized attitudes of others (e.g., if I don't seek help, I won't be labeled by others), or their own internalized stigma (e.g., I don't deserve help, I am lazy). Similarly, Schomerus and Angermeyer (2008) have argued that people choose not to seek help because they anticipate discriminatory treatment. Clement (2014) adds that the avoidance of help-seeking may be due to familial or community loyalty (e.g., not wanting to disclose to or bring shame to one's family or community).

Two sources of stigma that may impact the help-seeking intentions of young adolescents are personal stigma and public stigma. Personal stigma is a person's attitudes towards members of a stigmatized group (Corrigan, 2004), and for the purposes of this study, personal stigma specifically refers to attitudes toward people who misuse opioids. Personal stigma is negatively associated with help-seeking in studies that focus on behavioral health disorders, including mental health (Schnyder et al., 2017) and substance use disorder (Pedersen & Paves, 2014; Smith et al., 2016). An additional source of stigma is public stigma, which occurs when the general population endorses stereotypes towards a stigmatized group (Corrigan, 2004). Public stigma, like personal stigma, is negatively associated with help-seeking (Dschaak & Juntunen, 2018; Pattyn et al., 2014). This study examined public stigma by asking young adolescents about the attitudes held by trusted adults whom they might turn to for help—namely teachers.

Teachers

Understanding the influence of teachers is essential to understanding help-seeking in adolescents (Biolcati et al., 2018). In childhood, parents are the primary source of information and support. Throughout adolescence, social relationships outside the parental home gain importance (Nelson et al., 2005). Multiple studies of protective factors for youth exposed to adverse childhood experiences, including abuse, neglect and substance use in the home, point to the importance of relationships at school including: positive school environment, extracurricular activities, hobbies, high-quality peer relationships, and most importantly, a supportive relationship with a caring adult (Srebnik et al., 1996). In addition, school gives youth frequent exposure to the people outside of their family home. Time spent at school by youth is equivalent to time spent at work by adults (Rutter, 1979). Educators have more access to students than other formal sources of help (Tower, 2003).

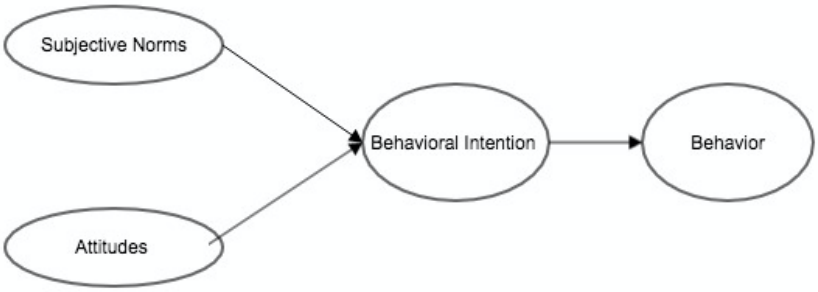
By adolescence, when young people ask for help, they are likely to seek help from school personnel (Barker & Adelman 1994). Teachers can be natural sources of help and support. Teacher emotional support is associated with a range of positive student behaviors in the classroom, including increased effort, help seeking, and cooperation with peers (Marchand & Skinner, 2007). In addition, teachers can provide valuable information and insight into a number of health-related topics (Kamke et al., 2020) including substance use (Faccio et al., 2017).

Although there is limited information about how teachers impact help-seeking intentions, studies of motivation in middle school students consistently demonstrate that teachers' motivation and support impact student achievement (Raufelder et al., 2013). When a teacher is perceived to be unsupportive (by engaging in rejection or coercion, for instance), student self-perceptions are undermined (Ryan & Patrick, 2001).

Theory of Reasoned Action

Figure 5

The Theory of Reasoned Action



Note: From Behavioral Process in the Theory of Reasoned Action [Image], by Yy362, Wikimedia Commons (https://commons.wikimedia.org/wiki/File:Behavioral_process_in_Theory_of_Reasoned_Action.png). Creative Commons License.

This study, which examines students' intentions to help-seek for opioid misuse, is guided by the Theory of Reasoned Action (Fishbein & Ajzen, 1977), see Figure 5. The Theory of Reasoned Action (TRA) posits that attitudes and norms shape an individual's intentions to engage in a health behavior. Health intentions are the most proximal predictors of subsequent health behavior. The TRA posits that intention is determined by two factors: attitudes and subjective norms. Subsequent extensions of the TRA, include the Theory of Planned Behavior (Ajzen, 1991) and the Reasoned Action Approach (Fishbein & Ajzen, 2011), situate attitudes and subjective norms as precursors to intentions but also include additional factors. This study is guided by the TRA in that the focus is the relationship between attitudes and intentions in the context of help-seeking for opioid misuse. In addition, attitudes have been identified as important components of substance abuse prevention efforts (Fishbein & Middlestadt, 1987).

As a result of the close relationship between intentions and behavior, health interventions are often informed by studies guided by the TRA and related theories (Bowen et al., 2001;

Syrjälä et al., 2002), including those aimed at teens (Berg et al., 2000; Doane et al., 2016; Gillmore et al., 2002; Hanson & Laffrey, 1999; Hillhouse et al., 2000). Indeed, a number of studies document the utility of the TRA in informing primary prevention efforts, including those aimed at preventing substance misuse in teens (Malmberg et al., 2012; Molloy et al., 2019; Stoddard & Pierce, 2018) and promoting help-seeking intentions (Ellis & Helaire, 2020; Shechtman et al., 2018). Meta-analytic studies demonstrate the efficacy of health interventions informed by the TRA and related theories (Albarracin et al., 2001; Cooke & French, 2008; Hagger et al., 2002; Sheeran et al., 2016).

Within the TRA, attitudes and norms are predictors of intentions, and intentions are predictors of behavior. This study focuses on one important aspect of this theoretical model, the link between attitudes and intentions in the context of help-seeking surrounding opioid misuse. Studies that test the application of the TRA to help-seeking typically examine the relationship between attitudes toward help-asking, help-seeking norms, and help-seeking intentions (Schomerus & Angermeyer, 2008a; Shechtman et al., 2018). This is because according to the TRA, an individual's overall attitude toward the behavior—in this study, the attitude towards help-seeking—influences behavioral intentions—in this study, help-seeking intentions (Fishbein & Ajzen, 2011). To understand other potential attitudinal factors that may influence intentions to seek help, this study focuses on attitudes towards opioid misuse, specifically stigmatized attitudes towards opioid misuse. Attitudes surrounding opioid misuse may be less proximal influences on help-seeking intentions than attitudes and norms surrounding help-seeking, however stigmatized attitudes are a robust barrier to help-seeking in multiple domains, including opioid misuse (Dennis et al., 2021; Kennedy-Hendricks et al., 2017). The Theory of Reasoned Action has been used to explore the role stigma plays in the help-seeking intentions surrounding

mental health counseling in adults and college students (Kuo et al., 2015; Vogel et al., 2007; Vogel et al., 2005).

Current Study

The purpose of this study is to examine the role of opioid misuse stigma in the help-seeking intentions of early adolescents. This study examines the prevalence of students' intentions to seek help from teachers related to opioid misuse, differences in students' intentions to seek help from teachers on behalf of themselves, a friend, or a family member, and demographic (e.g., gender, SES, race/ethnicity) differences in students' intentions to seek help from teachers. Finally, the study explores whether two forms of stigmatized attitudes – personal stigma and perceived teacher stigma – are associated with lower help-seeking intentions.

Method

Participants and Procedure

Data for this study was collected during the pretest assessments of a larger study that evaluated an opioid prevention program (Evans et al., 2020). In fall 2018, participants were recruited from three public middle schools in a rural community in the southeastern United States. All 7th grade students were eligible to participate (n = 753). We received passive parent consent and active student assent prior to study participation. Six parents opted their children out of the study and an additional eight students did not wish to be included. In these cases, students were still required to complete the opioid prevention program as part of a school-sponsored activity, but they did not complete the survey assessments. An additional 61 students were absent on the day of the program and did not participate. Of the remaining students, 686 took part in the program and 619 completed electronic surveys. Various factors related to day-to-day operation within a school (e.g., fire drills, students called to the office, shortened class periods) kept us from collecting complete data from all students who participated in the program.

The help-seeking measures that are the focus of the current project were added after data collection in the first school was complete. Thus, our sample drew from 340 7th grade students with complete data on our outcome variable. Of note, nearly 9% (n =30) of students reported previous misuse of opioids. These participants were omitted from our analysis for two reasons. First, mean help-seeking scores for students who reported previous opioid misuse (M = 1.82, SD = 0.94) differed significantly from their peers who did not report previous opioid misuse (M = 2.51, SD = 0.93), $t(336) = 3.83$, $p < .001$. Further, these students were omitted because responding to help-seeking scenarios for these students was not hypothetical and thus their answers may have a different meaning.

Additionally, two other groups of participants were omitted based on their responses to a question about personal contact, which queried whether students knew someone who had misused opioids. Fifteen percent (n = 50) of the remaining students indicated that they knew someone who had misused pain medications, and 17% (n = 56) participants responded to the personal contact question by answering "prefer not to say." There was a statistically significant difference between groups as determined by a one-way ANOVA, $F(2,330) = 3.06$, $p = 0.048$. A Tukey post hoc test revealed students who declined to answer the personal contact question had significantly lower help-seeking scores (M =2.24) than students who indicated that they did not know someone who misused opioids (M = 2.6, p = .03). There was no significant difference between students who knew someone who misused opioids and students who declined to answer (p = .26). In addition, there were no significant differences between students who knew someone who misused opioids and students who did not report knowing anyone who misused opioids (p = .92). Students who knew someone who had misused opioids were omitted based on the rationale that they were not responding to a hypothetical scenario surrounding help-seeking. Students who

declined to answer were omitted based on their significantly lower help-seeking scores and based on previous work, which demonstrates that "prefer not say" responses are difficult to interpret (Krosnick et al., 2002). In an effort to guide future intervention efforts demographic information on students omitted from analysis is included in Table 1. The final sample consisted of 195 young adolescents with no prior experiences with opioid misuse. As shown in Table 2, the sample was 40% girls and had significant racial and ethnic diversity. Forty-four percent of the sample identified as Latinx, 28% White, and 21% Black.

The program was delivered in school during a single class period by a trained presenter. The intervention and pretest and posttest assessments took place in students' regular classroom during a single 70-90 minute class period. In most cases the classroom teacher was present, but not actively involved with administering the surveys or the intervention. Anonymous pre and post intervention measures were completed on laptop computers or tablets in the classroom. Stress balls, pens, and other small incentives were distributed to students during the program for active participation. All participants were given a bookmark with resources related to mental health and substance abuse at the completion of the program.

Measures

Demographics. Data was collected on race/ethnicity and gender. Socioeconomic status was assessed using one item which asked whether students received free or reduced lunch, a frequently used proxy measure of individual-level poverty (Day et al., 2016).

Personal Contact & Personal Misuse. To assess personal contact with someone how had misused opioids, students were asked the following question: "Do you know someone who has misused pain pills?" Response options included "yes", "no", and "prefer not to say". To assess personal misuse of opioids, students were asked: "Have you ever taken prescription pain

medicine without a doctor's prescription? (This includes drugs such as codeine, OxyContin, Hydrocodone, and Percocet.)" Response options were "yes" or "no".

Perceived Teacher Stigma. To measure perceived teacher stigma surrounding opioid misuse, the stem of a portion of the Brief Opioid Stigma Scale was adapted (Yang et al., 2019). The original scale probed public stigma, so the original item stem was adapted from "Most people believe" to "My teachers believe." This scale consists of four-items asking whether respondents believe their teachers believe that those who misuse opioids are dangerous, untrustworthy, to blame for their problems, or lazy. Responses are on scale from 1 = "strongly disagree" to 5 = "strongly agree." A sample item is "My teachers believe a person who is addicted to pain pills/opioids cannot be trusted." Item scores were averaged to create a composite score with higher scores indicating higher levels of perceived teacher stigma (Cronbach's α = .80).

Personal Stigma. To measure personal stigma surrounding opioid misuse, the remaining part of the Brief Opioid Stigma Scale was used. It consists of four items measuring whether those who misuse opioids are dangerous, untrustworthy, to blame for their problems, or lazy. Responses are on a scale from 1 = "strongly disagree" to 5 = "strongly agree." A sample item is: "I believe a person who is addicted to pain pills/opioids is to blame for his or her problems." Item scores were averaged to create a composite score with higher scores indicating higher levels of personal stigma (Cronbach's α = .75).

Help Seeking Intentions. The willingness to seek help items were taken from the General Help Seeking Questionnaire (Wilson et al., 2005), the most commonly used measure according to a 2017 systematic review of help seeking measures used in adolescents (Divin et al., 2018). This questionnaire focused on identifying sources of help-seeking. Three items used in

this study measured whether respondents would ask their teachers for help for opioid related issues, probing the likelihood of seeking help on their own behalf, on behalf of a friend, and on behalf of a family member for opioid related issues. For instance, a sample item was "I would get help from a teacher if I had a problem with pain pills or other opioids." Responses were rated on a scale from 1 = "very unlikely" to 4 = "very likely." Item scores were averaged to create a composite score with higher scores indicating higher levels of help-seeking intentions (Cronbach's α = .82).

Sample Size Calculation

All available 7th graders who gave assent and who had parental consent to participate in the study were included in the sample. A power analysis was conducted using G-power to ensure the final sample of participants was sufficient to detect an effect. With power exceeding .80 and alpha set at .05, it was determined that the sample size for the proposed study n = 68 would be needed to detect a moderate effect and n = 485 to detect a small effect. Effect sizes were determined based on a meta synthesis of the association between stigma and help-seeking, which were modest (d = -0.27) (Clement et al., 2015).

Data Cleaning and Missing Data

Nine participants (4.6%) were missing one or more responses on the demographic variables or the stigma measures. An independent sample t-test was performed to determine if data from participants who were missing data were significantly different in their help-seeking intentions than those who were not missing data. No significant differences were found, $t(193) = 1.38$, p = .105. Person-mean substitution was used for all subsequent analysis (Hawthorne et al., 2005).

Preliminary analyses were conducted on stigma and help-seeking variables to ensure no violation of the assumptions of normality, homoscedasticity, linearity, and multicollinearity. All assumptions were met: the predicted probability plot was normal indicating that the residuals of the regression follow a normal distribution; the scatterplot of the residual was examined, and the data was homoscedastic. Given that our residuals were normally distributed and homoscedastic, the linearity assumption was met (Osborn & Waters, 2002); multicollinearity was examined by checking the variance inflation factor (VIF) values, both of which were less than 1.5 (Belsley et al., 1980a, 1980b).

Results

Frequencies

Mean stigma scores indicated neutral attitudes towards opioid misuse (M = 3.11) in a five-point Likert scale. In addition, participants perceived their teachers attitudes toward opioid misuse to be neutral (M = 3.26).

Participant Characteristics and Help-Seeking Intention. To examine help-seeking intentions related to opioid misuse, I examined descriptive statistics and frequencies (see Table 2). I also conducted a series of t-tests and a one-way ANOVA to address whether there were demographic differences in students' help-seeking intentions. There were significant differences in help-seeking intentions between boys (M = 2.72, SD = .94) and girls (M = 2.44, SD = 0.88), t(190) = 2.13, p = .03. Girls reported lower intentions to seek help from teachers. Students identifying as transgender (n = 3) were not included due to insufficient power. There were no significant differences in help-seeking intentions between those who qualified for free lunch (M = 2.60, SD = 0.93) and those who did not (M = 2.60, SD = 0.93), t(189) = -0.001, p = .99. A one-way ANOVA was used to determine differences in help-seeking by race/ethnicity coded as

Latinx, Black, White and all other groups. No significant differences were found, F(3,191) = 0.372, p = 0.77.

Item Level Analysis of Help-Seeking Differences

To address whether there were differences in students' willingness to seek help from teachers on behalf of themselves, a friend, or a family member, I analyzed each of the help-seeking items. I conducted a series of three paired sample *t*-tests to determine if there are significant mean differences on intention to seek help based on the recipient of the help. A Bonferroni correction was used to control for multiple comparisons, $p = .017$.

There were significant differences in students' willingness to seek help from teachers based on who the help was for. Students were less likely to seek help on behalf of themselves than a friend, $t(192) = -7.14$, $p < .001$. Students were also less likely to seek help for a family member than a friend, $t(192) = -7.70$, $p < .001$.There were no significant differences between the help-seeking intentions on behalf of the self and a family member, $t(192) = 1.04$, $p = 0.30$.

Examining the Association between Stigma and Help-Seeking

In line with the Theory of Reasoned Action (Ajzen & Fishbein, 1977), I examined whether stigmatized attitudes were associated with help-seeking intentions. To determine whether higher stigma was associated with lower help-seeking intentions, I conducted a linear regression. I controlled for gender because there were significant differences in help-seeking intentions between girls and boys. Regression statistics are reported in Table 2. The multiple regression revealed that neither personal stigma nor perceived teacher stigma contributed significantly to the regression model, $F(3, 185)= 2.27$, $p < .09$, and accounted for 3.6% of the variance in help-seeking. Neither personal stigma ($\beta = 0.13$, $p = .17$) nor perceived teacher

stigma (β = -0.13, p = .17) were significantly associated with help-seeking intentions in the model.

Discussion

The focus of this study was to describe students' intentions to seek help from teachers related to opioid misuse. The goal was to contribute to the existing work on the relationship between stigma and help-seeking by describing help-seeking intentions in a sample of diverse, rural, young adolescents. In addition, as a theoretical framework, this study relied on the TRA (Ajzen & Fishbein, 1977) by probing potential associations between attitudes towards opioid misuse and youth help-seeking intentions. Studies on help-seeking intentions of early adolescents towards teachers tend to focus on asking teachers for academic help (Ryan & Shin, 2011) or for help with bullying (Bandyopadhyay et al., 2009). Further there are no studies that examine help-seeking from teachers for opioid misuse in this age group.

This analysis was grounded in the Theory of Reasoned Action to investigate the link between attitudes and intentions in the context of help-seeking for opioid misuse among middle school students. The TRA would predict an inverse association between stigmatized attitudes and help-seeking intentions. However, contrary to previous findings, this study did not demonstrate associations between stigma and help-seeking intentions. Previous studies on adolescents consistently demonstrate a modest negative association between personal stigma and help-seeking (Ballon et al., 2004), however in this sample personal stigma was not associated with help-seeking intentions. Regarding the relationship between how students perceive their teachers' attitudes towards opioids misuse and their own help-seeking intentions, I found that perceived teacher stigma was not associated with help-seeking. Previous work on adolescents

has identified anticipated stigma from school staff as a barrier for help-seeking (Berridge et al., 2018; Chandra & Minkovitz, 2007).

The premise of this study was that stigma surrounding opioid misuse would act as a barrier to help-seeking. However, students' attitudes surrounding opioid misuse were neutral. That is, means and modes of both stigma measures and all stigma items hovered around 3, indicating that most students chose the neutral option. Because the mean age for participants was 11.5, it is possible that students had not been exposed to or developed attitudes surrounding opioid misuse. Public health campaigns aimed at preventing opioid misuse do not often target early adolescents, instead efforts tend to focus on adults, who are more likely to experience opioid related fatalities (CDC, 2017). Broadly, opioid prevention efforts have been accused of using stigma (Freyer & Thompson, 2017). Further work on the development of stigma surrounding opioid misuse in young adolescents and the acceptability of public health messages aimed at young adolescents which prevent opioid misuse and promote help-seeking is needed.

According to the TRA, a more salient attitude impacting help-seeking intentions is the students' attitude toward receiving help from a teacher (stigma surrounding help-seeking) which was not measured. Recent work has demonstrated that in adolescents stigma associated with help-seeking is a barrier for help-seeking in the context of mental health counseling (Shechtman et al., 2018). Peers are another important consideration in understanding potential attitudinal barriers to help-seeking in young adolescents. Previous work has demonstrated that peers are important to adolescent drug use decision making (Petraitis et al., 1995; Stoddard & Pierce, 2018; Vogel et al., 2015).

Importantly, the students in this sample reported high help-seeking intentions, indicating a willingness to seek help from their teachers for opioid misuse. I note this because the primary

aim of this study was to identify attitudinal barriers to help-seeking intentions, however in this sample, the majority of our participants indicated a willingness to seek help from their teachers for opioid misuse. Mean help-seeking scores indicate that most students were "likely" or "very likely" to seek help from their teachers. In our study, help-seeking intentions differed based on the recipient of the help. Participants were more willing to seek help on behalf a friend or themselves than a family member. More than half the participants reported that they were likely or very likely to seek help from a teacher for themselves (65%) or a friend (70%), whereas 48% indicated that would do so for a family member.

These findings are encouraging because help-seeking is often the first step towards getting appropriate treatment. Developmentally, attitudes towards help-seeking shift in early adolescence. In childhood help-seeking is associated with positive outcomes, however in early adolescence, youth begin to weigh both the benefits and the costs in determining whether to seek help (Newman, 1990). In addition, young adolescents with substance use problems who do not seek help or delay help-seeking are likely to experience a number of negative health outcomes (Divin et al., 2018).

Help-seeking did differ based on gender with girls reporting lower help-seeking intentions than boys. This is inconsistent with previous work surrounding help-seeking for mental health (Ando et al., 2018; Mackenzie et al., 2006). Finding are mixed regarding the role of gender in help-seeking for substance abuse (Verissimo & Grella, 2017), however women underutilize substance abuse treatment compared to men (Greenfield et al., 2007). Future studies should investigate how gender impacts young adolescents' help-seeking intentions in order to inform interventions promoting help-seeking, particularly those aimed at girls.

Help-seeking did not differ based on ethnicity, or SES, which was unexpected based on previous work with adults. Past work has demonstrated that people of higher socioeconomic status and white people tend to report more favorable attitudes towards help-seeking (Ayalon & Young, 2005; Leavey et al., 2011). It may be that in early adolescence, cultural expectations based on SES, and ethnicity are not as salient as they are in high school youth, particularly when these factors intersect (De Luca et al., 2019; Kågesten et al., 2016). It is also possible that the context differed. That is, perhaps growing up in a diverse, rural, and relatively under-resourced community equalizes rather than stratifies social expectations.

An important contribution of this study was finding that nearly 9% of the early adolescents sampled indicated that they had previously misused opioids. This is higher than expected, even in a high-use area; past findings indicate that 3.6% of 12-17 year-olds reported misusing opioids in the past year (Substance Abuse and Mental Health Services Administration, 2017). Importantly help-seeking intentions for this group were significantly lower than for participants who did report previous opioid misuse. Additionally, 15% of the students in our sample reported knowing someone who had misused opioids and an additional 17% of participants declined to answer whether they knew someone who misused opioids. Though it is difficult to situate these finding in the existing literature on adolescents, a recent adult study found that nearly one in three Americans know someone addicted to opioids (American Psychiatric Association, 2018). Although participants who had previously misused opioids, knew someone who had previously misused opioids were omitted from the analysis in this study, these participants serve as salient reminders that there is a need for both primary and secondary opioid prevention efforts aimed at youth. These 83 participants are the youth who are most in need of intervention, and for whom help-seeking for opioid misuse is not hypothetical.

Limitations and Future Directions

Results of this study should be interpreted with caution, based on a number of limitations. First, this study focused on one sample that was particularly hard hit by the opioid epidemic. We drew our participants from two schools in a rural community in the southeastern United States. These results may not generalize to youth from other parts of the county, as evidence is mixed on whether stigma surrounding help-seeking is more pronounced in rural communities. Hammer et al. (2013) and (Larson & Corrigan, 2010) have found evidence that stigma is more prominent in rural commutes for substance abuse and mental illness. However, Dschaak and Juntunen (2018) did not find difference in help-seeking based on rurality. Future studies should examine the relationship between stigma and help-seeking for opioid misuse in urban and suburban youth.

Secondly, we used a correlational design, assessing help-seeking intentions at one time point. This design limits our ability to make causal conclusions. Future work with youth should focus on measuring help-seeking longitudinally to understand how this important skill develops over time. Our outcome variable, help-seeking, assessed probable behaviors and cannot measure actual help-seeking behavior. While we know that help-seeking intentions are associated with help-seeking behavior in some emerging adult samples (Nagai, 2015), longitudinal work would provide more information about the development and strength of this association in youth.

In addition, the survey design required youth to disclose sensitive information about opioid misuse, potentially evoking a social desirability bias. Although all assessments occurred in school, confidentiality was emphasized, and demographic data that would have been identifiable was not collected (including classroom and school), it is possible that opioid misuse or stigmatized attitudes were underreported, which may limit the conclusions we can draw.

Notably, there were a number of youth who opted not to disclose whether they knew someone misusing opioids, which could reflect the stigma associated with opioid misuse.

The measurement of stigma, in particular perceived teacher stigma, is difficult to interpret. The stem for the perceived teacher stigma items was plural, meaning students were being asked to produce an average impression of teacher attitudes, perhaps resulting in a regression to the mean. Further work could help clarify whether this was because students were unsure of their teachers' attitudes towards opioid misuse or were indeed neutral. Finally, the focus of this study was youth and data were only collected from youth's perspective; however, understanding the unique role of teachers in addressing the stigma related to opioid misuse requires the inclusion of educators as well. Further studies should examine whether and how teachers communicate with their students about the opioid epidemic in classrooms.

Conclusion

Despite these limitations and unexpected findings, this study constitutes an important step in understanding help-seeking for opioid misuse in young adolescents. Our findings underscore the need for a better understanding of help-seeking in young adolescents surrounding opioid misuse. Although we found that stigma surrounding opioid misuse was not a barrier for help-seeking, it is critical to understand barriers to help-seeking for students who are at risk for opioid misuse. Given percentage of opioid misuse in our sample, and the percentage of youth who reported being proximal to opioid misuse, future efforts should focus on understanding how best to address opioid misuse in schools.

Table 1

Omitted Participants Characteristics

	Personal Misuse	Know someone who misuses opioids	Decline to answer personal contact question
	n	*n*	*n*
Total	30	53	65
Girl	19	26	37
Black	11	8	15
Hispanic	8	17	22
White	9	24	21
Receiving Free/Reduced Meals	18	33	45

Table 2

Descriptive Statistics

Sociodemographic Characteristics of Sample	*n*	*%*
Gender		
Boy	114	58.5
Girl	78	40
Transgender/Other/Prefer not to say	3	1.5
Race/Ethnicity		
White/Caucasian	55	28.2
Black	41	21.0
Latinx	86	44.1
Asian	3	1.5
Other race/ethnicity	10	5.1
SES		
Receiving free or reduced meals	124	63.6
Not receiving free or reduced meals	67	34.1
Primary Study Variables	***M***	***SD***
Perceived Teacher Stigma	3.27	0.79
Personal Stigma	3.11	0.86
Help-seeking Intentions	2.60	0.93
On behalf of self	2.46	1.12
On behalf of a friend	2.95	1.01
On behalf of a family member	2.38	1.13

Table 3

Regression Analysis Examining Stigma and Help-Seeking Intentions

	B	*SE B*	*β*
Gender	-.241	.128	-.138
Personal Stigma	.140	.101	.132
Perceived Teacher Stigma	-.149	.108	-.130
r^2	-	.036	-

CHAPTER 3

Responding to an Epidemic: Teacher Communication about Opioid Misuse

Teachers are widely regarded as a protective factor for youth experiencing trauma (Dods, 2013; Leshem et al., 2016). Studies that examine teacher responses to student trauma tend to focus either on individual adversity (such as the death of a loved one) or on collective trauma, such as war or a natural disaster (Alisic, 2012; Baum et al., 2009; Johnson & Ronan, 2014; Werner, 2012). Sociologist Kai Erikson explains how individual and collective trauma differ:

> *By individual trauma I mean a blow to the psyche that breaks through one's defenses so suddenly and with such brutal force that one cannot react to it effectively…by collective trauma, on the other hand, I mean a blow to the basic tissues of social life that damages the bonds attaching people together and impairs the prevailing sense of communality. The collective trauma works its way slowly and even insidiously into the awareness of those who suffer from it, so it…[is] a gradual realization that the community no longer exists as an effective source of support* (Erikson, 1976, p. 153).

It is unclear how teachers communicate with their students in communities impacted by the opioid epidemic, a collective trauma (Brand, 2018).

Studies that examine teachers who work in communities impacted by the opioid epidemic focus on the unmet needs of teachers, rather than on how working in under-resourced conditions impact teacher-student interactions surrounding the opioid epidemic (Welby, 2019). The goal of the current study is to address this gap by focusing on how teachers in an under-resourced rural community impacted by the opioid epidemic communicate with their students about opioids. Using the social ecological model as a framework (McLeroy et al., 1988), the current study explores three ways that teachers respond to the opioid epidemic in the context of an under-resourced community. The responses include: misunderstanding student context, topic avoidance, and topic integration.

The Opioid Epidemic

The opioid epidemic is an iatrogenic public health crisis. Opioid-related overdoses are responsible for 130 deaths each day in the United States (CDC, 2020). In adolescents, the prevalence of opioid misuse is second only to the illicit use of marijuana (National Institute on Drug Abuse, 2011). Although most studies on adolescents focus on personal misuse, opioids have had a devastating impact on the lives of adolescents who live in communities hit hard by the opioid epidemic. In 2017, more than 2 million youth were either living with a parent with opioid use disorder, had lost a parent due to death or long-term incarceration for opioids, or had been removed from their home due to parental opioid misuse (Brundage, 2019). Currently, researchers have begun to examine the indirect downstream impacts of the opioid crisis for youth, and their education as well as the difference between how rural and urban communities have been impacted. For example, a recent study focusing on educational outcomes has found that third graders who live in counties with high opioid mortality rates have lower test scores than their peers in communities with low opioid mortality rates (Darolia & Tyler, 2020). Further contextualizing the communities impacted by opioid misuse, studies show that adolescents from rural communities experience a higher risk of opioid exposure and are more likely than their urban peers to report prescription opioid misuse (Havens et al., 2011). In fact, rural youth have a 35% greater chance of prescription opioid misuse compared to youth from urban areas (Monnat & Rigg, 2016). While research has begun to broaden our understanding of opioid misuse in rural areas and the downstream impact on education, what researchers have not done is provide an account for the role teacher communication plays as it pertains to discussion with students about opioid misuse.

The Role of Teachers

There is a wealth of evidence to support the important role that teachers play in the social and emotional development of their students (Baker et al., 2008; Bronfenbrenner, 1979). Rural youth often have limited access to mental health care compared to their urban peers (Moore & Probst, 2005); and more pressingly, teachers in rural communities play an important role by connecting their students with social-emotional supports (Nichols et al., 2017). Teachers, more than parents or peers, have the strongest impact on students' psychological experience in the classroom (Osterman, 2010). Teacher-student relationships impact students' neurobiology, such that positive teacher-student relationships can buffer children from stress (Ahnert et al., 2012). Positive teacher-student relationships also act as a protective factor for poor students (Liu et al., 2021).

Healthy teacher-student relationships involve conveying and perceiving high levels of social support (Suldo et al., 2009). For middle school students, teacher social support is linked to academic outcomes, including school attendance and self-efficacy (Brewster & Bowen, 2004; Rosenfeld et al., 2000). In addition, supportive teacher-student relationships are linked to beneficial social emotional outcomes, such as psychological and behavioral adjustment, positive peer relations, subjective wellbeing, and decreases in suicidal ideations, externalizing behaviors, emotional distress, violence, substance abuse and sexual activity (Hughes et al., 2001; Paulson & Everall, 2001; Resnick et al., 1997; Suldo et al., 2009; Way et al., 2007).

Social support is a multidimensional construct involving four distinct types of social support (emotional, instrumental, appraisal and informational) (Tardy, 1985). Of these, teacher emotional support which involves offering care, comfort, and help to students in a way that is nonjudgmental and free from stigma is particularly important for middle school students (Heath

& Cole, 2012; Malecki & Demaray, 2003; Trickett & Moos, 1973). Middle school is a critical developmental period during which social relationships gain prominence, and at the same time, self-esteem is lowest during the transition from elementary school to middle school (Wigfield et al., 2005). Teacher emotional support is a robust predictor of positive psychological outcomes, and is associated with a range of positive student behaviors in the classroom, including increased effort, help-seeking, and cooperation with peers (Marchand & Skinner, 2007). Further, teacher emotional support is also associated with better psychological functioning (Ahn et al., 2017) and fewer somatic complaints (Sikora, 2019).

The impact of teacher emotional support also extends beyond the classroom or school. When students perceive teachers to be more emotionally supportive and available, they are more likely to seek help about a range of problems and concerns, including substance use (Stephens et al., 2009). In addition, teacher emotional support is linked to reductions in health risk behaviors including drug use in adolescents (McNeely & Falci, 2004). Teacher emotional support promotes school connectedness (Rosenberg et al., 2018) which in turn serves as protective factor for drug abuse (Catalano et al., 2004; Goodenow, 1993). Given that teachers play a critical role in buffering youth from the deleterious effects of trauma (Rosenberg et al., 2018; Wolmer et al., 2005), understanding how teachers respond to their students in the context of the opioid epidemic is a critical step to improving educational and social outcomes for youth in communities impacted by the opioid epidemic.

In general, studies of teacher-student communication primarily focus on communicating academic content, particularly informational and emotional support regarding academic outcomes (Howe et al., 2019; Khan et al., 2017; Malecki & Demaray, 2003; Tennant et al., 2015), yet less is known regarding how teachers approach discussions with students on

community health issues. In a separate and somewhat siloed literature, studies investigating effective communication strategies for talking with adolescents about sensitive health topics often target clinicians (Ballon et al., 2004; Mulvihill et al., 2005). Recommendations encourage providers to attend to common communication challenges between health providers and adolescents, which include lack of trust or emotional safety, concerns for confidentiality, and organizational constraints such as short contact time (Alli et al., 2012; Binder et al., 2011; Britto et al., 2010; Hudson et al., 2008; Kim & White, 2018; Klostermann et al., 2005). This study attempts to explore communication between teachers and students in the unique context of a rural community hit hard by the opioid epidemic.

Theoretical Framework

This study is guided by the social ecological model (SEM), which argues that behavior is shaped by factors at multiple levels, including the individual or intrapersonal level, interpersonal or relational level, community level and societal level (McLeroy et al., 1988). According to the SEM, each level is part of a larger system (Simons-Morton et al., 2011). For instance, in this study, an individual teacher's communication surrounding opioid use is impacted by several factors simultaneously. These factors include the teacher's social and physical environment as well as the policy and culture of the communities with which the individual teacher interacts. The SEM illustrates the interaction between individuals, their relationships and their environment and assumes these interactions are interconnected. In this study, the SEM provides a framework which situates teachers' responses to their students in context. That is, teachers' descriptions of their interactions with students surrounding the opioid epidemic exist in an environment impacted by the opioid epidemic. Examining the opioid epidemic in the classroom through the lens of the SEM, places the focus not on individual teachers, but on the systemic

forces that are shaping teacher communication. This allows for the identification of prevention and intervention strategies to promote effective teacher communication at multiple levels of the SEM. This study was guided by the following research question:

RQ: How do teachers in a rural community impacted by the opioid epidemic communicate with their students about the opioid epidemic?

Method

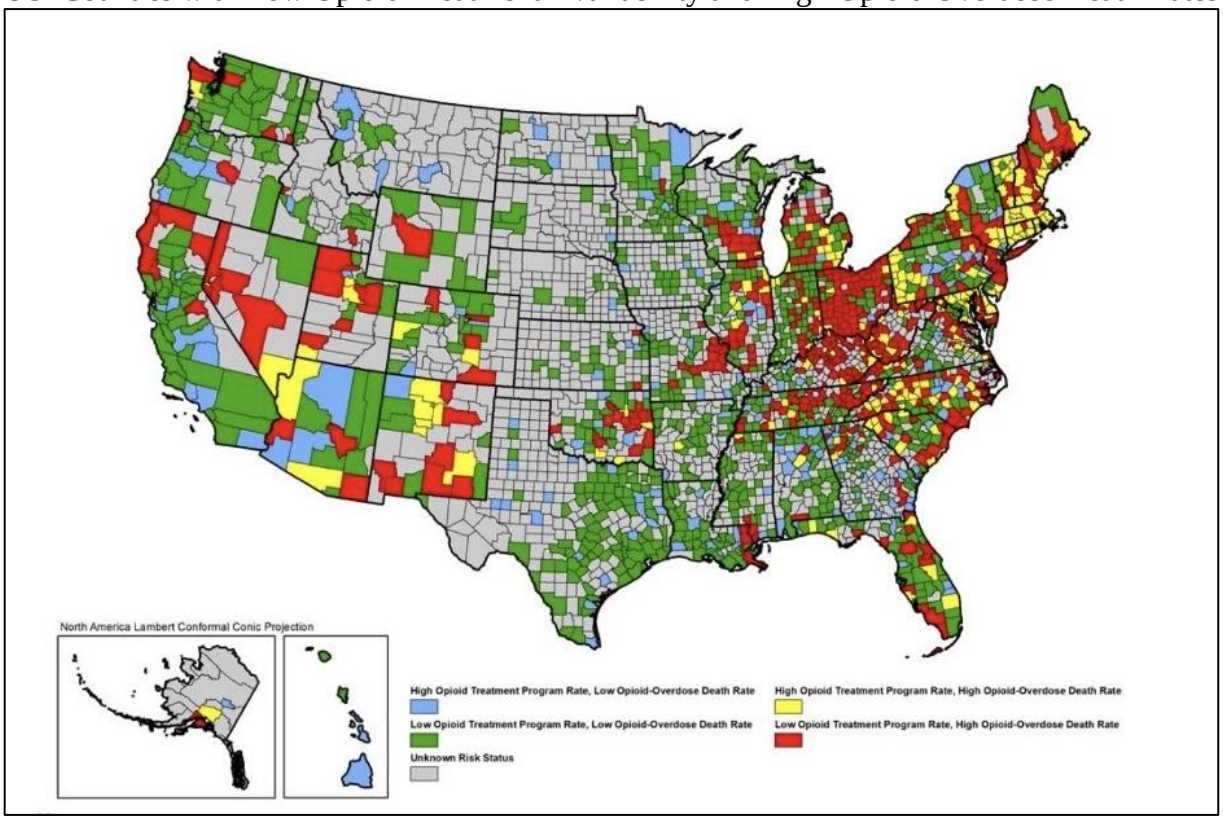
Research Context and Participants

County Context

Bedford Forrest is a pseudonym for a county located in the southeast US. With fewer than 75,000 residents, the county is classified as "rural" by the Department of Health and Human Services' Federal Office of Rural Health Policy. The county has the feel and history of a small southern manufacturing town. But there is also evidence that it is modernizing and is home to a growing Latinx community. Like many southern communities, there is a memorial to a confederate general in the town's central public area (Winberry, 2015). There are multiple Mexican cantinas, dollar stores, and pawnshops. Approximately 60% of county residents are white, and the majority remaining residents are Latinx or Black. About one in 10 residents of Bedford Forest were born outside the US. As of 2017, nearly 15% of county residents were considered impoverished by the U.S. Census Bureau and 15% did not have health insurance. Among the metrics researchers and policy makers use to identify "at risk" communities and to track the opioid epidemic are opioid related deaths and access to medication assisted therapy. Bedford Forrest County was recently identified as an "opioid high-risk county" because of a high (higher than national average of 12.5 per 100,000) opioid mortality rate and low access to treatment for Opioid Use Disorder medications (Haffajee et al., 2019).

Figure 6

US Counties with Low Opioid Treatment Availability and High Opioid Overdose Death Rates



Note. From Haffajee, R. L., Lin, L. A., Bohnert, A. S., & Goldstick, J. E. (2019). Characteristics of US counties with high opioid overdose mortality and low capacity to deliver medications for opioid use disorder. *JAMA network open, 2*(6), e196373-e196373.

School Context

The county is home to three middle schools which were included in this study: Central Forrest, North Bedford and South Bedford. Each of the three schools has a racially diverse student body—more than 60 percent of middle school students are Black or Latinx. Although data on teachers was not available, the majority of the teachers were White or White-passing based on school observations, web profiles, and interviews with principals. According to state data, each school had more students who are economically disadvantaged than those who are not, and each had low scores on state math tests

There are important differences between the schools. Central Forrest is the largest middle school in the county, serving 950 students, and it feels spacious and looks new. There are

conference rooms, plush seats in the office waiting area, shiny floors and windows everywhere. Educators throughout the county regard it as the most resourced school in the county. However more than 70 percent of Central Forest students qualify for free or reduced lunch and the two school counselors each serve about 30% more students than their colleagues at North and South Bedford. Of the three middle schools, Central Forest received the highest grade, a C, on its state report card in 2019.

North Bedford and South Bedford middle schools are housed in identical structures, rows of buildings connected by covered walkways. Though they are situated in opposite poles of the county, it is easy to forget which is which once you are inside. Both schools are warm and bustling. Monitors display friendly announcements in the waiting areas which double as entryways. There are nods to each school's mascots on the walls, and cheerful quotes. The furniture is worn and comfortable. Both schools are bursting at the seams, each serves around 650 students. Some classrooms could not fit one more desk. Both schools got some D ratings on an A-F state school report card.

Educators from other middle schools in the community characterized the student populations at North Bedford as "rural poor". These are the county kids, according to local lore, but the cultural significance of this is not evident to outsiders. The school feels more isolated, feels farther away from the town's center, and closer to the manufacturing and agricultural businesses. South Bedford on the other hand, serves the county's most affluent families as well as those who live in the municipalities' public housing. Staff turnover at South Bedford was high, both with teachers and administrators—however a handful of teachers had been there for more than a decade.

Participants/Individual Context

Twenty-two teachers participated in semi-structured interviews. At Central Forest, eight teachers participated. Five were female and three were male. At both North and South Bedford, seven teachers were interviewed. At both schools, four educators were female and three were male. At North Bedford, one interview was not recorded due to a technological malfunction. Though this interview was not coded, a voice memo the interviewer recorded was transcribed directly after the interview and used to support data analysis. See Table 3 for a more complete description of participant characteristics. I have collapsed Race/Ethnicity so that participants are described as White or Not White. This decision means that the complexities of a teachers' racial/ethnic identity are lost even though racial/ethnic identity is an important factor in any examination of teacher-student communication. However, this decision was made to maintain the anonymity of the small number of Non-White participants. In addition, ranges are provided, and school-level participant information are omitted to maintain participant anonymity.

Recruitment

We contacted the principals at the three traditional middle schools in the county: Central Forest, North Bedford, and South Bedford. An initial wave of teachers was recruited via school principals using purposive sampling. Principals were interviewed to gain an introduction to the culture of each school and asked to identify a range of educators, those who were highly engaged with students and those who were less engaged.

At Central Forest all eight interviewees who were invited to participate were selected by the principal. At North Bedford we were provided with the contact information of two teachers by the principal. Both agreed to be interviewed. At South Bedford, we were provided with an initial list of 10 educators by the principal. Of those, three teachers agreed to participate. Once

interviews were underway at North and South Bedford, we used snowball sampling to recruit nine additional teachers, five more at North Bedford and four more at South Bedford.

Procedure

Potential participants were emailed and provided with a brief overview of the study. Individual, semi-structured interviews were conducted with educators who agreed to participate (See Appendix 1 and 2 for interview protocol). Ethics approval was obtained from the University IRB. The interviews were designed to explore participants' knowledge and attitudes of the impact of opioid misuse in the county on students. Interviews ranged from 16 minutes to 40 minutes and lasted 28 minutes on average. All interviews were conducted by female researchers in person either in the educator's classroom, office, a school conference room, or at a local coffee shop. All interviews were audio-recorded, and all participants gave written consent. Participants were asked to avoid using real names of people and places. Interviews were identified by date and time. Participants were assigned identification numbers and then pseudonyms. Participants were compensated with $40 gift cards immediately following the interview. Interviews were transcribed verbatim and any identifiable information was redacted during the transcription process. Observations and reflections were collected at three points in the interview process. Prior to meeting with interviewees, I wrote down details of interactions I observed in the school waiting areas and hallways. Following the interviews, I made audio recordings of my responses to interviewees and interview content. Finally, when checking and logging interview transcripts, I created a spread sheet with participant pseudonyms which included a column with enduring characteristics I remembered about each interview or interviewee. These notes were revisited multiple times throughout the data analysis process and were used to write about the research context my positionality.

Positionality

As a cis-gender white middle-class woman, who teaches and researches, I understand that it is possible, easy even, to live in a community (rural or urban) and remain distant from substance abuse. The result of this distance is the criminalization of substance abuse, which I believe is immoral and inhumane. I am shaped by experiences in childhood and in my early professional life in which I witnessed the consequences of our failure to treat addiction and began to understand that these consequences reach beyond the individual.

Growing up in an urban southern city, I saw people struggling with addiction daily in route to the public magnet schools I attended, none of which were walking distance from my house. In my twenties I lived and worked in a rural southern community as a beat reporter covering crime. Here too, I interacted daily with people living with addiction. I became a reporter during the beginning of what would later be called the meth epidemic. I reported on the rise of home labs to "manufacture" methamphetamines using ingredients available at Wal-Mart and sell the meth they produced for a large profit. Frequently the discovery of a meth lab would result in arrests, court appearances, hazmat teams, and the Department of Social Services to place dependents in temporary custody. I began to see the same faces in court and at the county detention center. I saw people who needed mental health support and addiction treatment, get labeled as "habitual felons," often spending their children's childhoods incarcerated. I frequently heard community leaders blame people living with substance abuse or experience poverty for their plight.

I am also shaped by my identity as a teacher and psychologist. I know that trust and safety are essential components of teaching, learning and research. As a result, I feel most comfortable with research that describes contextual (community and interpersonal) rather than

individual factors. These identities along with my previous experiences made me uniquely qualitied to explore teacher-student communication about opioid misuse. I also know that power dynamics and gatekeeping are inevitably woven into research and teaching interactions. I approached this project with the awareness that I would need to rely on the interview skills I honed as a reporter, including delivering a neutral response to comments I strongly disagree with. My teaching experience positioned me to establish rapport with the teachers who participated in this study, but it also initially hindered my analysis. In order to make sense of the data I collected, I had to set aside how I believed an individual teacher "should" communicate. This process involved re-examining the data with a focus on interpersonal rather than individual communication patterns.

Analysis Plan

I used thematic analysis to examine qualitative interviews. In examining teacher barriers to communicating with students about the opioid epidemic I relied on a social constructionist approach (Gergen, 1999). Such an approach argues that we actively and purposefully construct and interpret our own realities from the meanings that are available to us. Understanding educators' beliefs about opioids is assumed to both inform interactions with students and to be interpreted by students. I was guided by Braun and Clark's (2008) six steps to conduct thematic analysis.

To familiarize myself with the data, I checked the transcriptions of all interviews. Initial codes were generated by the primary investigator and based on interview notes, memos, and a person-centered communication framework (High & Dillard, 2012). Based on this codebook, one interview was preliminarily coded using pilot data. This process was used to refine the codebook, add new codes, and clarify definitions and examples of codes (See Appendix 3). Next, the first

author and undergraduate research assistant met to finalize the codebook. Once the codebook was finalized, two team members, the primary investigator and a research assistant coded 15 interviews independently. After completion of initial coding, team members met to discuss discrepancies in coding until consensus was reached for all passages. The first author coded the final seven interviews. The next steps of analysis involved searching for, reviewing, and writing about emergent themes. Finally, the first author consulted with a communication expert and framed the final analysis around communication experiences of teachers in the context of talking with students about community health and opioid misuse.

Results

Through semi-structured interviews, three themes emerged from the data when teachers described communicating with their students about opioid misuse. These three themes, which will be described in more detail below, were misunderstandings and assumptions, topic avoidance, and topic integration. The first theme, misunderstandings and assumptions, an individual level theme, focused on teacher misunderstanding of their students' risk for exposure to opioid misuse. The second theme, topic avoidance, a relational level theme, centered on teachers' avoidance of and lack of confidence surrounding talking with their students about opioid misuse. The third theme, topic integration, also a relational level theme, illustrates how teachers integrate discussions of opioid misuse into their disciplines.

Theme 1: Misunderstandings and Assumptions

Teachers described how their knowledge of Bedford County's opioid risk status might be impacting their students. Most teachers indicated they were aware that opioid misuse was a problem in Bedford County. They referred to well publicized statistics accessed via local news media about the county's high ranking on opioid overdoses. However, several teachers either did

not believe the county's high opioid risk status was impacting their students or inaccurately linked student race or socioeconomic class with opioid use risk.

For teachers, the disconnect between being knowledgeable about opioid misuse in the community but not believing opioid misuse impacted students seemed to stem from the belief that students would confide in their teachers if they were confronted with opioid misuse. Shelly, a teacher at South Bedford Forrest who lived outside of the county, described an experience in the Bedford Forrest emergency room. She said, "Just looking around the waiting room—like it—I don't know. It seems like. I mean I don't want to judge but it seems like people seeking opioids." But when asked about her students, Shelly believed that if opioid misuse was impacting her students, she would know. She noted,

> The thing with these kids is that they're pretty, it's pretty tight knit. And they tell each other's business all the time. That's why I feel confident that there isn't any like big use going on. 'Cause like I said, they'll tell each other's business quickly.

Michelle, a teacher at Central Bedford Forrest who lived in the county, described two separate experiences with students whose parents she believed were misusing opioids. When asked whether opioid misuse impacted her students, Michelle echoed Shelly's logic. She said, "I think, if it was an issue, in our grade level, I think our kids would be able to come to me 'cause they've come to me about other things. We just haven't had to deal with that."

Several teachers characterized Bedford County residents as sheltered. Many discussed a disconnect between their own personal experiences and their awareness of their students' potential proximity to opioid misuse. For example, one teacher confided that their partner was addicted to fentanyl. Later in the interview, this same teacher stated that they chose to teach in Bedford County because the youth were "more sheltered" than those from surrounding areas. Wayne, who lives in Bedford County mentioned several friends or family members had

overdosed on opioids, but then said, “I don’t really know if it’s too much of an issue at our school, it may be at another school but not necessarily here at our school…” Some teachers did not seem to consider, even when prompted, that the impact of opioid misuse extended beyond the user.

Two Physical Education/Health teachers talked about feeling out of touch with students’ experiences. Brandy noted:

> I bring up any type of touchy subject that I’m always a little nervous about what I might get in response because there are, you know, I grew up a little sheltered and so I wasn’t exposed to some of the things or a lot of the things that kids today are.

Jimmy echoed this sentiment in saying:

> I guess a lot of us sometimes, myself included, are just naive. Sometimes I feel like what I do with my family is what everybody is doing. Everybody should have a drug free house, and you know we’re going to church on Sunday and that’s not the case. But sometimes I think we get caught up in that and think that.

Jimmy and Brandy both reflected that their assumptions about their students’ lives are based on their own experiences.

Some teachers’ comments pointed to a difficulty to separating opioid misuse from other known demographic determinates of public health, such as poverty and race. These stereotypes prevented teachers from identifying opioid risk based on student behavior. For example, teachers who lacked clarity about how to talk about opioid misuse, race, or socioeconomic class tended to rely on coded language, or stereotypes to make sense of their interactions with students. Wayne, a teacher at Central Forrest, believed that opioid misuse impacted middle school students in the community, just not at his school. When asked why students at other schools might be impacted, he said, “Oh I mean I don’t know, make up of kids, make up of where they come from, uhm where they’re you know families may be different in a certain area of the county, I don’t know.” Some teachers attempted to indirectly link race or socioeconomic class with drug use by talking

about “inner city” kids—referring to the youth who lived in public or low income housing in the central part of the county. Teachers also used the moniker “dangerous kids” to talk about opioid exposure within the community. For instance, Leah, shared this story that her students related to her in which a student was rumored to be a drug dealer because he had money. She said:

> I had one fellow last year who, seventh graders come in all shapes and forms, he looked like a man. I mean, he really did and the kids were kind of afraid of him. And I-well the scuttlebutt was…Kids had come and said ‘you know that he deals drugs.’ Um, asked me what I thought. You know, when they ask for your opinion, I have to remain very, very neutral. It’s easy to slip up and that’s a fine line you have to walk because they have no filters and, um, really want my opinion on whether I thought he was selling drugs or not. And, um, that was a bit uncomfortable because it wouldn’t surprise me. I just said, ‘Uh, I really don’t know.’ They said, ‘Well, you know he always has lots of money,’ and that kind of thing. I said ‘Well, I certainly hope not,’ and I just sort of left it vague with the response and that, ‘Well, I sure hope not.’ Um, you know, the best thing you can do is stay away from it.

Other teachers, established distance from people who experienced addiction. Although she lived in Beford County, and was knowledgable about opioid misuse within the county, Christine, a teacher at North Bedford, noted that she was not the type of person who would be around opioids. She said:

> I’ve never been the type to be around it. Even in college, I was never around it. People asked me, well isn’t that a part of school? I’m like ‘Well, I wasn’t near it. I went for school. I never was looking for it in a way so...’

Teachers who conflated drug use with poverty tended to do so when telling stories aimed at explaining Bedford County residents. For instance, Leah, who taught at Central Forrest, mentioned that she believed opioid misuse impacted her students because her middle school served a large number of youth who were experiencing homelessness. When probed about the relationship between homelessness and drug use, she said, “I’m making an assumption that, um, a lot of times people are using their money to buy drugs instead of taking care of their families and providing housing and that kind of thing.”

This conflation also came up during stories aimed at introducing the idea that substance abuse impacted people at all levels of the socio-economic spectrum. Jimmy, a health and physical education teacher talked about the overdose death of family friend. He said:

> It wasn't, uh, very low-end, ya know, low income, type person. I mean this this gentleman, ya know, was a well established person, ya know, that that uhm had everything in the world going for him. So, ya know, we've had...I mean there's cases, ya know, from there all the way down to obviously your--ya know, maybe your your--low income people that are just uh drug abusers that have been known to be drug abusers ever since they came through high school or or got on drugs during middle school whatever. I mean obviously, you got those... but like I said there's also people that ya know we were just floored, ya know to see an overdose by someone like that, uhm ya know, [someone] that established and that had everything going for them…

These misperceptions were evidence that teachers were aware that opioid misuse is a community issue. However, teachers who believed their students are sheltered or at risk based on race or class, may miss opportunities to support students impacted by the opioid epidemic.

Theme 2: Topic Avoidance

Teachers were asked to describe how they would respond to a hypothetical help-seeking interaction with a student (see appendix A, question 10). All teachers mentioned they would make a referral to the school counselor. However, many teachers seemed eager to avoid engaging further with students on disclosures related to opioid misuse. For example, Wayne, described making a referral, and even offered advice, but would avoid engaging with the student about his or her emotions or experiences. He noted:

> I definitely wouldn't just let it go. I would, that would be something that I would definitely go to my administration, school counseling and um the social worker here at school. I would definitely go to them and contact them to see what the routes would be for that. What I'd say to the student um, I would probably mention about being safe, making good choices, and that kind of stuff.

Teachers overwhelmingly referenced self-protection when explaining their reasons for not communicating more with their students about opioid misuse. Teachers described three primary

reasons they avoided communicating with their students about opioid misuse: (a) teachers believed talking about opioid misuse to be outside the scope of their job; (b) teachers associated teacher-student communication about opioid misuse with danger and unprofessionalism, or (c) teachers did not feel equipped to respond to student issues surrounding opioid misuse.

Many teachers saw themselves as subject area experts and did not see talking about opioid misuse as part of their job. For instance, Michelle, said opioid misuse "is just something that has not come up in conversation. I teach mathematics, so that's not something that's gonna be…that comes out in conversation." Other teachers indicated that they wanted to provide emotional support to their students but feared saying something inappropriate. Trey focused on the danger of offering advice to students, saying:

> I do know that point of where I need to draw where the advice I give could get me in some hot water too, so. What'd we do, we listen and try to get as much information as we can. We kind of pass it up to the people that really know what they're doing.

Brandy, echoing Trey, described advising students was potentially "unsafe" or personally risky. She said:

> As much as I would love to be able to, um, you know have the conversation and help them in any way it is you know just something that may need further investigation that I could just mess that up by just giving advice or you know telling information or you never know whenever they go home well, you know, "she said this and I need to do this, this, that," and that and you never know the situation. So I always try to stay on the more safe side with that subject or the touchiness of that and just sort of you know pass it on along to whoever.

Additionally, Nadine talked about not having "the correct tools in my toolbox and not wanting to say the wrong thing."

Many teachers also believed that talking about opioids might inadvertently encourage opioid misuse. Michelle said she intentionally did not discuss opioid misuse with her students.

Speaking about incidents surrounding marijuana or alcohol she said she preferred to keep silent, saying:

> I think I like my kids not knowing if something happens in a different grade level. Because it still kind of keeps them innocent, but I know they need to be aware of it, but as far as it happening right, like, within contact, the less they know, sometimes I feel a bit better.

Even Health/Physical Education teachers who addressed opioid misuse in the curricula, were concerned that providing students with information would encourage opioid misuse. One teacher indicated:

> It's sort of a gray area. We don't want to expose too much that they're like, 'Ah wait. Like why do they want to do it [opioids] though? Like I might want to try that.' But then we also want them to know your brain is more likely to become addicted to something before the age of 25...And so, more of the effects of them than the actual drugs themselves is what we try to sort of, um, educate them on.

Wayne talked about the difficulty finding a developmentally appropriate way to explain that opioid misuse can be fatal. His approach was brief and unemotional. He recounted,

> They're in middle school so I don't like talk about the really bad effects. I just talk about, it makes you anything from drowsy to you know labored breathing and uhm in serious cases you could you can die from it, you can overdose uhm so I do talk about that. But I try not to get too—they're kids—so I try not to get too vivid about what could happen.

Christine used a similar approach, focusing on providing her students with factual information, saying, "I know with some of the kids it's also, it brings up different emotions and stuff that necessarily don't, they don't want to think about."

Finally, some teachers, expressed a lack of confidence in their ability to effectively support students. Latoya said she did not feel equipped to deal with student issues surrounding opioid misuse. "I just feel like they're—they're quicker to open up and talk to the counselor than they are to me." This lack of confidence in their ability to respond to students seemed related to a lack of professional development. Sean talked about a lack of training, suggesting, "I also don't

think teachers feel trained enough on it. So I think we say 'say no to drugs' but we don't really delve into what that means and what those things look like and things like that." Ultimately, teachers described several reasons for avoiding communicating with their students about opioid misuse, and several strategies for meeting their curricular obligations. Notably, teachers who did not describe avoiding communication with students about opioid misuse had previous experience interacting with students surrounding opioid misuse in the community. In fact, many of these teachers acknowledged that they were drawing from actual interactions with students or were describing a composite of previous responses when describing their response to the help-seeking scenario. This points to the utility of communication training and practice.

Theme 3: Topic Integration

Many teachers described intentionally weaving content about addiction, opioids, or the opioid epidemic into their course content in an effort to embed opportunities for interaction. Teachers varied in their approaches for bridging classroom content and the opioid epidemic. Diane, an English teacher, described introducing casual interactions about opioid misuse in the community. She said these informal interactions often lead to more intentional serious conversations.

> I think kids are way savvier than sometimes people will give them credit for. And I often hear them talk about things in ways that make me go, 'Okay, you do have a clue about the real world' … and of course we gage my interactions with them as to the class, the maturity, you know—is there something coming out that I need to go 'Whoa, we need to talk about that later' you know? You just kind of see how it comes out.

Essentially, Diane and a handful of other experienced teachers described having developed their own systems for leveraging her interactions with her students —moving from informal interactions to strategic conversations as needed. Diane and others described previous interactions with students surrounding substance abuse in the community as the impetus for these

intentional interactions with students. Essentially, these teachers had practice discussing difficult topics like opioid use.

Many teachers had developed other strategies for incorporating informal conversations about substance abuse into their tight schedules. Denise, a science teacher, described how she integrates topics like drug use into her instructional practice each week using videos.

> Um, every, um, every Friday I do a um, thing called Feel Good Friday, and it's kind of misleading, it's kind of a misnomer because it's not always a feel good Friday, but um I'll show um a video and it's usually 2-3 minutes, whatever the case is. And it's about, it's kind of a character-building kind of video or a thought-provoking kind of video. Um And so, you know, one of them is about, one of the ones I start with is an army admiral talking about um, if you want to be a success, start with making your bed in the morning. You know, and he talks about how the little things build into big things. Um, and so those videos are kind of a way for me to talk with my students um about, not necessarily science topics, um but to talk to them about character and about life and um, so there's, there have been several videos that talk about um, when you get frustrated and you feel like there's not a way out, and that allows me to kind of um kind of gives me a segue into talking about [coughs] drugs and how even though that's gonna give them, may give them a temporary out, it doesn't, it's not gonna make the situation go away. It's not a long-term solution. Um, and so that's usually how I can bring it up in my classroom.

Megan, a physical education/health teacher, literally brings the community into her classroom by introducing her students to law enforcement officers:

> *When we have the narcotics unit come in and speak to our kids, I have a lot of kids that have a rough day with that because those narcotics officers have been in their home and in their lives and have arrested people that are close to them. And so, for some of them it's not a good day. They don't want to be a part of that, um, but I think it's important for them to hear their side and what they have to say and what they've seen and what they've experienced and that they're there to try to help instead of looking at them as the police that are going to take someone away and arrest someone being the police that are going to be there to help them to get out of a bad situation or to save their life if they overdose so I think it's good for them to hear that side of it as well.*

Megan said she follows up law enforcement visits with conversations aimed at teaching students to make "good" choices.

> *I think when we get past me not judging them based upon their answers then they are more open and they tell me more which is good because then I can give them accurate information so that they can make good choices in where they need to go so that's kind of*

> *how we conduct the classroom as far as our talk on it [substance abuse].*—Megan, Central Bedford Forrest

Lisa, an English teacher relies on personal stories to respond to students. For example, Lisa described telling students the following story about a man in treatment to a group of students who asked her what happens if someone gets addicted to marijuana.

> *He said "screw that, I don't care" he continued, because he started off on an easy path for drug use that lead him to go down more paths, and because he was being exposed to more paths he was being exposed to more dangerous situations, which was then leading him to be set up in court, which then had destroyed his opportunities for work, for relationships with certain kinds of people in his family or others around him. I said "essentially he screwed himself over" and I said, "that is something he's going to think about for the rest of his life and while he is sitting in jail doing time for all of these things he did he is gonna look back and do "oh somebody did want me to get out, I didn't listen and here's what happened."*

She described why she uses stories to integrate content about substance abuse into her classes:

> *I've seen with kids, especially at the teen age, if you make it personal and you can relate it back to something that's going to personally affect them or personally has affected you that's going to be the easiest way to get them to remember it. So building off that like emotional response for them is the best way for them to remember information.*

Echoing Lisa, Christine, a physical education teacher attempts to evoke fear using bluntness. Christine's strategy is to provide her students with factual information,

> *I think the kids need something that will actually, in a sense, slap them on the side of the head and give them a reality check. I think they need...they don't understand the severity. They think it's fun and games.*

Regardless of which strategy teachers employed to integrate discussion about opioid misuse into their discipline, teachers regarded their strategies as protective whether in the form of interaction, information, or emotional reflection. Importantly, these strategies were not learned from training or professional development. That is, teachers drew from their own intuition (like Diane and Denise) or that of their colleagues, (like Megan) or previous teachers (like Lisa and Christine) in integrating the opioid epidemic into their classroom. In the discussion, I explore

how these themes relate to the under-resourced context and discuss potential intervention strategies.

Discussion

The aim of this study was to understand how teachers communicate with their students about the opioid epidemic. Thematic analysis of semi-structured interviews was used to examine three main themes that shaped teacher communication: misunderstandings and assumptions, topic avoidance, and topic integration. These themes align with the individual and interpersonal levels of the Socio Ecological Model and are illustrative of opportunities for intervention and support. These results represent teacher responses to students within a community impacted by the opioid epidemic.

Two broad findings emerged from this study. First, many of the teachers who participated in this study were not comfortable communicating with their students about the opioid epidemic. These teachers expressed a need for training and support in addressing the opioid epidemic in the classroom. Second, the teachers who did talk about the opioid epidemic deployed a range of strategies intended to support their students in a variety of ways. These strategies were not developed consciously or via any interventions, indicating that training and support could potentially benefit all teachers.

Teacher Attitudes and Beliefs

An individual barrier to responding to students impacted by opioid misuse was teachers' misunderstanding of their students' risk for opioid exposure. Teachers believed that their students were sheltered from opioid misuse, or linked poverty or race with opioid risk. Notably, both of these assumptions are cognitive shortcuts which are ubiquitous responses to scarcity in that they save energy (Macrae et al., 1994). While the use of language referencing race and class

is not uncommon, scholars point out that it allows teachers to reference race or class while adhering to the cultural norms of colorblindness and meritocracy (Akom, 2008). This response emphasizes the importance of teachers' knowledge of community culture and understanding of their students as part of that culture. This study, supports previous work on non-content teacher knowledge, which has established ties between teacher cultural responsiveness and general pedagogical knowledge with student academic outcomes and school climate (König & Pflanzl, 2016; Murrell Jr, 2017). Importantly in this study teachers were knowledgeable about what was going on in Bedford County. In fact, most teachers cited recent data on the impact of the opioid epidemic in their community. The barrier in this case was the application of this knowledge. Teachers were either not aware of student exposure to opioid misuse or they believed their students of color or students living in poverty were uniquely at risk for opioid exposure.

Teacher beliefs influence their interactions with their students (Buehl & Beck, 2015). It is important that teachers are attuned to their students and that they avoid communicating stigmatized messages, even inadvertently. Microaggressions in the classroom are negatively associated with belongingness and motivation (Harrison & Tanner, 2018). Often people who have stigmatized identities avoid disclosing their identities, which decreases the likelihood that they will seek or receive the support they desire (Agne et al., 2000; High & Crowley, 2018). Supporting teachers in communicating about opioid misuse without using raced or classed language is critical in order to encourage help-seeking (Gutierrez et al., 2020). Teacher interventions aimed at unpacking existing assumptions and understanding how assumptions are communicated to students and how they impact students would be beneficial.

Teacher communication training and practice

At the interpersonal level of the Social Ecological Model, teachers described topic integration and topic avoidance Topic integration and topic avoidance are often presented as opposites, with topic integration, or weaving the opioid epidemic into classroom content being presented as positive. Indeed, health communication within interpersonal relationships, including communication between students and teachers, influences health behavior (Cline, 2003; Giles et al., 2010; Stephens et al., 2008). In contrast, avoiding a salient topic, which communication scholars have termed topic avoidance, has been linked to negative mental health outcomes (Afifi et al., 2014; Schrodt et al., 2007). However, how both of these responses function is dependent upon other contextual factors including teacher beliefs and attitudes surrounding opioid misuse. That is, both topic integration and topic avoidance can be supportive or problematic.

Although there are differences in communication practices between health providers and teachers when responding to adolescents, research demonstrates that adolescents prefer that health providers bring up sensitive health topics (Brown & Wissow, 2009). Relying on young adolescents to identify opioid misuse as a problem which is impacting them and to disclose requires both knowledge and trust on the part of youth. In weaving the opioid epidemic into their disciplines (topic integration), teachers were bringing up relevant knowledge surrounding opioid misuse, and in doing so, signaling to their students an openness to further interactions on that topic. Importantly, teachers' beliefs and attitudes about opioid misuse are likely also communicated in these interactions. All teachers need support in talking about the opioid epidemic, particularly those who inadvertently stigmatize opioid misuse or link opioid misuse with poverty, race, or ethnicity,

Topic avoidance occurs when an individual intentionally decides not to disclose information on a topic to another person or when an individual tries to prevent another person talk about something or disclosing information on a particular topic (Afifi & Guerrero, 2000; Dailey & Palomares, 2004). Often taboo topics are avoided (Baxter & Wilmot, 1985). Research on topic avoidance consistently indicates that individuals avoid topics for a variety of reasons including relational maintenance, self-protection, and because a topic is uninteresting (Dailey & Palomares, 2004).

Teachers employed topic avoidance for three distinct reasons each of which is a response to teaching in the context of scarcity. Each of these reasons is consistent with research on topic avoidance where taboo topics are viewed as destructive, inefficient, futile and risky and sometimes topic avoidance is deployed as a way of setting personal boundaries (Baxter & Wilmot, 1985; Golish & Caughlin, 2002). First, teachers lacked confidence talking about opioid misuse. Using topic avoidance in this case, stems from a lack of resources in terms of training and practice. Additional practice and support could shift these teachers from topic avoiders to topic integrators. Teachers also avoided talking with their students about the opioid epidemic because they believed it fell outside the scope of their job. When time and energy are scarce, teachers may establish personal boundaries surrounding job responsibilities. Topic avoidance may be an appropriate response for these teachers, however providing trauma informed teacher training (discussed in the next section) would help teachers view classroom behavior as a potential red flag for students who may need additional support. Finally, teachers used topic avoidance because they perceived discussions of opioid misuse in the classroom as professionally dangerous. Again, this could indicate a context which lacks professional safety and support.

Topic avoidance impedes many coping strategies including venting, and using social and instrumental support, all of which are communicative (Carver et al., 1989; Donovan-Kicken & Caughlin, 2011). Avoiding talking with their students about the opioid epidemic also prevents teachers from providing emotional and instrumental support to their students. Given the protective role that teachers can play in the lives of their students, understanding how to ameliorate teachers fears about broaching sensitive health topics is essential. In addition, providing teachers with the opportunity to reflect on and practice a variety of responses to the opioid epidemic would give students options and allow teachers to determine what kind of response feels most authentic and appropriate. Teachers requested interventions intended to support teachers in identifying options in their responses to students when confronted with community trauma. In addition, teachers would benefit from time to practice communication strategies in responding to sensitive health topics.

Time to foster student teacher relationships

At the community level of the SEM, teachers described a lack of informal one-on-one time with their students. Teachers' interpersonal skills are viewed as more valuable by their students than their academic skills (Raufelder et al., 2016), and the protective role teachers can play in the lives of their students is clear. However, teachers and students need time to foster and maintain their relationships. Teacher interaction and support are linked to student subjective wellbeing and mental health (Suldo et al., 2009; Wit et al., 2011). A recent content analysis of the informal interactions between a teachers and students underscore the importance of these interactions (Harrison et al., 2019). Instructor talk, or non-content language used by instructors in classrooms is most often used to establish student-teacher relationships and classroom climate (Seidel et al., 2015). Intentionally scheduling time for routine, informal interactions between

teachers and their students at the institutional level is a critical component of any effort to support student health in that it promotes teacher-student interaction. This represents an important intervention opportunity.

Implications and Future Directions

For youth, the sequalae of negative outcomes tied to the opioid epidemic varies greatly (Brundage et al., 2020). Youth impacted opioid misuse may face neglect, or the loss of a caregiver due to incarceration or an opioid overdose (Crowley et al., 2019). Further, youth who misuse opioids may need medical help treating an opioid use disorder (Robinson & Wilson, 2020). Teachers must be familiar with both the direct effects (individual misuse) and indirect effects (trauma associated with misuse by caregivers) of opioid misuse. Being able to respond effectively to individual opioid misuse would require familiarity with the signs, symptoms, and seriousness of opioid intoxication and withdrawal (Welsh et al., 2018). Responding effectively to a student who has lost a loved one in an opioid-related fatality may require a teacher to have knowledge of how trauma impacts learning (Jennings, 2019). Preparing teachers to respond to a variety of outcomes differentially might be inefficient given the ever-changing needs of youth in crisis. However, training teachers to be trauma-informed would bypass the need to be knowledgeable about opioid misuse specifically. Using a trauma informed approach, the teacher would need to be knowledgeable about which student behaviors indicate distress and how to respond to those behaviors (Cole et al., 2013). While current literature characterizes the contours of the problem, there is a gap in the literature concerned with how teachers are applying the community knowledge they possess. Further research must examine the deficits in teacher community knowledge and the application of teacher knowledge because it may prevent teachers from responding to students impacted by the opioid epidemic.

This study was consistent with other studies in that educators want and need professional development and responding to students experiencing trauma (Berger et al., 2020). Teachers may need social/emotional support for their own exposure to opioid misuse. Several teachers shared stories about personal losses that were related to opioid misuse. If these teachers' personal exposure to opioid misuse constitutes vicarious trauma, it is probable that many teachers involved in this study are at risk for burnout (Koenig et al., 2018). There are models for supporting professionals who experience vicarious trauma or compassion fatigue (Lewis & King, 2019). Research on teaching in high opioid misuse areas and burnout would help identify what types of support would be appropriate.

Limitations

Results of this study should be interpreted in with caution due several limitations. First, the interviewers were all white cisgender women, factors which may have impacted what participants, particularly non-white participants, felt comfortable disclosing. Another limitation was that some teachers responded hypothetically to questions probing their communication with students about opioid misuse, while others used past experience to answer. Teachers who had previous experiences to draw from were more likely to discuss the opioid epidemic with their students. This supports the teachers' call for more training and practice in responding to students impacted by the opioid epidemic. Finally, because this study focused on teachers, these results do not speak to students' experiences of teacher responses to the opioid epidemic. Future studies could address students experiences of student-teacher interaction surrounding opioid misuse.

Another limitation is the conflation of substance abuse and opioid misuse. Because many teachers spoke about substance abuse broadly, it is difficult to access their knowledge of the increased risk of death associated with opioid misuse. It is also difficult to tease out stigma

specific to opioid misuse versus stigma surrounding drug use or addiction in general. Although they would have been helpful, follow up interviews were not conducted due to time and organizational constraints.

Finally, many teachers revealed personal experiences with people who misuse opioids. However, the teachers described different communication practices. Some teachers seemed to approach their experiences with exceptionalism, other described the experiences as an opportunity to signal to their students an understanding or empathy. Future investigations of the impact of personal experiences with addiction for teachers might help us understand how teachers process these experiences and how better to train them to address community concerns in the classroom. More experienced teachers and teachers who lived in the community where they taught were more likely know about the opioid epidemic and to assume opioid misuse was impacting their students. Future studies examining the role of community knowledge in efficacious teaching could help tailor teacher training and orientation. Understanding whether teachers embedded in the communities where they serve impacts academic or social emotional outcomes could also shape hiring practices.

Conclusion

Teacher communication in response to trauma is a well-documented protective factor for students. The current study focuses on how 22 teachers in a rural community impacted by the opioid epidemic communicate with their students in response to the opioid epidemic. In addition, the study examines how teachers' communication was shaped by working in an under-resourced community. The findings reveal three teacher response patterns (teacher misunderstanding of their students' risk for exposure to opioid misuse, teachers' avoidance of and lack of confidence surrounding talking with their students about opioid misuse, teachers' integration of discussions

of opioid misuse into their disciplines) and suggest potential supports based on each communication pattern.

Table 4

Participant Characteristics by School

	Central	North	South	Total
Gender				
Female	5	4	4	13
Male	3	3	3	9
Race/Ethnicity				
White				18
Not White				4
Subject				
Health/Science	4	4	4	12
Other	4	3	3	10
Reside				
In County				15
Other				7
Teaching Experience				
0-3 years	0	2	1	3
3-6 years	2	4	1	7
6+	6	1	5	12
Average years at current school	5.6	5.2	6.7	

CHAPTER 4

Integrated Discussion

The United States experienced the highest number of overdose deaths ever recorded in the 12-month period ending in May 2020 (CDC, 2020). According to the CDC, this recent acceleration in overdose deaths was driven by synthetic opioids. An estimated 2.2 million youth were placed in crisis by the opioid epidemic in 2017 and that number is expected to grow (Brundage et al., 2020). Youth in rural Appalachian communities experience a heightened risk of developing an opioid use disorder for a variety of reasons including access to health care, risky attitudes about substance misuse and stigma (Havens et al., 2011; Monnat & Rigg, 2016; Moody et al., 2017). It is essential that youth impacted by opioid addiction are able to seek help. Although opioid addiction is now regarded as treatable, it is highly stigmatized. Unfortunately, stigma can keep youth from seeking help when they encounter issues with opioid misuse. Understanding the barriers to help-seeking is crucial to preventing opioid misuse in youth and to providing services to youth impacted by the opioid epidemic.

Review of Studies

The purpose of the current work was to understand students' and teachers' communication about opioid misuse. The first study, a cross-sectional investigation of 340 middle school students, described the role of student-held stigma toward opioid misuse in their willingness to seek help from a teacher. Previous work surrounding opioid stigma is limited and does not focus on middle school aged youth. In fact, studies that examine stigma in adolescent populations focus on mental health issues (Eisenberg et al., 2009; Schnyder et al., 2017), addiction (Dschaak & Juntunen, 2018), and academic achievement (Won et al., 2019).

I found that stigmatized attitudes toward opioid misuse were not associated with seeking help. This finding was unexpected because stigma is a known barrier to seeking help (Corrigan & Nieweglowski, 2018). In fact, many public health campaigns successfully use social disapproval (or stigma) to motivate positive or healthy behaviors, including those that target tobacco, junk food, and opioids (Burris, 2008; Moore et al., 2020). Thus, this unexpected finding may indicate that youth have not been exposed to public health information about opioid misuse, as messages aimed at preventing opioid misuse rely on social disapproval or stigma. In contrast, because of the high help-seeking intentions in our sample, youth may have been exposed to messages aimed increasing help-seeking by using a stigma-reduction approach (Bagley et al., 2017; Corrigan et al., 2012). The critical takeaway from this study was that it is unclear what, if any, barriers to help-seeking for opioid misuse exist for students.

The second study explored teachers' communication practices with their students regarding community opioid misuse using semi-structured interviews with 22 middle school teachers. The purpose of this qualitative study was to describe educators' communication with their students related to the opioid epidemic. Responses were identified through thematic analysis and included teacher misunderstanding of their students' risk for exposure to opioid misuse, teachers' avoidance of and lack of confidence surrounding talking with their students about opioid misuse, and teachers' integration of discussions of opioid misuse into their disciplines. Together, these themes illustrate difference responses patterns to opioid misuse within the community. In order to communicate with students who are impacted by the opioid epidemic, teachers have to know that community opioid misuse potentially impacts their students. In addition, teachers have to be comfortable talking with their students about opioid misuse without reinforcing stigma.

Implications

The research presented in this dissertation has implications for future research on the role of schools in responding to the opioid epidemic, the development of stigmatized attitudes in youth, and the role of community knowledge in teaching. In addition to having implications for teachers and administrators, these findings hold important implications for officials who shape and design public health messages aimed at young adolescents, including health curriculum and drug prevention interventions, and officials who train and provide professional development to teachers. Taken together, these studies illustrate several opportunities to strengthen help-seeking communication between teachers and students surrounding opioid misuse. These opportunities include increasing knowledge, improving teacher communication, and investigating the role of stigma.

Increasing knowledge

A critical first step towards seeking or offering help, is to have prior knowledge that there is a problem (Abrahams et al., 1992; Bourke & Maunsell, 2016; Dong et al., 2020). Study 2 calls attention to the lack of teacher knowledge surrounding opioid misuse and the importance of teacher knowledge of local community health challenges. Nearly a third of the teachers that participated in Study 2 were unaware that the opioid epidemic was impacting their students. Notably, both studies were part of a larger prescription opioid misuse prevention program which was implemented at the teachers' schools. The intervention, which was aimed at students, improved opioid misuse knowledge among the students but did not improve intentions to misuse opioids (Evans et al., 2020). The classroom-based intervention may have exposed some teachers to knowledge about opioid misuse. Opioid misuse in the community was widely covered by local news media providing an additional avenue for exposure to knowledge about opioids for local

teachers. Though these represent potential sources of knowledge about opioid misuse in their community, results from Study 2 suggest that teachers remain largely unaware of how opioid misuse in the community impacts their students.

Broadly, studies aimed at accessing the impact of teacher knowledge tend to focus on content knowledge, rather than community knowledge (Shulman & Sherin, 2004). Outcomes of interest in these studies tend to relate to student learning rather than help-seeking (Sadler et al., 2013). This dissertation supports existent calls for community engagement component to teacher education and extends these calls to include professional development for teachers on community health issues (Haddix, 2015; Harfitt, 2018; Zeichner et al., 2015). Future research should consider the impact of teacher community knowledge on student learning *and* help-seeking behaviors.

Many experts tout a trauma-informed approach to dealing with the opioid crisis in the classroom (Lawson et al., 2019; Lorson et al., 2020). Such an approach views student behavior through the lens of trauma and focuses on creating safety in the classroom by prioritizing relationships (Minahan, 2019). If schools act as a safety net by identifying youth who are being impacted by the opioid epidemic, then teachers are first responders, referring students who exhibit concerning behavior to social workers and school counselors who then pair students with community resources (Baginsky & Macpherson, 2005). However, that system breaks down if teachers do not know that there is an epidemic, do not know what to look for, or do not believe that their students are at risk. Further, investigations of associations between trauma-informed approaches to teaching and help-seeking would be beneficial.

Improving communication

Help-seeking is a communication process (Cornally & McCarthy, 2011). These studies examined help-seeking from the perspective of the students (as help-seekers) and the teachers (as potential helpers). Efforts to improve communication should focus on identifying barriers to and facilitators of help-seeking faced by both students and teachers. Taken together these studies illustrate a willingness to engage in help-seeking or helping communication, while simultaneously illustrating silence surrounding the opioid epidemic in a community that was particularly hard hit by opioid misuse. Silence is a form of communication, however what it communicates in educational settings impacted by the opioid epidemic remains unclear (Barnes, 2015).

Overall, results of Study 1 illustrate students' willingness to seek help from teachers surrounding opioid misuse. However, Study 1 underscores the need for more descriptive studies to identify student barriers to student-teacher communication surrounding opioids. That students were more willing to seek help from a teacher on behalf of a friend than they were on behalf of themselves or a family member may indicate a reluctance to disclose personal or familial opioid misuse. Although Study 2 was a separate study, interviews were conducted with teachers from the same institutions in Study 1, and teachers indicated that actual help-seeking from students surrounding opioid misuse was extremely rare. Taken together, both studies indicate that a willingness to seek help from a teacher is not the same as actual help-seeking. Future work should explore what factors (e.g. school environment, student-teacher ratio) may support teacher-student communication surrounding opioid misuse.

Findings from Study 2 indicated that barriers to communication included teachers feeling uncomfortable or untrained. Time was also identified as a barrier. Teachers noted a lack of

unstructured “downtime” with their students and assumed that help-seeking conversations would happen with coaches or bus drivers. Other barriers included knowledge (discussed in the previous section) and stigma (discussed in the next section). Together these studies suggest several avenues for future research. Studies investigating the relationship between teacher communication practices and student help-seeking would help determine how best to target teacher communication to leverage the protective role teachers can play in the lives of their students. Additionally, investigating potential correlates of teacher-student communication including content learning and health outcomes would add to the robust evidence that attending to a student’s social emotional health is associated with positive academic outcomes (Durlak et al., 2011). Understanding if unstructured time plays a role in help-seeking would also be beneficial in designing schedules that facilitate teacher-student communication.

Investigating the role of Stigma

Stigma is a known barrier to help-seeking communication (Aguirre Velasco et al., 2020). Both studies in this dissertation underscore the presence of stigma in this community, but it is difficult to draw conclusions about the role stigma plays in the relationships between teachers and students. For students, there was no association between help-seeking and personal stigma, a known barrier to help-seeking. This may be illustrative of the mixed messages students receive surrounding opioid misuse, or a lack of knowledge about the opioid epidemic. Future studies should clarify the impact of opioid prevention messages on help-seeking and define developmentally appropriate messaging for young adolescents, who may not hold stigmatized attitudes.

Teachers inaccurately identified poor students, students from other schools, and students of color as being at risk for exposure to opioid misuse. Together these studies point to several

opportunities to better understand stigma. Longitudinal work focusing on teacher-student dyads would provide more details about how stigma is communicated and ameliorated in the classroom. Future work on the factors that impact stigma among middle school aged youth would inform future trainings and interventions. Additionally, understanding if stigma surrounding opioid misuse operates differently in young adolescents than other stigmatized health behaviors (e.g., substance abuse, vaping, etc.) is essential to creating public health campaigns that reduce unhealthy behaviors while not reducing help-seeking intentions. Finally, teacher training on communication tactics that reduce stigma would be beneficial.

Limitations

These studies should be interpreted with caution based on a number of limitations. First, data was collected prior to the COVID-19 pandemic. The pandemic has underscored the important, protective role teachers play in the lives of their students (Cheng et al., 2020). But it may result in far reaching changes to teacher-student communication (Alawamleh et al., 2020). Further work should examine the current questions in an online context. Focusing on multiple communication platforms (online via text, online face to face and face to face) would assist in developing and evaluating teacher health communication recommendations.

Secondly, these studies were among the first to examine the role of stigma in teacher-student communication surrounding opioid misuse in young adolescents. Empirical studies that examine the role of stigma in help-seeking among young adolescents in context of substance abuse consistently find that stigma acts as a barrier to help-seeking. However, studies that focus on young adolescents tend to focus on marijuana and alcohol use and rarely query youth about communicating with teachers, focusing instead on peers and parents. Similarly, few studies investigate how middle school teachers communicate in response to the opioid epidemic,

focusing instead on teacher responses to bullying. Additional research on communication between teachers and their young adolescent students surrounding the opioid epidemic would help establish whether opioid stigma functions differently in teacher student-communication compared to substance abuse stigma. In addition, additional research would help identify the unique communication needs of middle school students when talking with their teachers about the opioid epidemic.

Finally, both studies were cross-sectional in their design. Understanding the complex relationships between health communication, knowledge, and help-seeking requires longitudinal designs, as these processes may have both proximal and distal outcomes. Similarly, because communication involves a series of interactions which are impacted by previous interactions, it is important to examine teacher-student communication over time. In order to truly capture communication practices dyad studies are also needed. Though study 1 surveyed youth and study 2 interviewed teachers, both studies accessed communication by posing hypothetical questions to teachers and students separately.

Conclusion

Help-seeking is crucial to preventing opioid misuse in youth and to providing services to youth impacted by the opioid epidemic. The purpose of the current work was to understand potential barriers that keep students and teachers from communicating about and responding to opioid misuse. Findings broadly indicate that teacher student communication surrounding opioid misuse is uncommon. In order to increase teacher-student communication surrounding sensitive health topics, including opioid misuse, teachers need to enter the classroom with knowledge of the community in which they serve. In addition, teacher student communication needs to be valued (this requires time, training, and additional research).

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APPENDICES

Appendix A

Interview Guide

- **Thank you** for talking with me today.
- **The goal of this interview** is to learn more about your opinions and beliefs regarding opioid prevention efforts in Lee County. Specifically, I'm interested in any experiences you may have had communicating with your students about opioid misuse.
- I'm not going to ask you any questions about your personal use of opioids
- We plan to share the aggregate results of this study with Lee County school administrators. We will not share any personally identifiable information. The results may also be published.
- To protect your confidentiality and that of your colleagues and students, I'm not going to be using your name during this interview and I ask you not to use names when referring to others. If you refer to a student or colleague by name, we will replace it with a pseudonym. We will also omit identifiable details like the name of the county and the school.
- There is one exception to confidentiality we need to make you aware of; it is our ethical responsibility to report situations of child abuse and child neglect to appropriate authorities. We are not seeking this type of information in our study nor will you be asked questions about these issues. In the event that you disclose information that rises to the level of mandatory reporting, I will ask you if you have previously reported this information. If you have not, I will have to report this information to the appropriate authorities to ensure the child is safe.
- There are no right or wrong answers. I am interested in what you think and what your experiences have been.
- I'm going to record our conversation so I can give you my full attention and also remember what you've said.
- We can skip any questions that you do not want to answer.
- We can stop the interview at anytime.
- Do you have any questions before we start?

I am starting the recorder.

START RECORDER: Today is **DATE**, **TIME**

INTRODUCTION (Rapport building)

1. Let's talk a little bit about your role at this school?
    1. How long have you been teaching here?
    2. What do you teach?
    3. Can you describe what it is like to teach here?
    4. Do you live in this county?

OPIOID MISUSE

2. Can you tell me what you know about opioids?

Response/Reframe: For the purposes of this conversation, when I ask you questions about opioids, Opioids are a class of drugs that are used to numb pain. These include illegal drugs like heroin, and also synthetic drugs such as fentanyl, as well as pain relievers available legally by prescription, such as OxyContin®, hydrocodone, Vicodin®, codeine, morphine, and many others. Now I want to talk about the misuse of opioids. By opioid misuse I mean the use of illegal opioids like heroin and the use of prescription opioids like oxycodone in a manner or dose other than prescribed by a doctor.

(optional example): So for example, if a your uncle has a prescription for OxyContin because of a shoulder injury and takes that medication as prescribed that is not opioid misuse. But if for instance his neighbor comes over, finds the medication and takes it, or if the uncle takes twice as much as he's supposed to, that's opioid misuse.

Do you have any questions about that?

3. Can you tell me about opioid misuse in this county?
   If no-ask about substance abuse in the rest of the protocol

4. Describe how opioid misuse affects your students?
   Probes:
   - How do you notice this?
     - talking to students
     - classroom behavior
     - grades
     - interaction with peers (overhearing conversations)
   - You've described how this impacts individual students directly, what about how opioid misuse affects other students indirectly?

COMMUNICATION

5. Can you tell me about a time when you have talked with students about the opioid epidemic?

   If no:

   Why not?

   If yes:
   probe context: —what prompted discussion?

6. What about talking with other teachers or staff at this school? Do opioids come up when you are talking with your colleagues?
   If yes: probe context and content

7. Can you tell me about a time that students have come to you for help or advice about opioid related issues?

   If no: Who do you think students approach if they need help or have a concern about opioid misuse?

   If yes: Who else do you think students approach if they need help or have a concern about opioid misuse?

8. What about if students have a question or need clarification about opioid related issues, who do they talk to here?

9. Do you hear students talking to each other about opioid misuse?

   If no move on
   If yes: ask for examples. (eg. If they say I hear students joking about it in the halls—ask for an example of a joke)

10. If a student came to you with a concern about a friend or a family member misusing opioids—what would you do/ what would you say?

How do you know to do/say that? (does this come from training? Experience?)

OPIOID PREVENTION IN SCHOOLS

11. Are you aware of opioid prevention efforts happening at your school?

a. **IF YES:** What prevention efforts are currently happening? How useful do you think they've been? (Probe: Student response? Parent response? Other teachers?)

IF NO: Briefly describe in-class program that was delivered to all 7th graders in 2018/2019 school year.

This is (Not) About Drugs

- Prescription opioid misuses prevention program for youth
- 45 minutes; delivered in one class period
- The overall goal of the program is to raise awareness of prescription opioid misuse prevalence and risk among adolescents
- The program focuses on how misusing prescription opioids can lead to addiction, heroin use and overdose

Do you think an in-class prevention program is useful?

12. Can you describe the kinds of opioid prevention efforts would you like to see at your school? How can the school district do a better job at preventing opioid misuse?

CLOSING QUESTIONS

13. Is there anything else you would like to share about your experience teaching here or the opioid misuse/crisis happening in this county?

THANK YOU for your participation. I'm going to stop recording now.

Appendix B

Consent Form

North Carolina State University
INFORMED CONSENT FORM for RESEARCH

Title of Study/Repository: Understanding Attitudes towards Opioid Misuse Study (IRB #16735)
Principal Investigator: Abby Nance, alnance@ncsu.edu, and 828-919-1759

Faculty Point of Contact: Dr. Laura Widman, lmwidman@ncsu.edu, 919-513-2546

What are some general things you should know about research studies?
You are being asked to take part in a research study. Your participation in this study is voluntary. You have the right to be a part of this study, to choose not to participate and to stop participating at any time without penalty. The purpose of this research study is to gain a better understanding of what teachers think about current efforts to prevent opioid misuse in Lee County. We will do this through an interview and a brief survey.

You are not guaranteed any personal benefits from being in this study. Research studies also may pose risks to those who participate. You may want to participate in this research because you may want to contribute to the improvement of opioid prevention efforts targeting youth in your community. You may not want to participate in this research because you may be uncomfortable sharing your beliefs about opioid prevention efforts.

In this consent form you will find specific details about the research in which you are being asked to participate. If you do not understand something in this form it is your right to ask the researcher for clarification or more information. A copy of this consent form will be provided to you. If at any time you have questions about your participation, do not hesitate to contact the researcher(s) named above or the NC State IRB office (contact information is noted below).

What is the purpose of this study?
The purpose of this study is to understand existent attitudes and communication practices of teachers towards youth surrounding opioid use in Lee County and to gather more in-depth information on the feasibility, acceptability and appropriateness of existent intervention efforts targeting rural seventh grade youth in Lee County North Carolina.

Am I eligible to be a participant in this study?
There will be approximately 30 participants in this study. In order to be a participant in this study you must be a current middle school teacher working in a public middle school in Lee County North Carolina

What will happen if you take part in the study?
If you agree to participate in this study, you will be asked to do all of the following:
Participate in an interview with one of our research team members and fill out a brief demographic questionnaire.
The total amount of time that you will be participating in this study is 40 minutes.

Audio recording
If you want to participate in this research, you must agree to be audio recorded. If you do not agree to be audio recorded, you cannot participate in this research.

Risks and benefits
There are minimal risks associated with participation in this research. There are no direct benefits to your participation in the research. The indirect benefits are that this study will contribute to improvement of prevention efforts targeting youth in Lee County.

Right to withdraw your participation
You can stop participating in this study at any time for any reason. In order to stop your participation, please let the research assistant know. If you choose to withdraw your consent and stop participating you can expect the researcher to stop the recording immediately. You will then be compensated for your time.

Confidentiality
The information in the study records will be kept confidential to the full extent allowed by law. Data will be stored securely on an NC State managed computer. Unless you give explicit permission to the contrary, no reference will be made in oral or written reports which could link you to the study. You will NOT be asked to say your name during the interview, so that no one could match your identity to your answers. Any identifiable information collected as part of this research, will not be used or distributed for future research purposes without your consent. The researcher(s) may not be able to maintain as confidential, information about known or reasonably suspected incidents of abuse or neglect of a child. If the researcher is given such information, he or she may report it to the authorities.

Compensation
For participating in this study you will receive a $40 gift card.

If you withdraw from the study prior to its completion, you will still be compensated for your time.

What if you have questions about this study?
If you have questions at any time about the study itself or the procedures implemented in this study, you may contact the researcher, Abby Nance, alnance@ncsu.edu, 828-919-1759.

What if you have questions about your rights as a research participant?
If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the NC State IRB (institutional Review Board) Office via email at irb-director@ncsu.edu or via phone at 1.919.515.8754. An IRB office helps participants if they have any issues regarding research activities.

You can also find out more information about research, why you would or would not want to be a research participant, questions to ask as a research participant, and more information about your rights by going to this website: http://go.ncsu.edu/research-participant

Consent To Participate
"I have read and understand the above information. I have received a copy of this form. I agree to participate in this study with the understanding that I may choose not to participate or to stop participating at any time without penalty or loss of benefits to which I am otherwise entitled."

Participant's printed name _____

Participant's signature _____ **Date** _____

Investigator's signature _____ **Date** _____

Appendix C

Codebook

Umbrella code	Smaller code	Definition	Example
Role		How educators see their role in the school	
	Help Positive	Education is about more than content, it is about creating citizens, inspiring a better life	"My job is to inspire them."
	Help Negative	Education is about more than content, it is learning to avoid negative outcomes	"My job is to scare them."
	Connect	Fostering relationships with students (the implication is that learning doesn't happen in the absence of trusting relationships)	
	Just teaching	Education is about the acquisition of knowledge	"I am rigorous. I have to be or they won't learn the material."
	Advocacy	Teaching also involves advocacy within the community	
Attitudes toward students			
	Fondness	Protective, blanket acceptance of students	"They're my people"
	A few good	Acceptance of some students (the good kids)	"There are only a few bad apples, but they make it hard…"
	Oscillating	An awareness of students' needs and challenges coupled	"I know they need attention because they aren't getting it at

		with generalizing statements about students and frustration	home, but they are thick headed and they will act out to get attention even if it is negative."
	Unattuned	A lack of awareness that students exist outside of the domain of school or a lack of knowledge about developmentally appropriate behavior in middle grades students, or dehumanizing generalizations.	
Initiated conversations regarding opioids			
	Logos Content related to class Content not related to class	Knowledge based	
	Pathos Content related to class Content not related to class	Emotion based	
	Ethos Content related to class Content not related to class	Experience based	
Conversations students want			
	Logos	Knowledge based	
	Pathos	Emotion based	
	Ethos	Experience based	
Advice question		Participants' responses to "If a student came to you with concerns about…"	

	Major Level 1	Teacher condemns, challenges or ignores the student's feelings	I would refer them to guidance counselor
	Major Level 2	Speaker acknowledges the student's feelings but doesn't attempt to understand them or help the student cope with them.	
	Major Level 3	Teacher acknowledges the student's feelings and offers help, perspective or care.	
Advice/VPC		How do educators know to refer (and/or any additional behaviors).	
	Training/PD	Specific training	
	Experience	Reference to past experience…	"I've been doing this for a long time."
	Attunement with humanity	Reference to empathy or duty or identity	"That's what I would do for anyone."
Shapers of attitudes toward opioids			
	Experience	Witnessing opioid misuse in specific people, sometimes social media	
	Knowledge	Media or medical understanding of the impact of opioid misuse, no mention of specific people.	
Knowledge about opioids			
	Misinformation	Any incorrect info about opioids (e.g. conflating opioids with all illegal drugs	
Beliefs about opioid misuse			
	Pervasive	A belief that opioid misuse happens to "regular people"	"It could be anyone" "I knew his family well from church"

	Naïve	A belief that people who misuse opioids don't know better…	"I think it starts off as pain medication and you have some left over and so you offer it to your friend."
	Flawed	A belief that people who misuse opioids are lazy or bad	"These parents don't even bother to hide it from their children."
	Conflate	Opioid use is conflated with demographic variables	
Wish list		This code is primarily for Guidance counselors and may overlap with the conversations students want…	
	Logos	Programing based on information and facts	
	Pathos	Programing based on instilling fear or empathy	
	Ethos	Programing based on people who students admire (Sheriff's department, celebrities)	
Opioid impact in schools			
	Most	Belief that opioid misuse impacts most students directly or indirectly	
	Some	Focus on students who's parents may be misusing opioids	
	Few	Lack of awareness that opioids would impact students at all	
TINAD (This is not about drugs		Are educators aware of this is not about drugs intervention?	
	Aware	Aware of multiple prevention efforts including TINAD	

	Not Salient	Aware of prevention efforts not including TINAD	
	Not Aware	Not aware of prevention efforts	
Awareness of opioid misuse in Bedford county			
	Aware		
	Not aware		

Appendix D

Survey Excerpt

Background

1. How old are you?
   11 12 13 14 15 16

2. What is your race/ethnicity?
   1) White/Caucasian
   2) Black/African-American
   3) Hispanic/Latino/Latina
   4) Asian
   5) Another race/ethnicity

3. What is your gender?
   1) Boy
   2) Girl
   3) Transgender / other gender identity / prefer not to say

4. Are you receiving free or reduced-price breakfast or lunch at school this year?
   1) No 2) Yes

5. Have one of your parents or close family members who lives with you ever served in the United States Army, Navy, Marines, Air Force, or other military branch?
   1) No 2) Yes

MS YRBS

This survey asks about health-related behavior. Please answer honestly

10. Have you ever **taken prescription pain medicine** without a doctor's prescription? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
    a. No b. Yes

HELP

Think about the teachers in your school. How likely are you to get help from your teachers for each of these things?

1. I would get help from a teacher if I had a problem with pain pills or other opioids	Extremely unlikely	Unlikely	Likely	Extremely Likely
2. I would get help from a teacher if my friend had a problem with pain pills or other opioids	Strongly Disagree	Disagree	Neutral	Agree

3. I would get help from a teacher if someone in my family had a problem with pain pills or other opioids	Extremely unlikely	Unlikely	Likely	Extremely Likely

STIGMA

Tell us what YOU believe about people who are addicted to pain pills or other opioids.

I BELIEVE

A person who is addicted to pain pills/opioids cannot be trusted.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/opioids is dangerous.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/opioids is to blame for his or her problems.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/ opioids is lazy.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Now tell us what you think your TEACHERS believe about people who are addicted to pain pills or other opioids.

MY TEACHERS BELIEVE

A person who is addicted to pain pills/opioids cannot be trusted.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/opioids is dangerous.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/opioids is to blame for his or her problems.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
A person who is addicted to pain pills/ opioids is lazy.	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree