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Association Between Mental Health problems, Substance Use, and Social Support in Youth

Venida Gray
Walden University

Walden University

College of Health Sciences

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Venida Gray

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Review Committee
Dr. Janice Long, Committee Chairperson, Nursing Faculty
Dr. Kathleen Brewer, Committee Member, Nursing Faculty
Dr. Mary Catherine Garner, University Reviewer, Nursing Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2020

Abstract

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by

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MSN, Saint Joseph's College of Maine, 2016

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

Mental health problems are a major public health concern and may be associated with substance use among youth. Youth who receive inadequate social support are at risk of experiencing mental health problems and engaging in substance use. The purpose of this study, guided by the relational regulation theory of social support and the self-medication theory, was to determine whether there was an association between mental health problems, social support, and substance abuse among middle school (MS) and high school (HS) students and whether this association varies with age, using secondary data from the Maine Integrated Youth Health Survey This study addressed whether a relationship existed between mental health problems and substance use, between mental health problems and social support, and between substance use and social support in youth who are in MS and HS. Data were downloaded into SPSS for analysis after approvals from IRB were obtained. Logistic regression was used to determine the relationship between mental health variables, substance use, and social support. The results showed that there is a statistically significant association between mental health problems and substance use, mental health problems and social support, and substance use and social support. By evaluating the association between mental health problems, substance use, and social support in HS and MS students, focused interventions may be developed by providers and teachers. As providers and teachers gain insight into the influence of social support and substance use on mental health problems in MS and HS students, improvements in social support may provide for positive social change.

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Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Mental health problems are a major public health concern and may be associated with substance use (Conway et al., 2018) and inadequate social support over time (Holden, Dobson, Ware, Hockey, & Lee, 2015). Risk factors for mental health problems are widely considered to include genetic-environmental and cognitive factors (Cheng et al., 2014) and may be prevalent not only in the adult population but also among students before they reach their adult years. Mental health problems among young adults, in particular, may be associated with the level of social support available to the individual and may also be associated with substance use (Cheng et al., 2014). Substance use in this study referred to the use of legal or illegal substances without a prescription (Birkeland, Weimand, Ruud, Hoie, & Vederhus, 2017). Manwell et al. (2015) define mental health problems as the absence of mental disease, which includes the biological, psychological, and social factors that could affect a person's mental state and their function in society. Social support is a formal or informal relationship that an individual has with another person (Joni & Leonard, 2013). Social support that comes from family members, friends, and peers is considered informal social support, whereas when it comes from organization and healthcare professionals, it is considered formal social support (Joni & Leornard, 2013). Substance use and lack of social support can impact the young adult's sense of well-being and may result in mental health problems, which could create substantial societal burdens.

Existing literature suggests that mental health is associated with substance use (Amosu, Onifade, & Adamson, 2016; Conway et al., 2018) and social support (Milner,

Krnjacki, & LaMontagne, 2016) may vary across the overall population and affects all age groups including the young (Milner et al., 2016). Substance use is a national epidemic and a public health crisis that has increased in prevalence over time and places the population affected at risk for early mortality and morbidity (Hopkins, Landen, & Toe, 2018).

By examining the relationship between mental health problems, substance use, and social support, for young adults before they enter their adult years, specific and more focused interventions may be developed to promote mental health problems strategies that may improve outcomes among the young population. If the correlates of mental health are identified early in a young person's life, interventions may be implemented early, and thus help the youth with mental health problems to become more productive members of the society (Costello, 2016) and thereby promote positive social change. Chapter 1 of this dissertation includes the background of the study, problem statement, purpose of the study, research questions and hypotheses, conceptual framework, nature of the study, definitions, assumptions, scope and delimitations, limitations, the significance of the study, significance to social change and the summary.

Background of the Study

Studies have been conducted examining the association between mental health problems, substance use, and social support in the overall adult population (Amosu et al., 2016; Firestone et al., 2015; Jibeen, 2016; Ni, Harrington, Wilkins-Turner, 2017; Zhuang & Wong, 2017). These studies were conducted in schools, communities, healthcare facilities, and prisons and are the basis for interventions currently used for the population

suffering from mental illness such as identifying youths who are vulnerable to ensure prevention and put in place early interventions which increased health outcomes. Further interventions and treatments addressing mental health problems are needed (Conway et al., 2018) to ensure appropriate treatment and management of care.

Despite many studies on social support and substance use associated with mental health in the overall population, there is a lack of research on social support, substance use, and the relationship to mental illness or mental health problems among the young (Cheng et al., 2014; Jibeen, 2016; Lakey, Vander Molen, Fles, & Andrews, 2016; Lerissa et al., 2017; Levula, Wilson, & Harre, 2016; Mason, Zaharakis, & Benotsch, 2014).

Shahdadi,Mansouri, Nasiri, & Bandani, (2017) examined the association between mental health and social support among university students and found an increase in the number of university students experiencing mental health problems. Another study conducted by Ni et al. (2017) showed that certain age groups, especially youths, were at a higher risk for mental health problems following substance use such as drinking and illicit drug use. Mason et al. (2014) and Shahdadi et al. maintained that there is a relationship between social support, substance use, and mental health problems and that this should be examined to identify potential risk factors. The authors found that substance use among young adults has increased without a corresponding increase in social support; therefore, it is necessary to conduct research on substance use, social support, and mental health problems among youth. For this study, I examined the relationship between mental health problems and substance use and social support by

using secondary data obtained from middle school (MS) and high school (HS) students in the Maine Integrated Youth Health Survey (MIYHS; 2017).

Substance use is associated with social support. Individuals who have compromised social support such as family and friends may experience the consequence of substance use that may affect their well-being (Staton, Royse, & Leukfeld, 2007). Because social support is considered a buffer for an individual who experiences life crises (University of Minnesota, 2016), individuals who have adequate social support are less likely to begin substance use in times of distress. This is because positive social support is an enhancer of positive behavior that is needed to avert drug use.

Substance use is associated with mental health problems such as anxiety, depression, and suicide (Amosu et al., 2016; Lerrisa et al., 2017; Mason et al., 2014). Early use of the substance may lead to many health risks, which include mental health problems (Henchoz et al., 2016). The use of substances could impact some physiological pathways that manifest as untoward health consequences. For instance, the use of nicotine-containing substances could lead to addiction, and addiction is known to be associated with a mental health problem.

Problem Statement

Mental health problems are a major public health concern and may be associated with substance use (Conway et al., 2018). Individuals who have inadequate social support over time are at a greater risk of experiencing mental health problems compared to individuals who have a strong social support system (Holden et al., 2015). Substance use issues may intensify with inadequate social support (Milner et al., 2016). A limited

number of studies have examined the quality of social support among individuals with mental health problems (Amosu et al., 2016; Henchoz et al., 2016; Wang, Davis, Wootton, Mottershaw, & Haworth, 2017) and the co-occurrence between substance use and mental health problems (Conway et al., 2018).

Demographic differences such as race may play a role in substance use and mental health problems and may contribute to young adult access to health care services (Conway et al., 2018). While the occurrence of mental health problems, substance use, and social support are well studied in the adult population, little is known about the degree to which social support impacts mental health problems and substance use or abuse among teens in MS and HS age groups. Therefore, further research is needed to examine whether mental health problems are associated with social support and substance abuse in MS and HS aged children as well as whether the problem increases with age. This study examined retrospective data from a state-wide survey of youth in MS and HS for substance use and social support associated with mental health problems.

Purpose of the Study

Using secondary data from the MIYHS 2017, the purposes of my study were to determine (a) the relationship between mental health problems and substance use among youth who are MS or HS students, (b) the relationship between mental health problems and social support in youth who are MS or HS students, and (c) the relationship between substance use and social support in youth who are MS or HS students. Data from the MS and HS MIYHS 2017 were obtained from the Maine Center for Disease Control and Prevention (Maine CDC) for the study. The MIYHS collected the data using specific

surveys developed for their respective age groups (MIYHS, 2017). The results of this current secondary analysis may help practitioners to develop focused age-specific interventions for students at risk of mental health conditions secondary to drug use and to plan prevention programs for school-aged youths.

Research Questions and Hypotheses

This dissertation addressed the following research questions:

- Research Question 1: Using the MIYHS dataset, what is the relationship between mental health problems and substance use among youth who are MS or HS students?

  H_{01}: There is no relationship between mental health problems and substance use among youth who are MS or HS students.

  H_{a1}: There is a relationship between mental health problems and substance use among youth who are MS or HS students.

- Research Question 2: Using the MIYHS dataset, what is the relationship between mental health problems and social support in youth who are MS or HS students?

  H_{02}: There is no relationship between mental health problems and social support among youth who are MS or HS students.

  H_{a2}: There is a relationship between mental health problems and social support among MS or HS students.

- Research Question 3: What is the relationship between substance use and social support in youth who are MS or HS students?

H_{03}: There is no relationship between substance use and social support in youth who are MS or HS students.

H_{a3}: There is a relationship between substance use and social support in youth who are MS or HS students.

Theoretical Framework

Two theoretical frameworks were used in this study: Relation regulation theory (RRT) and the self-medication theory. The RRT provides a conceptual framework that helps in assessing the direct impact of social support on mental health outcomes (Lakey & Orechek, 2011). This theory maintains that supportive interaction has a positive impact on mental health outcomes (John & Louise, 2013). Most importantly, the RRT holds that individuals improve their mental health through the diversity of relationships (John & Louise, 2013). For instance, if youth defined communication, interaction, and relationship as a way of gaining social support, their behaviors and beliefs about social support is that supportive interaction has a positive impact on mental health (John & Louise, 2013).

The second theoretical framework is the self-medication theory. This theory helps to conceptualize the association between substance use and mental health problems (Lerissa et al., 2017) and to better understand substance use associated with mental health problems among youth (Khantzian, 2017). Self-medication theory was developed to address the concern about substance use by looking at the psychological underpinning of substance use (Khantzian, 2017). For instance, the self-medication theory identifies and addresses psychobiological factors that may cause substance use problems (Khantzian,

2017). This theory helps in identifying the reasons individuals use substances and may help address the associated between substance use and mental health problems (Khantzian, 2017). More detail on the self-medication and RRT frameworks is presented in Chapter 2.

Nature of the Study

This study was a cross-sectional, retrospective, correlational design using a quantitative approach. For this study, I used data from the 2017 Maine Integrated Youth MIYHS. In this study, the definitions used by the MIHYS were adopted and include

- *mental health problem,* measured as a sad feeling or suicidal ideation for the past 2 weeks (MIYHS, 2017); and
- *social support,* measured by love and support from family as well as communication with family and friends.

These are captured by the following two questions: (a) "I have a family that gives me love and support" and (b) "I have parents who are good at talking with me about things" (MIYHS, 2017). Substance use was measured using the following question: "During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?" (MIYHS, 2017). The independent variables include social support, substance use, and age group. The dependent variable is mental health problems. Other variables that were included in the study are county and number of individuals in the household and parent's social, economic status. The age group categorized MS or HS years of age. In my study, I used secondary data from the 2017 MIYHS to examine mental health problems associated with substance use and social support among youths. The data were

analyzed through logistic regression in which mental health problems is categorized as yes or no.

The study focused on the analysis of the MS and HS student data from the MIYHS. The sampling frame includes all public and quasi-public schools in the state of Maine that enrolled at least 10 students with kindergarten-third grade, fifth-sixth grade, seventh-eight grade (MS), and ninth through 12th grade (HS).

Definitions

Mental health problems: Manwell et al. (2015) defined mental health problems as the absence of mental disease, which includes the biological, psychological, and social factors that could affect a person's mental state and their function in society. The World Health Organization (WHO, 2014) defined mental health as an individual's ability to realize their potential to cope with normal life events and able to contribute to society. Dependent variable for assessing mental health problems was sad feeling or suicidal ideation for past two weeks (MIYHS, 2017). Participants who are reporting sad feelings or suicidal ideation were coded as 1 and 0 otherwise.

Social support: A formal or informal relationship that an individual has with another person (Joni & Leonard, 2013). Social support that comes from family members, friends, and peers is considered informal social support, whereas when it comes from organization and healthcare professionals, it is considered formal social support (Joni & Leornard, 2013). It is when an individual has friends, family, peers, and others to reach out to when in need to help the individual focus on a positive outlook (University of Minnesota, 2016). Social support can enhance the quality of an individual's life by

providing a buffer in times of crisis (University of Minnesota, 2016). The understanding of social support is that the individual feels accepted, receives care, and assistance during difficult times (Joni & Leonard, 2013). Free sharing of resources to help improve well-being and to allow interaction between individuals is also a form of social support (Joni & Leornard, 2013). Social support was measured by love and support from family as well as communication with family and friends. Independent variables were: (a) I have a family that gives me love and support, and (b) I have parents who are good at talking with me about things (MIYHS, 2017). Participants who reported having a family that gives them love and support or having parents who are good at talking with them about things were coded as 1 and 0 otherwise.

Substance use: The use of legal or illegal substances without a prescription (Birkeland et al., 2017). The independent variables of substance use were measured by this question: "During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?" (MIYHS, 2017). Response participants who reported using methamphetamines or ecstasy during their life was coded as 1 and 0 otherwise.

Secondary data: Data derived from primary data, which is used to answer research questions that the data were not developed to answer (Shamblen & Dwivedi, 2010).

Middle school (MS): MS refers to youth who are in Grades 7 and 8.

High school (HS): HS refers to youth who are in Grades 9-12.

Assumptions

Assumptions provide a structure about the belief of the methodology, understanding, and the reality of research (Russel, 1995). An assumption made in this study is that the participants provided an honest and truthful response to the MIYHS survey and that the data was collected correctly. The data source is reliable. An assumption underlying one of the hypotheses is that a lack of social support among individuals negatively impacts mental health, particularly suicidal ideation and depressive symptoms. Individuals who keep to themselves are more susceptible to suicidal ideation and depression than are individuals who interact with others within a positive social circle.

Scope and Delimitations

The research study used a quantitative, cross-sectional, correlational design with secondary data from the MIYHS to examine mental health problems associated with substance use and social support among youth. The MIYHS was conducted by the Maine Department of Education who collaborated with the Maine CDC and Substance Abuse and Mental Health Services in the Department of Health and Human Services (MIYHS, 2017). However, the survey is administered by the Pan Atlantic SMS Group administered to youths who are in school. The survey was conducted in 2015 to assess the risk behaviors of the Maine's youth (MIYHS, 2017).

Secondary data are collected by someone else, such as a government agency, schools, or recordkeeping organizations (Steve, 2017). The use of secondary data is less time consuming and more cost-effective (Steve, 2017). Secondary data can be easily

accessed through existing data sources (Steve, 2017). Even though the study uses the public and quasi-public schools in the state of Maine that enrolled at least 10 students, there are some limitations because students who are homeschooled would not be captured. The demographics of youth in Maine might not represent the demographics of all youth in the United States. Therefore, the result might not be generalizable to the United States population. This study focused on middle and high school students because this is the age at which they are transitioning to young adults. The association of mental health problems with substance use and social support were only considered at the public school of Maine. Some of the population of the public school of Maine was excluded due to grades. The excluded grades were grades below kindergarten-third grade. The theoretical framework for understanding the association between mental health, social support and substance use in excluded population is the social ecological model of human development. This model is conceived as a set of nested structure for understanding factors (social, emotional, etc.) that influence individuals' development at varying degree (Trach, Lee, & Hymel, 2018).

Limitations

This study was a descriptive, correlational study that assessed association between mental health and substance use and social support in youths. The identification of association does not mean there is causation between the variables (Seema, 2018). This is a limitation because there might be other possible explanations for any observed association. For example, an unknown genetic factor may be associated with mental health, and the same genetic factor may associate with substance use (Adibsereshki,

Abdollahzadeh, Hassanzadeh, & Tahan, 2018). Therefore, the observed association might be due to an unknown confounding factor. To address the limitation of confounding factors, for this study, I controlled for covariates that may be associated with the key variables of social support, substance abuse, and mental health problems. I controlled for number of adults over 21 known to participants who in the past year have used marijuana, crack, cocaine, or other drugs. The study results are from only Maine and may not be generalizable to young adults in the whole United States. Some schools in Maine were not able to participate in the survey due to grade reconfiguration or closing of the school (Maine CDC, 2017). Therefore, the modules for the Grades K-3 and 5-6 were replaced by an eligible school that may only closely match the schools that were ineligible for the study. Therefore, an adequate and representative sample may not be available for the study. Schools that failed to respond to the survey were also replaced by another school that was chosen randomly to replace those nonresponding schools.

The MIYHS has a limitation because the study only focused on youth in school (Maine CDC, 2017). Therefore, youths who are dropouts, absent, home-schoolers, homeless, and runaway youth were missed or no response (Maine CDC, 2017). Some schools had a small number of students who were enrolled in Maine's island or rural areas which led to non-response to survey due to exclusion (Maine CDC, 2017). The language barrier is a limitation because the questionnaire is anonymous and was not administered in multiple languages (Maine CDC, 2017). Therefore, individuals with limited English language may not respond to the survey (Maine CDC, 2017). Another limitation barrier is that teachers are not allowed to help students fill out the survey

stemming from confidentiality and to maintain consistency in the way the questions were developed (Maine CDC, 2017). Therefore, students who are experiencing disability in reading and cognitive impairment may not complete the survey or response to the survey (Maine CDC, 2017). There may be bias due to self-reporting because the participants may forget, deceive, or may not understand the questions, which may lead to underreporting or overreporting (Maine CDC, 2017). Nonetheless, studies have shown that surveys completed by young adults could provide valid and reliable information that is needed for research (Maine CDC, 2017).

Significance of the Study

Identification of whether or not social support and substance use are associated with mental health problems will help policymakers to develop better mental health policies. The result of this analysis could help practitioners develop focused age-specific interventions for students at risk of mental health conditions secondary to drug use and to plan prevention programs for school-aged youth.

The self-medication theory may be used to identify strategies that will help address the psychobiological factors that contribute to substance use problems (Tronnier, 2015). This study may generate data to better understand the nature of the interrelationship between substance use, social support, and mental health problems (Hall & Queener, 2007; Tronnier, 2015) and may help the practitioner develop an intervention for youths experiencing substance use problems. The RRT may be used to understand an individual's social support perception about social support and its benefits to better health outcomes (Woods Lakey, & Sain, 2016). By understanding social support and its

benefits, practitioners may develop ways to improve social support that will help buffer stressful events; individuals may experience in their lives (Cohen & Will, 1985). Therefore, the RRT may extend to practice to help youth access the social support needed for their well-being. Evidence-based practice may help improve individual health outcomes, so the study on mental health problems association with substance use and social support may identify and buttress the need for intervention that can be used to bring about positive social change in society. This may help an individual from experiencing worsening of mental health problems that may lead to unproductive life in society (Castello, 2016). In all, this study may contribute to the existing body of knowledge on how the prevention of substance use and the promotion of social support could lead to an improvement in mental health outcomes.

Significance to Theory

Khantzian et al. (2017) provided information on the self-medication theory that is used for the psychological underpinnings of substance use that may lead to mental health problems.

The concept of self-medication is used to identify ways to address psychobiological factors that may cause substance use problems (Tronnier, 2015). According to Tronnier (2015), self-medication theory provides a broader understanding of substance use by individuals. Self-medication theory was used to explained substance use association with mental health among youth (Hall & Queener, 2007). Woods et al. (2016) used the RRT to predict the main effect of perceived support based on activity that is shared. The RRT is used to understand better how social support is necessary to

prevent a mental health problem. The study examined mental health problems association with substance use and social support among youth from the public and quasi-public schools in the state of Maine but can be used in many facilities, also applying the self-medication theory and RRT in clinical practice.

The conceptual framework was used to strengthen the understanding of the relationship between mental health problems, social support, and substance use in youth. The theory used in this current study might not apply to other populations, such as young adults or older adults, because the theory in this study was based on the youth population only.

Significance to Practice

Public health professionals are in constant need of evolving empirical evidence to inform evidence-based practice guidelines that will help improve patients' health outcomes. If an association between mental health and (a) social support and (b) substance use among youth is identified, early intervention can be developed to improve positive health outcomes. If an association is found to exist between mental health problems and social support, it will provide data to show the importance of ensuring that individuals with mental health problems have access to the social support that they need. Moreover, any association found in this study will call attention to the merit of continued sharing of data with practitioners who are in the best position to implement an intervention that is needed to improve mental health outcomes.

Significance to Social Change

By evaluating the association between mental health problems, substance use, and social support, specific and more focused intervention can be developed to promote mental health outcomes. If these correlates of mental health problems are identified early in young adults' life, an intervention can be implemented early, and this will help youth with mental health symptoms become more productive in society (Costello, 2016). If the youth with mental health problems receive needed intervention early, this may help worsening of the mental health problem, which could have an untoward effect on the family, community, and population at large. Early intervention will not only help the youth live a more productive life, but it will also help avert future negative effects of mental health problems, including but not limited to the cost of hospitalization and the youth inflicting harm on themselves. This will, without a doubt, bring about positive social change in society (Costello, 2016). Early intervention in preventing substance use among youth that may lead to mental health problems will increase positive social change for the individual, community, and in the population (Spoth, Trudean, Redmond, & Shin, 2014).

Summary and Transition

Mental health problems continue to be a problem in society, and youth in the public school in Maine experience the same problems (Milner et al., 2016). This study focused on mental health problems associated with substance use and social support among youths. There may be an increase in the number of youths experiencing mental health problems associated with substance use and inadequate social support among

youths (Spoth et al., 2014). Even though there are many studies in other populations, there is limited understanding when it comes to mental health problems associated with substance use and social support among youths in public schools in Maine (Milner et al., 2016).

Chapter 2 will present the review of the literature on mental health problems association with substance use and social support.

Chapter 2: Literature Review

Using secondary data from the MIYHS 2017, the purpose of my study was to determine (a) the relationship between mental health problems and substance use among youth who are MS or HS students, (b) the relationship between mental health problems and social support in youth who are MS or HS students, and (c) the relationship between substance use and social support in youth who are MS or HS students. Existing literature suggested that mental health problems are associated with substance use (Amosu et al., 2016; Conway et al., 2018) and social support (Milner et al., 2016) in the adult or overall population. However, the association between mental health problems and social support, as well as between mental health problems and substance use varied between the overall population and young adults (Milner et al., 2016).

Despite many studies on the association of social support and substance use with mental health in the overall population, no research was identified showing that the variables were associated among MS- and HS-aged children (Cheng et al., 2014; Jibeen, 2016; Lakey et al., 2016; Lerissa et al., 2017; Levula et al., 2016; Mason et al., 2014). Therefore, the gap in knowledge regarding the association of social support and substance use with mental health problems among young adults, including middle and high school-aged children, was the focus of this current study.

In this literature review, I evaluated previous studies regarding mental health problems and their association with substance use and social support. This chapter presents the literature search strategy, literature review on mental health problems, social support and substance use, theoretical framework, summary, and conclusion.

Literature Search Strategy

The databases used for the literature review include CINAHL Plus with full text, Medline with full text, Proquest dissertations and theses, Proquest Nursing and Allied health sources, Pubmed, CINAHL and Medline combined sources, Ovid full-text nursing journals, and Psychology full-text sources. The key terms and phrases used for the literature review included mental health problems, mental health, social support, substance use, substance abuse, substance use/abuse intervention, MIYHS, suicidal ideation in youths, sad feelings, and social support interventions.

The articles used for the literature review search included peer-reviewed articles that describe mental health problems and their association with social support and substance use in public and quasi-public schools and published from 2000 through 2018.

Much of the literature on the association of mental health problems with substance use and social support focused on adults, college students, and prisoners, whereas a small number of articles focused on mental health problems that may be associated with substance use and social support in public schools (Amosu et al., 2016; Cheng et al., 2014; Holden et al., 2015; Lerissa et al., 2017).

Theoretical Framework

Two theoretical frameworks were used to guide the study: the theory of self-medication and the RRT.

Theory of Self-Medication

Khantzian's (2017) and David's (1974a) theory of self-medication was used to guide substance use treatment, so I used it in examining substance use in the current

study. Khantzian and David developed the theory to assess and treat drug addiction problems. The self-medication was in the context of regulation where an individual's sense or understanding of regulation matches self-medication. When self-medication is applied to substance use in public and quasi-public schools, the theory may be better understood.

The self-medication theory proposed that there is an underlying reason for drug use. Although Khantzian and Duncan are credited as the originators of the self-medication theory, Fenichel (1945) and Rado (1957) suggested that pressure was an underlying motivation for drug use. Other authors, such as Glover (1956) and Ronsenfeld (1965), have also contributed to this theory. The Khantzian model of self-medication presupposes that drug addiction results from inadequate ability to control aggression; therefore, the drug addict resorts to a drug as a way of controlling their aggressive drive, which leads to physical dependency (Khantzian, 1997b, 1999). This self-medication hypothesis, which originally included cocaine, was subsequently expanded to alcoholism and later developed into a theory (Khantzian, 1997a, 1999). The fully developed self-medication hypothesis asserts that drug addiction results from venerable self-medication (Achalu, 2002).

Duncan's (1974a) version of self-medication, rooted in behavioral theory, makes a distinction between drug use and drug abuse. Duncan asserted that many of the illegal drug users do not qualify as a substance abuser and that the majority of drug users have control over their drug use. Duncan's model is concerned with drug use without a prescription, which could expose the individual to health risk. Duncan maintained that

drug use results from the pleasurable effect of the drug. Duncan's model attempted to explain drug dependence, a term used to replace the term addiction. The theory will help explain the reason youths are using a drug that can lead to mental health problems, which is a health risk.

Theory of Relational Regulation

Lazarus and Folkman's (1984) RRT is used to explain how social support helps individuals manage stress that they may be experiencing in their lives. However, enough support is needed to help the individual cope with the stressor. The stress and coping version of the RRT can explain stress-buffering effects but not the main effect of stress. Therefore, the main effects of perceived social support associated with mental health problems are likely to increase and multiply at a steadier pace than do the buffering effects, so the stress and coping theory are not able to appropriately explain the main effects of perceived social support associated with mental health problems (Lazarus & Folkman, 1984).

The RRT maintained that individuals who think they have someone to assist them in their times of need have better mental health outcomes than those who perceived low social support. The purpose of RRT was to explain the main effect of perceived support on mental health because this effect could not be explained by stress and coping theory. The rationale in the use of RRT is that the association between social support and mental health originates from people regulating their emotions through shared activity and conversation. RRT has been found to have both buffering and a direct effect on mental

health. The regulation of emotion is relational because personal taste determines the topic of conversion, activities, and providers of support (Lazarus & Folkman, 1984).

Cohen and Wills (1985) differentiated between stress-buffering and the main effect, which is the foundation of the RRT. Stress buffering happens when an individual has someone to protect them from the stress they are experiencing. Therefore, the main effects happen when individuals have high social support with better mental health outcomes, while other individuals have low social support, even with or without stress. The stress-buffering theory, a version of the RRT, was developed to explain the social support associated with mental health, which reflects stress buffering. Many authors, including Barrera (1986), Cohen and Wills, Cutrona and Russell (1990), and Thoits (1986), contributed to the development of the stress-buffering theory.

This stress-buffering theory is an extended version of the stress and coping theory, developed by Lazarus (1996) and Lazarus and Folkman (1984). The stress-buffering theory may be summarized into five different factors, such as life events, increased events risk, the stability of social support, availability of social support, and how effective the social support was able to relieve the stress. Even though the stress-buffering theory has been used in many areas of research, there are empirical limitations because this theory only evaluates inconsistency. However, Brown and Harris (1978) found consistency in the stress-buffering theory. Figure 1 illustrates the RRT; the rationale in the use of RRT is that the association between social support and mental health originates from people regulating their emotions through shared activity and conversation. RRT has been found to have both buffering and a direct effect on mental

health. The regulation of emotion is relational because personal taste determines the topic of conversion, activities, and providers of support (Lazarus & Folkman, 1984).

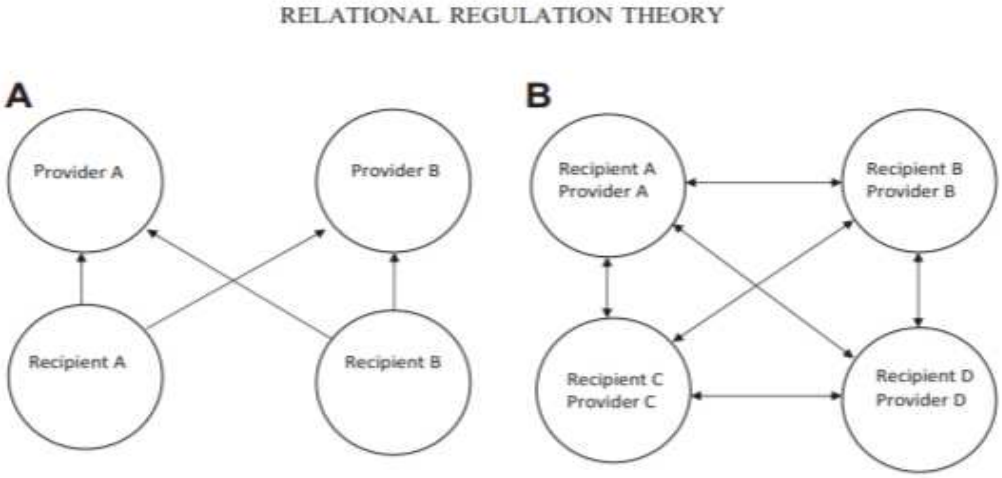

Figure 1. Schematic representation of the relational regulation theory (RRT). Designed for social support research.

Literature Review Related to Key Variables and Concepts

The literature review results are organized by the key variables and concepts: mental health; social support; substance use; MIYHS; the association between mental health and substance abuse; the association between mental health and social support; the association between substance use and social support; existing approaches in the study of mental health, substance use, and social support; theoretical framework; limitation of previous approaches; the rationale for variables in this study; and the gap.

Mental Health

Mental health problems are a significant public health concern and are considered to be a huge disease burden among young people in society (Cheng et al., 2014; Manwell

et al., 2015). As noted by Cheng et al. (2014), mental health is an individual's state of well-being, where these individuals understand their potential, can cope with daily stress in their daily life, be productive, and contribute to their community. Mental health problems in adolescents are considered to be strongly related to mental health in adulthood.

These health problems can be influenced by biological and psychosocial factors (Cheng et al., 2014; WHO, 2014). Other risk factors that affect mental health include genetic, cognitive, temperamental, interpersonal, and family environment (Cheng et al., 2014). In young adults, mental health problems impact educational achievement, substance use, violence tendency, reproduction, and sexual health (Cheng et al., 2014). Therefore, it is necessary to study the risk and the protective factors for mental health problems among adolescents; such a study will help develop effective prevention strategies (Cheng et al., 2014; Conway et al., 2018).

Social Support

Social support is an essential factor that helps the individual cope with changes in their lives (Wang et al., 2017). Social support may help to alleviate distress and provide hope in a time of distress (Cheng et al., 2014). Lack of social support can negatively impact children and young adults' life, especially those exposed to stressful life events (Cheng et al., 2014). Providing social support in the family and the community may help decrease distress and promote hope. Social support is crucial in early adulthood (Holden et al., 2015). Individuals who lose their social networks are at risk for illness (Levula & Harre, 2016).

Social support differs not only by gender but also by age. Women are more likely than men to give and receive social support, to have more social friends, and to focus on a social network (Milner et al., 2016). Relying on social group changes as individuals get older. For example, adolescents have more social networks than older people (Milner et al., 2016).

Substance Use

Substance use is a problem worldwide, and it is a risk factor for many health problems. For example, cannabis is used illegally worldwide at a rate of 3.9% among individuals aged 15-64, and it increases school dropout and motor vehicle accidents (Henchoz et al., 2016).

Research shows that young adulthood is a crucial stage for substance use (Mason et al., 2014), and young adults are more likely to drink heavier than older adults (Mason et al., 2014).

The negative impact of substance use includes an increase in the cost of healthcare, crime, and the yearly loss of productivity (Lerissa et al., 2017). Not only are the financial costs a problem, but more importantly, substance use may predict health risk behaviors that can cause long term negative health outcomes that include decreased mental health (Amosu et al., 2016). Individuals who use substance sometimes face memory problems, clear thinking and decreased attentiveness (Lerissa et al., 2017) which affects youths, particularly at a vulnerable time because of neurodevelopment. Substance use may affect the process peak and the function of neural development that alters the youth's academic and social functioning (Henchoz et al., 2016).

Preventative measures are necessary to decrease health risks and prevent the progression of multiple substance use (Henchoz et al., 2016). There is a need to implement programs and policies that discourage early substance use.

Maine Integrated Youth Health Survey

The MIYHS was developed in 2009 to make an improvement in data quality, decrease the financial burden for Maine schools and expenses (MIYHS, 2017). MIYHS allows multiple survey requests while providing many health topics about youth (MIYHS, 2017). The survey was administered in February 2015 (MIYHS, 2017).

The MIYHS was created and implemented in 2015 through collaboration between the Maine Department of Education and the Maine department of health and human services (MIYHS, 2017). The Pan Atlantic Research of Portland, Maine distributes the 2015 Youth Health Survey (MIYHS, 2017). Four surveys were composed and given to students according to grades (MIYHS, 2017). The middle school and high school survey collected data on many topics including mental health, social support and substance use (MIYHS, 2017). The school must meet specific criteria in order to be eligible to participate in the survey (MIYHS, 2017).

Association Between Mental Health Problems and Substance Use

Mental health and substance use are problematic because they are associated with poor health outcomes, and about 20% of children and adolescents experience mental health problems such as depression because of substance use (Cheng et al., 2014; Lerissa et al., 2017). The use of a substance can adversely affect an individual's mental health; these health consequences from substance use extend to the increase of anxiety (Amosu

et al., 2016). An individual that is experiencing mental health problems along with substance use is considered to be a co-occurring disorder. Depression is a major contribution to substance use in individuals. Many individuals use substance use as a way to cope with mental health (Lerrisa et al., 2017). Excessive substance use, such as alcohol, may be associated with a mental health problem such as suicide, and young adults with depression have a higher risk of comorbidity with suicidal ideation, anxiety, and substance use (Mason et al., 2014).

Almost 20% of individuals with a mental health problem develop a substance use problem in their lifetime, and about 55% of the individuals with mental health and substance use get no treatment, while about 7.4% with both disorders received treatment (Lerrisa et al., 2017). Some barriers prevent help-seeking for mental health and substance use problems such as the stigma of mental health problems, lack of understanding about mental illness in parents and young people, cultural competency, the financial cost, while many individuals with mental health, alcohol, and substance use problems do not seek help (McCann, Mugavin, Renzaho, & Lubman, 2016).

Association Between Mental Health Problems and Social Support

Worldwide, individuals are at higher risk for mental health problems that may be associated with social support (Cheng et al., 2014). Social support contributed to the mental health of individuals. Social support throughout young adult life may contribute to psychosocial wellbeing in individual adult life (Holden et al., 2015). Social support decreased the mortality rate and increased better mental health outcomes in individuals, and early social support may help prevent mental health in adulthood (Holden et al.,

2015). Positive social support associated with mental health varies with gender financial status and an individual stage in their life. However, people with poor social support may experience poor mental outcomes and well-being (Holden et al., 2015). Social support and mental health vary with gender, socioeconomic status, and the stage of life (Holden et al., 2015). Poor social support and mental health may affect individual well-being as the individual ages, and a decrease in social support affect one's mental health, while high social support provides better mental health outcomes (Holden et al., 2015; Shahdad et al., 2017). Social support can minimize daily stressor, and this can protect and improved mental health outcomes (Shahdad et al., 2017).

Association Between Substance Use and Social Support

Substance use and social support affect an individual's well-being. Social support helps decrease the rate of substance use (Holden et al., 2015; Studer et al., 2017). Poor social support from spouse, family, and friends put an individual at risk for substance use. However, the benefits of social support depend on the type of support the individual received (Studer et al., 2017). College students with no positive social networks are at high risk for using substance, including alcohol, tobacco, and marijuana, while support from friends who use substances may increase an individual's risk, support from spouse and family may be protective to prevent substance use ((Mason et al., 2014; Studer et al., 2017).

Existing Approaches in Study of Mental health, Substance Use, and Social Support

Research Approach

Milner et al. (2016) assessed the association between social support and mental health by age and gender using 13 years of cohort data. The authors used mental health Inventory-5 (MHI-5). A social support scale was used which composed of 10 items. A change in mental health was assessed using longitudinal fixed effects regression model controlling for time. Results suggest that a higher level of social support helps improve mental health. A cohort study using risk factors (C-SURF) and longitudinal study design to assess risk and protective factors for substance use in adulthood (Studer et al., 2017). The perception of social support was examined using a multidimensional scale (Jibeen, 2016). The MSPSS that consist of 12-items that got a score on a 7 point li kart-type scale ranging from 1 through 7, where one strongly agrees, and seven is strongly disagreed (Jibeen, 2016). Results showed that the coefficient of correlation that mental health problems increased with the low level of familiar social support (Jibeen, 2016). The authors assessed the differences in mental health and substance use among gender and education levels using 634 American Indians from the Eastern Tribe (Ni et al., 2017). The study analysis used logistic regression analysis of variance. The study showed that men self-rated better mental health but binge drank and used illicit drugs more frequently than females. Individuals who had a post-high school degree had better mental health than individuals who did not have a high school diploma. The increase in education decreased the use of a substance such as cigarette smoking. Illicit drugs include marijuana, cocaine, and LSD.

Theoretical Framework

The theories used for this study is the strengthening families program for youth 10-14 and life skills training, and the life skill training is based on social learning theory (Spoth et al., 2014). Personal social network framework used to understand better substance use intervention and their supportive and unsupportive network to assess participant's behavior and their recovery (Tracy, Munson, Peterson, & Floersch, 2010). The study used the risk, and the protective factors for mental health problems and the impact on cultural and geographical variations have on mental health outcomes on adolescents to help develop effective prevention strategies, and psychosocial factors help determine an individual's well-being (Cheng et al., 2014; Levula et al., 2016). The study assessed the association between mental health scores and social network factors on mental health across different life stages (Levula et al., 2016).

Rationale for Variables in this Study

The youth health survey (MIYHS) was used to improve data quality, decrease collection expenses, and decrease survey burden on Main schools (MIYHS, 2017). The collaborative survey decreased the burden on schools by using several survey requests and gives local and state-level data a broad range of health topics about youths (MIYHS, 2017).

The tool that was used to collect the self-reported data can use in schools to assess risk behaviors and protective factors of youths in society among states and nationwide level data (MIYHS, 2017). The variables can be used by districts to create policy change in school, shows a connection between youth academic performance, health risk

behaviors, schools climate problems, and help in getting grants for school programs (MIYHS, 2017). Longitudinal studies found that social support may predict the outcome of mental health problems (Holden et al., 2015). Low friendship security is related to poor mental health outcomes, which include depressive symptoms (Mason et al., 2014).

Gap

More research is needed to address mental health problems in young people living in already challenge with competing health and social burden and should not be neglected (Cheng et al., 2014). More research is needed for substance use and mental health for the implementation of early intervention for better health outcomes for youths (Conway et al., 2018). My study is needed to examine the social support network properties across different stages of life and not just in isolation of one another, and the influence of peer networks on mental health symptoms among college students has been less studied. Therefore, further research on the development of interventions that target the social context of health is needed (Levula & Harre, 2016; Mason et al., 2014).

Summary and Conclusions

Mental health problem has been shown to be associated with substance use and with a lack of social support, but little research has examined the problem among the youth. Therefore, there is a gap in the examination of social support and substance use and their association with mental health problems among youths. The databases used to find full-text sources on mental health, substance use and social support include: CINAHL Plus with full text, Medline with full text, Proquest dissertations and theses, Proquest Nursing and Allied health sources, Pubmed, CINAHL and Medline combined

sources, Ovid full-text nursing journals, and Psychology. I used secondary data and quantitative methods to examine the association between substance use and social support. Two conceptual frameworks, the self-medication theory and the RRT served as a foundation for understanding mental health problems and their association with social support and substance use.

Chapter 3 presents the research design and rationale, methodology, including population, sampling procedures, archival data, instrument, reliability, and validity. The analysis tool and the data analysis used to analyze the data are explained.

Chapter 3: Research Method

Using secondary data from the MIYHS 2017, the purpose of my study was to determine (a) the relationship between mental health problems and substance use among youth who are MS or HS students, (b) the relationship between mental health problems and social support in youth who are MS or HS students, and (c) the relationship between substance use and social support in youth who are MS or HS students.

Chapter 3 will present the research design and rationale. The methodology includes population, sampling procedures, and archival data, as well as the chosen instrument, reliability, and validity. The analysis tool and the techniques used to analyze the data are explained.

Research Design and Rationale

The study was a cross-sectional, retrospective, correlational design. For assessment of the association between mental health problems with social support or with substance use, the independent variables are social support and substance use, whereas the dependent variable is a composite of mental health problems (suicidal ideation or sad feelings). For the assessment of the association between substance use and social support, the independent variable is social support, and the dependent variable is substance use.

There was no time constraint except the time necessary to get the secondary data from the Maine CDC. The results of this quantitative, correlational study may help provide a better understanding of the relationship among mental health problems, social support, and substance use, and the type and strength of the relationship. Hence, results from this study may provide strategies that support youth in the community by reducing

the risk of mental illness and substance-abuse-related outcomes while promoting social support for youth. The MIYHS (2017) data can be used to identify the strengths and challenges facing young people in society.

Methodology

This study involved a secondary, quantitative correlational analysis of data from the MIYHS to determine the association of variables related to mental health problems, substance abuse and social support. The sampling frames for the MIYHS comprised Maine's public and quasi-public schools that enrolled at least 10 students. The questionnaire was administered to all students in the school districts in the state. Students were required to answer the questions after consent forms were signed by parents. To be eligible to participate in the MIYHS study, the students had to be in kindergarten-third grade, fifth-sixth grade, seventh-eighth grade (MS), and ninth through 12th grade (HS). The MS and HS surveys included four versions each (i.e., Version A, Version B, Version C, and Version D).

Population

The population used for this study was drawn from the MS and HS students' responses to the questionnaire in the state of Maine .Although other grades were included in the original study survey, they were not included in the current secondary data analysis. Access to the MIYHS data set required the principal investigator's signed confidentiality agreement, the institutional review board (IRB) approval, and project data supervisor approval. I contacted the organization and spoke with the representative who granted access to the data.

Sampling Procedures

A stratified random sampling was used to conduct the original study and included all Maine's public schools, quasi-public schools, and private schools that received about 60% of public funds (MIYHS, 2017). Schools with fewer than 10 students were excluded, as were schools with alternative education and youth development centers. Schools that did not respond were replaced by schools that were randomly selected from the sample interval (MIYHS, 2017).

Archival Data

To gain access to the MIYHS data set, I signed a confidentiality agreement from the CDC. I also secured IRB approval before commencing the study. Because this study uses secondary data analysis, no informed consent was needed for the current study. However, authorization was needed from the Maine CDC to use the data set.

Instrumentation and Operationalization of Constructs

For this study, I used secondary data analysis with no direct interaction with participants. The data were collected by the Maine CDC using the MIYHS, which was developed and implemented in 2015 by the collaborative effort of the Maine Department of Education and the Maine Department of Health and Human Services. Four different questionnaires labeled Versions A, B, C, and D were used to obtain information from participants. Many questions used in the MIYHS survey were taken from other national surveys. Some of the questions were taken from the National Youth Risk Behavior Survey (YRBS). The reliability and validity of the YRBS questionnaire were conducted by the Centers for Disease Control and Prevention (CDC, 2004) using two test-retest

reliability studies. One study was done in 1992, and the second study was done in 2000 (CDC, 2004).

Kappa was equal to 61%-100%, with no statistically significant differences between the prevalence estimates for the first and second times the questionnaire was administered. Kappa is used to measure the validity and reliability of the instrument (CDC, 2004). Ten items (14%) had both Kappa less than 61% and significantly different time-1 and time-2 prevalence estimates, which indicates that the reliability of those questionnaire items is questionable (CDC, 2004). The CDC asserts that the validity of adult self-reporting of behaviors measured by YRBS is not threatened by cognitive and situational factors (CDC, 2004). Responses from the 7th–grade students were less consistent than those from students in higher grades, suggesting that the questionnaire is best suited for students in Grade 8 or higher (CDC, 2004).

The MIYHS survey results were appropriate for my study because the variables used in my study were available from the question asked in the MIYHS and the variables provided the answers to the questions that were used in the study to assess the association between mental health with social support and substance use. The construct assessing mental health, social support, and substance were taken from the MIYHS questionnaire:

Mental Health

- Item 14: (Have you ever seriously thought about killing yourself).
- Item 18: (During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities);

- Item 20: (During the past 12 months, did you ever seriously consider attempting suicide).

Substance Abuse

- Item 32: (Have you ever used an electronic vapor product), and
- Item 45: (About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs).
- Item 63: (During the past 30 days, how many times did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription).
- Item 69: (During your life, how many times have you used any form of cocaine, including powder, crack or freebase), and
- Item 85 (About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs).

Social Support

- Item 107: (I have support from adults other than my parents),
- Item 108: (I have a family that gives me love and support) are included in the construct for social support.

(See Appendix for the whole questions.)

Reliability and Validity

MIYHS is a reliable and a standard instrument developed and validated by the Maine CDC. Many questions in the MIYHS survey were taken from other national surveys. Some of the questions were taken from the YRBS. The reliability and validity of

the latter were performed by the CDC using two test-retest reliability studies, one in 1992 and a second one in 2000 (CDC, 2004). In the first study, results showed that about three-fourths of the items used in the questionnaire were rated as having substantial or higher reliability (CDC, 2004). Kappa was equal to 61%-100%, with no statistically significant differences between the prevalence estimates for the first and second times the questionnaire was administered. The second study result in 2000 showed that about one of five items (22%) in the questionnaire had significantly different prevalence estimates for the first and second times that the questionnaire was administered (CDC, 2004). In 2003, the CDC conducted a review of existing empirical literature to assess cognitive and situational factors that might affect the validity of adolescent self-reporting of behaviors measured by the YRBS questionnaire (CDC, 2004). The CDC determined that although self-reports of these types of behaviors are affected by both cognitive and situational factors, these factors do not threaten the validity of self-reports of each type of behavior equally (CDC, 2004).

Data Analysis Plan

Because the sample collected by the MIYHS was stratified by county, public health district, or schools, all estimates were weighted to reflect the distribution of the variables in the middle and high school student population.

In this study, I addressed three research questions:

Research Question 1: Using the MIYHS dataset, what is the relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age.

To answer question 1, I used odds ratios from a logistic regression model to determine the relationship, direction, strength, and significance between mental health problems variables and substance use. Mental health and substance were nominal (dichotomous). When the dependent variable is dichotomous, logistic regression model, which gives the odds ratio, allows for adjustment of potential confounders in multivariable analysis.

Research Question 2: Using the MIYHS dataset, what is the relationship between mental health problems and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

H_{a1}: There is a relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

To answer question 2, I used the odds ratio from a logistic regression model to determine the relationship, direction, strength, and significance between the mental health variable and substance use. Mental health problems and substance will be nominal (dichotomous). The odds ratio was used for the reasons given above.

Research Question 3: What is the relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

To answer question 3, I used the odds ratio from a logistic regression model to determine the relationship direction strength and significance between mental health variables and substance use. Mental health and substance used nominal (dichotomous). The justification for using the odds ratio is provided in question 1 above.

Threats to Validity

The original questionnaires were tested and retested and were found to be valid and reliable. To ensure that the design features are maintained during analysis, all estimates were weighted to reflect the distribution of the variables in the middle and high school student population (CDC, 2004). In 2003, the CDC conducted a review of existing empirical literature to assess cognitive and situational factors that might affect the validity of adolescent self-reporting of health risk behaviors measured by the YRBS questionnaire (CDC, 2004). The CDC determined that although self-reports, health risk behaviors are affected by both cognitive and situational factors, these factors do not threaten the validity of self-reports of each type of behavior equally (CDC, 2004). Further details can be found in the CDC codebook.

Ethical Procedures

This current study included analysis of secondary data; therefore, no informed consent was needed. Authorization for use of the MIYHS was obtained from the Maine CDC after I signed a confidentiality agreement and the Walden IRB approval was obtained. No data access or analysis began until both the CDC and the Walden IRB approvals were obtained.

Summary

This chapter presents the design and rationale for the current study. Using the MIYHS survey, I analyzed the MIYHS secondary data to assess whether an association exists between mental the variables of health problems, substance use, and social support.

For the current study, I focused on MS and HS students' data from Maine's public quasi-public, and private schools from the 2017 MIYHS. To ensure that the design features (e.g., stratification, cluster, etc) were maintained during analysis, I used weightings consistent with the original survey results reported by the CDC to reflect the distribution of the variables in the middle and high school student population. Multivariable logistic regression used to assess whether an association exists between dependent and independent variables, and this regression analysis enabled adjustment for possible confounders. Chapter 4 will provide the study results and summary.

Chapter 4: Results

Introduction

Using secondary data from the MIYHS 2017, the purpose of my study was to determine (a) the relationship between mental health and substance use among youth who are MS or HS students, (b) the relationship between mental health problems and social support in youth who are MS or HS students, and (c) the relationship between substance use and social support in youth who are MS or HS students.

I addressed the following research questions:

Research Question 1: Using the MIYHS dataset, what is the relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between mental health problems and substance use in youth who are MS years of age and youth who are HS years of age.

Research Question 2: Using the MIYHS dataset, what is the relationship between mental health problems and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

H_{a1}: There is a relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

Research Question 3: What is the relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

Mental health problems were measured based on MIYHS items that asked questions on sad feelings or suicidal ideation for the past 2 weeks. The items with questions on mental health problem are as follows:

- During the past 12 months, did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some usual activities?
- During the past 12 months, did you ever seriously consider attempting suicide?

Social support was measured based on MIYHS items that asked questions about love and support from family as well as communication with family and friends. These were captured by the following two items:

1. I have a family that gives me love and support.
2. I have parents who are good at talking with me about things.

Substance use was measured based on MIYHS items that asked questions about the use of substances. The following item captured information on substance use:

- During your life, how many times have you used any form of cocaine, including powder, crack, or freebase.

This chapter will present data collection, study results, and a summary.

Data Collection

The Maine CDC collected data from February 2nd through February 13th, 2015, for MS and HS youths using specific surveys developed for their respective age groups. The MIYHS was developed and implemented in 2015 by the collaborative effort of the Maine Department of Education and the Maine Department of Health and Human Services, and The Pan Atlantic Research of Portland, Maine administered the 2015 Youth Health Survey (MIYHS, 2017). Many questions in the MIYHS survey were taken from other national surveys such as the YRBS. The reliability and validity of the YRBS questionnaire were evaluated by the CDC using two test-retest reliability studies (CDC, 2004). The MIYHS is appropriate for this study because the variables used in the survey contained the variables that were used in the study to assess the association between mental health problems with social support and substance use.

Sampling Process

The CDC used stratified random sampling to obtain participants. The sampling frame included all of Maine's public schools, quasi-public schools, and private schools that had about 60% of public funds. Schools with fewer than 10 students were excluded, as were schools with alternative education and youth development centers. The sample interval of 14.33 was computed by dividing the frame of 344 participants with the desired sample size of 24 schools. A random number was chosen from 1 to 14.33, and a random

number was 1. Therefore, the first school was chosen, followed by every 14.33th school rounded to the nearest integer taken. Schools that did not respond were replaced by schools that were randomly selected from the sample interval (MIHYS, 2017). During the data collection process, some schools were no longer eligible to participate in the survey due to the reconfiguration of the grades or school closure. Therefore, these schools were replaced to ensure that there was an adequate sample size and response rate.

Weighting

For this study, the pre-computed base weight and the principal sampling unit (PSU) provided by the CDC were used. The computational details of the weight are presented in the MIYHS methodology book (CDC, 2015). A brief outline of the method used by the CDC for computing the weight is as follows. For the MS and HS survey, all the schools that were eligible received an initial base weight of one (1). For the school that participated in the MS and HS surveys, the base weight was computed to reflect the probability of the specific version assignment. The count from summarizing the response data was used to obtain the version probability of version assignment. For the survey version assigned to a class, the ratio of the class version to all the classes within the school was used. To obtain the overall probability of each version assignment, the school probability for that version was multiplied for that class version.

The base weight for the school and class within the school version assignment process was calculated as one divided by the assignment probability of each version. According to the Maine CDC (2017), the version base weights were then computed as 1 divided by the product of the stage weight, that is, Base weight = 1 / mod_pM, M Є (A,

B, C, D). The computed weight, principal sampling unit, and stratification variable for different levels of analysis were provided in the data sets by the Maine CDC. Other methodological details are found in the codebook (MIYHS, 2015).

To gain access to the MIHYS data set, I signed a confidentiality agreement. I also signed a data sharing and protection agreement. I obtained IRB approval from Walden University and the Maine CDC before I commenced with the data analysis. Because this study is a secondary data analysis, no informed consent was needed from participants. However, I obtained authorization from the Maine CDC to use the MIYHS dataset for analysis. Once all documentation was completed, a USB drive with single-user password-protected data was sent to me by the CDC Maine.

Change in Planned Analysis

The original goal, as documented in earlier chapters, was to measure substance use using the following questions:

- During your life, how many times have you used methamphetamines (also called speed, crystal, crack, or ice)?
- During your life, how many times have you used ecstasy (also called MDMA)?

However, these two questions were not in the data set I received from Maine CDC. Therefore, to offset this data limitation, I used the following substitute question for substance use: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

Data for the Current Study

For the current study, I used the dataset provided by the CDC after selecting the specific questions needed for my analysis.

Research Question 1: Using the MIYHS dataset, what is the relationship between mental health and substance use in youth who are MS years of age and youth who are HS years?

H_{01}: There is no relationship between mental health and substance use in youth who are MS years of age and youth who are HS years.

H_{a1}: There is a relationship between mental health and substance use in youth who are MS years of age and youth who are HS years.

To answer Research Question 1, I used:

- Item 14: Have you ever seriously thought about killing yourself?
- Item 18: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities;
- Item 20: During the past 12 months, did you ever seriously consider attempting suicide.
- Item 32: Have you ever used an electronic vapor product?
- Item 69: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase.

Possible confounder

- Item 85: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

- Item 45: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Research Question 2: Using the MIYHS dataset, what is the relationship between mental health problems and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

H_{a1}: There is a relationship between mental health problems and social support in youth who are MS years of age and those who are HS years of age.

To answer Research Question 2, I used:

- Item 18: During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities;
- Item 107: I have support from adults other than my parents.
- Item 108: I have a family that gives me love and support.

Possible confounder

- Item 45: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?
- Item 85: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Research Question 3: What is the relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

To answer research question three, I used:

- Item 63: During the past 30 days, how many times did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?
- Item 69: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase.

Possible confounder

- Item 45: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?
- Item 85: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?
- Item 108: I have a family that gives me love and support) are included in the construct for social support.

Statistical Analysis

After importing the data into SPSS, I cleaned the data to get it ready for analysis. Students with sixth grade, Ungraded or other grades, or no response to grade question (In what grade are you?) have their grade set to missing prior to analysis (per communication with Maine CDC). I recoded some multi-category variables into two categories (yes or

no) to avoid a sparse category that might cause convergence problems. The recoded variables are presented in Table 1. Because the sample collected by the MIYHS was stratified by county, public health district, or schools, I applied weight to all estimates to reflect the distribution of the variables in the middle and high school student population in Maine. Without weighting to reflect the survey design, any analysis will be invalid.

Table 1

Recoded Items in Current Study

Items	Original data response categories	Current study recoded response categories
Item 69: During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?	1 = A. 0 times 2 = B. 1 or 2 times 3 = C. 3 to 9 times 4 = D. 10 to 19 times 5 = E. 20 to 39 times 6 = F. 40 or more times,	1 is recoded to 0 (None) 2 to 6 is recoded to 1 (Yes: at least once) Missing is recoded to missing
Possible Confounder: Item 85 (for HS)/ Item 45 (for MS): About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine or other drugs)?	1 = A. None 2 = B. 1 adult 3 = C. 2 adults 4 = D. 3 or 4 adults 5 = E. 5 or more adults,	1 is recorded to 0 (none) 2 to 5 is recorded to 1 (Yes) Missing is recorded to missing
Item 107: I have support from adults other than my parents	1 = A. Not at all or rarely 2 = B. Somewhat or sometimes 3 = C. Very or often 4 = D. Extremely or almost always.	1 is recorded to 0 (none) 2 to 4 is recorded to 1 (Yes) Missing is recorded to missing
Item 108: I have a family that gives me love and support.	1 = A. Not at all or rarely 2 = B. Somewhat or sometimes 3 = C. Very or often 4 = D. Extremely or almost always,	1 is recorded to 0 (No/rarely) 2 to 4 is recorded to 1 (Yes: I receive love and support) Missing is recorded to missing
Item 63: During the past 30 days, how many times did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?	1 = A. 0 times 2 = B. 1 or 2 times 3 = C. 3 to 9 times 4 = D. 10 to 19 times 5 = E. 20 to 39 times 6 = F. 40 or more times.	1 is recorded to 0 (None: 0 times) 2 to 6 is recorded to 1 (Yes: at least once) Missing is recorded to missing

I selected questions that appear on all four questionnaire versions. Because I was interested in the analysis at all levels, the weighting, principal sampling unit, and strata reflected this level of analysis. The reason for analysis at all levels is to ensure results can be applied to MS and HS students in the state of Maine. The weighting variables to reflect different levels of analysis were provided by the CDC. To prepare the data for state-level analysis, I created a dataset with appropriate variables that reflect the complex survey design for this chosen level of analysis. These variables include str_notschool for the strata, psu_notschool for principal sampling unit or cluster, and wstaabcd for the weight; these variables were provided by CDC. I applied the finite population correction (FPC) for estimating variance under simple random sampling assumption (FPC Factor, 2008).

Because of the very large sample size (e.g., *N*= 35,503 for HS), the p-value for testing association had statistical significance even when the effect (odds ratio) size lacked practical importance. Therefore, the confidence interval was considered more appropriate for testing hypotheses since the significance test using p-value can be inverted to produce a confidence interval (Knapp, 2017). This is consistent with the efforts of American Statistical Associate in discouraging widespread wrongful use of p-values (Wasserstein & Lazar, 2016). Using univariate and multivariable logistic regression, I calculated the odds ratio for assessing the association between mental health problems and social support and that between mental health problems and substance use. I also used logistic regression to compute odds ratios for assessing the association between social support and substance use. A reason for the multivariate logistic

regression is to assess whether the added covariate (adult over 21 that use substances) will be a confounder of the identified association from the univariate model. This confounding will be assessed by change in the univariate odds ratio when the variable is added into the multivariable logistics regression model. The multivariable logistic regression model adjusted for a response to the following item: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

An important assumption of logistic regression is that the log odds (logit) of the dependent variable are linearly related to the independent variable. Although Hosmer-Lemeshow goodness of fit test is often used for assessing goodness-of-fit for logistic regression, this test would be inappropriate in complex surveys as weighting invalidate the assumption of independence, identical distribution required for the Hosmer-Lemeshow goodness of fit test (Archer, Lameshow, & Hosmer, 2007; Shah, Institute, & Barnwell, 2003). A goodness of fit test was based on pseudo R-square. Analyses were performed using SPSS Version 26 premium with an add-on for complex surveys.

Results

Demographics

In total, there are 35,503 participants for HS. Weighted data available on HS were 55,088; of these, 26,456 are female, and 28296 were male. The majority (90.0%) are white, and least (0.1%) represented are Native Hawaiian or other Pacific Islander. Table 2 present the demographic characteristics of the participants.

Table 2

Demographics

Characteristics	HS (High School)				MS (Middle School)			
	Actual count	Weighted count	%	95% CI	Actual count	Weighted count	%	95% CI
Age (years)								
10 or younger	N/A	N/A	N/A	N/A	20	19	0.1	0.0, 0.1
11	N/A	N/A	N/A	N/A	65	89	0.3	0.2, 0.4)
12 or younger	160	190	0.3	0.3, 0.4	5038	7384	27.2	26.0, 28.5
13	83	109	0.2	0.1, 0.3	9059	13264	48.9	48.0, 49.8
14	5193	7354	13.3	12.8, 13.9	4153	6105	22.5	21.5, 23.5)
15	9359	13532	24.6	24.0, 25.2	167	235	0.9	0.7, 1.1)
16	9185	13962	25.3	24.8, 25.9	18	21	0.1	0.0, 0.1)
17	7887	13502	24.5	23.8, 25.2	N/A	N/A	N/A	N/A
18 or older	3524	6439	11.7	11.0, 12.4	N/A	N/A	N/A	N/A
Sex								
Female	17742	26456	48.3	47.7, 49.0	9158	13071	48.5	47.6, 49.4
Male	17395	28296	51.7	51.0, 52.3	9234	13871	51.5	50.6, 52.4
Grades								
7th	N/A	N/A	N/A	N/A	9220	13508	50.2	48.5, 52.0
8th	N/A	N/A	N/A	N/A	9069	13301	49.5	47.7, 51.2
9th	9698	13681	25.0	24.3, 25.8	N/A	N/A	N/A	N/A
10th	9465	13873	25.4	24.7, 26.0	N/A	N/A	N/A	N/A
11th	8636	13517	24.7	24.1, 25.4	N/A	N/A	N/A	N/A
12th	7100	13386	24.5	23.4, 25.6	N/A	N/A	N/A	N/A
Ungraded or other grade	149	200	0.4	0.3, 0.5	63	82	0.3	0.2, 0.4
Ethnicity Hispanic or Latino								
Yes	1849	1500	2.8	2.6, 3.0	958	668	2.7	2.4, 2.9
No	32706	52282	97.2	97.0, 97.4	16228	24483	97.3	97.1, 97.6

Table 2 continued

Demographics

Characteristics	HS (High School)				MS (Middle School)			
	Actual count	Weighted count	%	95% CI	Actual count	Weighted count	%	95% CI
Race								
American Indian or Alaskan Native	951	725	1.4	1.2, 1.5	576	402	1.6	1.4, 1.8
Asian	1133	984	1.8	1.3, 2.5	351	251	1.0	0.8, 1.2
Black or African American	1086	892	1.7	1.1, 2.5	648	455	1.8	1.1, 3.0
Hispanic								
Native Hawaiian or Other Pacific Islander	1849	1500	2.8	2.6, 3.0	958	668	2.7	2.4, 3.0
	95	77	0.1	0.1, 0.2	61	43	0.2	0.1, 0.2
White	27644	47920	90.0	88.8, 91.1	13414	22346	90.0	88.6, 91.3
Multiple Races	1444	1158	2.2	2.0, 2.4	942	659	2.7	2.4, 2.9

In total, there were 18,706 participants for MS. Weighted data available on MS were 27115; of these, 13071 are female, and 13871 are male. Similar to the data for HS, the majority of the participants in MS (90.0%) are white, and least (0.2%) represented are Native Hawaiian or other Pacific Islander.

Answers to Research Questions

Research Question 1. Using the MIYHS dataset, what is the relationship between mental health and substance use in youth who are MS years of age and youth who are HS years?

H_{01}: There is no relationship between mental health and substance use in youth who are MS years of age and youth who are HS years.

H_{a1}: There is a relationship between mental health and substance use in youth who are MS years of age and youth who are HS years.

Since the 95% confidence interval for the odds exclude one (1), I rejected the null and conclude that the association between mental health and substance use is statistically significant.

To answer research question # 1, I conducted a statistical analysis using odds ratios to determine the relationship between mental health (dependent variable) and substance use (independent variable). The results are presented below.

High school: Frequencies. Of the 26,034 weighted participants for HS, approximately (14.7%) of the participants indicated they seriously consider attempting suicide during the past 12 months, while 85.3% indicated not seriously consider attempting suicide. About four percent (4.3%) of the participants indicated that they had used cocaine, including powder, crack, or freebase, whereas 95.7% have indicated no use of cocaine, including powder, crack, or freebase. Table 3 presents the frequency of the participants' responses.

Table 3

Prevalence of Mental Health and Substance Use Among HS Students

Items	Actual count	Weighted count	Percent: 95% CI)
Ever seriously consider attempting suicide during the past 12 month			
Yes	5296	3827	14.7
No	29416	22207	85.3
Have you used any form of cocaine, including powder, crack or freebase			
Yes	860	1112	4.3
No	16130	24922	95.7

High school: Univariate odds ratio. The odds of seriously consider attempting suicide during the past 12 months among participants who used any form of cocaine, including powder, crack or freebase is 3.94 (CI: 3.36,4.61) times that of the odds among participants who do not use any form of cocaine, including powder, crack or freebase. In other words, the use of any form of cocaine, including powder, crack, or freebase is associated with 293% higher odds of seriously considering attempting suicide in the past 12 months. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 4 presents the univariate analysis of the participants. Table 4 presents the odds ratio.

***High school: Multivariable or adjusted odds ratio*.** Controlling for adults over 21 around participants who have used illegal substances in the past for HS, the odds of ever seriously considering attempting suicide during the past twelve months among participants who indicated the used of cocaine, including powder, crack or freebase is 3.057 increased in odds than among participants who indicated no use of cocaine, including powder, crack or freebase. This suggests that the use of cocaine, including powder, crack, or freebase, is associated with 205.7% higher odds of participants ever seriously considering attempting suicide during the past twelve months. Table 4 presents the adjusted odds ratio between mental health and substance use.

Table 4

Univariate and Multivariable Odds Ratio for Assessing the Association Between Mental Health and Substance Use Among HS Students

Items	Univariate odds ratio (95% CI)	Multivariable odds ratio (95% CI)
Dependent: Ever seriously consider attempting suicide during the past 12 month		
Have you used any form of cocaine, including powder, crack or freebase Yes vs. No	3.935 (3.360, 4.608)	3.057 (2.383, 3.924)

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

***Middle school: Frequencies*.** Of the 12,961 weighted participants for MS, approximately sixteen percent (16.5%) of the participants seriously thought about killing them self, while 83.5% indicated no thought about killing them self. About ten percent (10.3%) of the participants indicated ever used an electronic vapor product, whereas 89.7% have indicated no use of an electronic vapor product. The odds of participants who thought about killing themselves is 3.692 (CI: 3.174, 4.294) times that of the odds among MS participants who do not use an electronic vapor product. In other words, serious thought about killing oneself in MS is associated with 269% higher odds of using an electronic vapor product. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 5 presents the frequency of the MS participants.

Table 5

Frequency of Prevalence of Mental Health and Substance use Among MS Students

Items	Actual count	Weighted count	Percent: 95% CI
Have you ever seriously thought about killing yourself			
Yes	3074	2142	16.5
No	15155	10820	83.5
Have you ever used an electronic vapor product			
Yes	991	1339	10.3
No	8072	11622	89.7

***Middle school: Multivariable or adjusted odds ratio*.** Have you ever seriously thought about killing yourself (dependent variable). Have you ever used an electronic vapor product (independent variable). The model did not converge for the MS. Table 6 presents the odds ratio and adjusted odds ratio.

Table 6

Univariate and Multivariable Odds Ratio for Assessing the Association Between Mental Health and Substance Use Among MS Students

Items	Univariate odds ratio (95% CI)	Multivariable odds ratio (95% CI)
Dependent: Have you ever seriously thought about killing yourself		
Have you ever used an electronic vapor product Yes vs. No	3.692 (3.174, 4.294)	Model did not converge

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Research Question 2. Using the MIYHS dataset, what is the relationship between mental health problems and social support in youth who are MS years of age and youth who are HS years of age?

To answer research question # 2, I conducted a statistical analysis using the odds ratios to determine the relationship between mental health problems (dependent variable) and social support (independent variable).

High school: Frequencies. Of the 34,989 weighted participants for HS, approximately twenty-six percent (26.9%) of the participants indicated feeling sad or hopeless almost every day for 2 weeks or more in the past 12 months, while 73.1% indicated not feeling of sad or hopeless for the same time period. About ninety-one percent (91.9%) of the participants indicated that they have social support, while 8.1% indicated no social support. Table 7 presents the frequency of the participants.

Table 7

Frequency of Prevalence of Mental Health and Social Support Among HS Students

Items	Actual count	Weighted count	Percent: 95% CI
Feeling sad or hopeless almost every day for two weeks or more in the past 12 months			
Yes	9462	9417	26.9
No	24835	25571	73.1
Support from adults other than my parents			
Yes	20985	32154	91.9
No	2070	2834	8.1

High school: Univariate odds ratio. The odds of feeling sad or hopeless almost every day for 2 weeks or more in the past 12 months among participants who have support from adults other than parents is 0.467 (CI: 0.419,0.521) times that of the odds among participants without support from adults other than parents. In other words, support from adults other than parents is associated with 53% lower odds of feeling sad or hopeless almost every day for 2 weeks or more in the past 12 months. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 8 presents the odds ratio.

High school: Multivariable or adjusted odds ratio. Controlling for adults over 21 around participants who have used substance in the past for HS, the odds of feeling sad or hopeless almost every day for 2 weeks or more during the past twelve months among participants who indicated support from adults other than parents is 0.422 times the odds

among participants who indicate no support from adults other than parents. This suggests that support from adults other than parents is associated with 57.8% lower odds of feeling sad or hopeless almost every day for 2 weeks or more. Table 8 presents the adjusted odds ratio.

Table 8

Univariate and Multivariable Odds Ratio for Assessing the Association Between Mental Health and Social Support Among HS Students

Items	Univariate odds ratio (95% CI)	Multivariable odd ratio (95% CI)
Dependent: Feeling sad or hopeless almost every day for 2 weeks or more in the past 12 months		
Support from adults other than my parents Yes vs. No	0.467 (0.419, 0.521)	0.422 (0.348, 0.511)

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Middle school: Frequencies. Of the 6,442 weighted participants of MS, approximately nineteen percent (19.4%) of the participants indicate that they felt so sad or hopeless almost every day for 2 weeks or more in a row that they stopped doing some unusual activities, while 80.6% indicated not feeling so sad or hopeless almost every day for 2 weeks or more in a row that they stopped doing some unusual activities. Most (97.4%) of the participants indicated that the family gives them love and support, whereas 2.6% have indicated that no family gives them love and support. Table 9 presents the frequency of the participants.

Table 9

Frequency of Prevalence of Mental Health and Social Support Among MS Students

Items	Actual count	Weighted count	Percent: 95% CI
Have you ever felt so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some unusual activities	2036	1247	19.4
Yes	7024	5195	80.6
No			
Family give me love and support			
Yes	12458	6273	97.4
No	435	169	2.6

Middle School: Univariate Odds Ratio. The odds of feeling so sad or hopeless almost every day for 2 weeks or more in a row that participants stopped doing some unusual activities is 0.249 (CI: 0.170,0.364) times that of the odds among participants who had family that give them love and support. In other words, family love and support was associated with 75% lower odds of feeling so sad or hopeless almost every day for 2 weeks or more in a row. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 10 presents the odds ratio.

Middle school: Multivariable or adjusted odds ratio. Controlling for adults over 21 around participants who had used substance in the past for MS, the odds of feeling sad or hopeless almost every day for 2 weeks or more among participants who indicated their family gives them love and support was 0.285 times the odds among participants who indicate their family did not give them love and support. This suggests that family love

and support are associated with 71.5% lower odds of feeling sad or hopeless almost every day for 2 weeks or more. Table 10 presents the adjusted odds ratio.

Table 10

Univariate and Multivariable Odds Ratio for Assessing Association Between Mental Health and Social Support Among MS Students

Items	Univariate odds ratio (95% CI)	Multivariable odd ratio (95% CI)
Dependent: Have you ever felt so sad or hopeless almost every day for 2 weeks or more in a row that you stopped doing some unusual activities		
Family give me love and support Yes vs. No	0.249 (0.170, 0.364)	0.285 (0.191, 0.425)

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Research Question 3. What is the relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age?

H_{01}: There is no relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

H_{a1}: There is a relationship between substance use and social support in youth who are MS years of age and youth who are HS years of age.

Since the 95% confidence interval for the odds exclude one (1), I rejected the null and conclude that the association between substance use and social support is statistically significant.

To answer Research Question 3, I conducted a statistical analysis using the odds ratios to determine the relationship between mental health (dependent variable) and social support (independent variable).

High school: Frequencies. Of the 24,779 weighted participants of HS, approximately four percent (4.3%) of the participants indicate using any form of cocaine, including powder, crack, or freebase, while 95.7% indicated not using any form of cocaine, including powder, crack or freebase. About ninety-four percent (94.3%) of the participants indicated family gives them love and support, whereas 5.7% have indicated not having family give them love and support. Table 11 presents the frequency of the participants.

Table 11

Frequency of Prevalence of Substance Use and Social Support Among HS Students

Items	Actual count	Weighted count	Percent: 95% CI
Have you used any form of cocaine, including powder, crack or freebase			
Yes	860	1112	4.3
No	16130	24922	95.7
Family give me love and support			
Yes	21699	23367	94.3
No	1292	1412	5.7

High School: Univariate Odds Ratio. The odds of using any form of cocaine, including powder, crack, or freebase among participants who have family that give them love and support is 0.115 (CI: 0.095, 0.140) times that of the odds among participants

without family who give them love and support. In other words, family support is associated with 88% lower odds of using any form of cocaine, including powder, crack, or freebase. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 12 presents the odds ratio.

High School: Multivariable or Adjusted Odds Ratio. Controlling for adults over 21 around participants who have used substance in the past for HS, the odds of family love and support among participants who indicated the used of any form of cocaine, including powder, crack or freebase is 0.115 times the odds among participants who indicate no used of any form of cocaine, including powder, crack or freebase. This suggests that the use of drugs is associated with 88.5% lower odds of family love and support. Table 12 presents the adjusted odds ratio.

Table 12

Univariate and Multivariable Odds Ratio for Assessing the Association Between Substance Use and Social Support Among HS Students

Items	Univariate odds ratio (95% CI)	Multivariable odds ratio (95% CI)
Dependent: Have you used any form of cocaine, including powder, crack or freebase		
Family give me love and support Yes vs. No	0.115 (0.095, 0.140)	0.115 (0.083, 0.160)

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Middle school: Frequency. Of the 18,693 weighted participants of MS, approximately one percent (1.4%) of the participants indicate during the past 30 days took a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescriptions, while 98.6% indicated during the past 30 days not a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescriptions. About ninety-seven percent (97.4%) of the participants indicated family gives them love and support, whereas 2.6% have indicated not having family give them love and support. Table 13 presents the frequency of the participants.

Table 13

Frequency of Prevalence of Substance use and Social Support Among MS Student

Items	Actual count	Weighted count	Percent: 95% CI
Family give me love and support			
Yes	12458	6273	97.4
No	435	169	2.6
During the past 30 days, did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescriptions	275	259	1.4
Yes	17212	18434	98.6
No			

Middle School: Univariate Odds Ratio. The odds of taking a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription during the past 30 days is 0.124 (CI: 0.084, 0.182) times that of the odds among participants who have family that give them love and support. In other

words, family love and support are associated with 88% lower odds of taking a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription during the past 30 days. Since the 95% confidence interval for the odds excludes one (1), the odds are statistically significant. Table 14 presents the odds ratio.

Middle School: Multivariable or Adjusted Odds Ratio. Controlling for adults over 21 around participants who have used substance in the past for MS, the odds of using prescription drugs among participants who indicated their family gives them love and support is 0.122 times the odds among participants who indicate their family did not give them love and support. This suggests that family love and support are associated with 87.8% lower odds of using prescription drugs. Table 14 presents the adjusted odds ratio.

Table 14

Univariate and Multivariable Odds Ratio for Assessing the Association Between Substance Use and Social Support Among MS Students

Items	Univariate odds ratio (95% CI)	Multivariable odds ratio (95% CI)
Dependent: During the past 30 days, did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescriptions		
Family give me love and support Yes vs. No	0.124 (0.084, 0.182)	0.122 (0.061, 0.244)

Note. The multivariable logistic regression adjusted for the following question: About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?

Summary

This chapter presents the result of the study. Using the MIYHS survey, the study assessed whether an association exists between mental health problems, substance use, and social support. Chapter 4 presents the participant's demographics, data collection, study results, and summary.

The study focuses on MS and HS students in all Maine's public schools and quasi-public schools and private schools that have about 60% of public funds. The majority of the participants were white. The original survey used stratified random sampling to select participants; this ensures that the participants are selected proportionate to the number of participants in Maine. Many questions in the MIYHS survey were taken from other national surveys, including the YRBS. The questionnaires were tested and retested and were found to be valid and reliable. To ensure that the design features are maintained during analysis, all estimates were weighted to reflect the distribution of the variables in the middle and high school student population. Multivariable logistic regression was used to assess whether an association exists between dependent and independent variables, and this regression analysis enables adjustment for possible confounders. The result shows that there is a statistically significant association between mental health and substance use, mental health and social support, substance use and social support.

Chapter 5 will provide the study overview, including the findings, limitations, recommendations, implications, and the potential for future research.

Chapter 5: Discussion, Conclusions, and Recommendations

Using secondary data from the MIYHS 2017, the purpose of my study was to determine (a) the relationship between mental health problems and substance use among youth who are MS or HS students, (b) the relationship between mental health problems and social support in youth who are MS or HS students, and (c) the relationship between substance use and social support in youth who are MS or HS students.

For my dissertation, I used a cross-sectional, retrospective design using data from the MIYHS. I adopted the same definitions used by the MIYHS. The definitions and supporting questions are listed below. Mental health problem was measured as a sad feeling or suicidal ideation for the past 2 weeks. Social support was measured by love and support from family as well as communication with family and friends. These are captured by the following two questions: (a) I have a family that gives me love and support (b); I have parents who are good at talking with me about things. In this survey, substance use was measured using the following question:

- During your life, how many times have you used any form of cocaine, including powder, crack, or freebase.

Chapter 5 provides an overview of the study, which includes the interpretation of findings, limitations of the study, recommendations, implications, and conclusions. I will also describe how the results of the study may help with positive social change. I used the MIYHS secondary data to obtain the result for the study. These data were collected by the Maine CDC using the MIYHS. Mental health problems are associated with substance use and social support.

Interpretation of Findings

The study findings are presented in the context of the literature review on mental health association with substance use and social support. The findings indicate that mental health has been a major public health concern that needed further examination among youths. In the current study, I focused on the association between mental health problems, social support, and substance use among MS and HS students. The analysis was conducted using SPSS version 25 for assessing the following questions:

Mental Health

- Item 14: (Have you ever seriously thought about killing yourself)?
- Item 18: (During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities)
- Item 20: (During the past 12 months, did you ever seriously consider attempting suicide).

Substance Abuse

- Item 32: (Have you ever used an electronic vapor product)?
- Item 45: (About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs)?
- Item 63: (During the past 30 days, how many times did you take a prescription drug (such as Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?

- Item 69: (During your life, how many times have you used any form of cocaine, including powder, crack or freebase),
- Item 85: (About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs)?

Social Support

- Item 107: (I have support from adults other than my parents).
- Item 108: (I have a family that gives me love and support).

Theoretical Framework

Chapter 2 described mental health problems and the association with substance use and social support among young adults. Two conceptual frameworks were used in this study: The relation regulation theory and self-medication theory. The self-medication theory helps to better understand factors that make individuals to use substance. This theory is based on the idea that an individual's use of drug is due to an untreated underlying problem, which could be an underlying mental health problems in the context of this study. The self-medication is in the context of regulation, where an individual's sense or understanding of regulation matches self-medication. The second conceptual framework is relational regulation theory, which helps to better understand social support with mental health problems. The idea behind RRT is that the association between social support and mental health problems originates from people regulating their emotions through shared activity and conversation.

The results from this study suggest that the use of any form of cocaine, including powder, crack, or freebase, is associated with higher odds of seriously considering attempting suicide in the past 12 months among youths. The results of this study also suggest that using an electronic vapor product is associated with higher odds of serious thought about killing oneself. These findings are consistent with previous literature that showed that substance use may be associated with a mental health problem such as suicide (Mason et al., 2014). The association between mental health and substance use can be explained using the self-medication theory. The self-medication theory proposes that the use of drug among youths can lead to mental health problems (Duncan, 1974a). Substance use is a problem worldwide, and it is a risk factor for many health problems. Considering the association between substance use and mental health, there is a need to implement programs and policies that discourage substance use among youths.

The current study finds that support from adults other than parents is associated with lower odds of feeling sad or hopeless almost every day for 2 weeks or more in the past 12 months among youths. These findings are consistent with previous literature that stated that providing social support in the family and the community helps decrease distress and promote hope (Holden et al., 2015). However, the current study focused on youth, whereas previous research focused on adulthood. The association between mental health and social support can be explained using RRT. This theory states that individuals improve their mental health through the diversity of relationships (John & Louise, 2013), and social support is an example of diversity of relationships.

In this current study, the results show that family support is associated with lower odds of substance use including any form of cocaine, including powder, crack, or freebase. The result of this study also suggests that family love and support are associated with lower odds of taking a prescription drug (e.g., Oxycodone, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription. These findings are consistent with previous literature that suggests that college students with no positive social networks are at higher risk for using a substance, including alcohol, tobacco, and marijuana. Support from spouse and family may be protective to prevent substance use (Mason et al., 2014; Studer et al., 2017). This study extends the body of knowledge about association between social support and substance use because the current study focused on youth, whereas previous studies focused on college students and older adults. The RRT and the self-medication theory may be used to explain the association between social support and substance use.

Limitations of the Study

This is a descriptive, correlational, cross-sectional study that measures the association between mental health with substance use and social support in youths between the ages of MS and HS years. The identification of association does not mean there is causation between the variables (Seema, 2018). This is a limitation because there might be other possible explanations for any observed association. For example, an unknown genetic factor may be associated with mental health, and the same genetic factor may associate with substance use. Therefore, the observed association might be due to an unknown confounding factor. To address the limitation of confounding factors,

the study controlled for covariates that may be associated with independent and dependent variables, for example, social, economic status, and family composition. There may be bias due to self-reporting because the participants may forget, deceive, or may not understand the questions, which may lead to underreporting or overreporting (Maine CDC, 2017). Nonetheless, studies have shown that surveys completed by young adults could provide valid and reliable information that is needed for research (Maine CDC, 2017).

Recommendations

Because the study used a cross-sectional, retrospective, correlational design, longitudinal and cohort studies are recommended for future study with the MS and HS population. The study focused on the analysis of the MS and HS students' data from the MIYHS. The study was focused on MS and HS students in Maine. A future cross-sectional study with other states is recommended to compare the study results. The literature review showed that mental health problems associated with social support and substance use was reported in different countries and states, such as American Indians from the Eastern Tribe (Ni et al., 2017), Oru camp near Ago-Iwoye in Ogun state (Amosu et al., 2016).

Based on the study results, mental health problems are associated with substance use and social support among MS and HS students. It is recommended that early social support may help prevent mental health problems in adulthood (Holden et al., 2015). It is also recommended that practitioners develop focused age-specific interventions for

students at risk for mental health conditions secondary to drug use and to plan prevention programs for school-aged youths.

Implications

The study has the potential to bring about positive social change by using the result of the analysis to help practitioners develop focused age-specific interventions for students at risk of mental health conditions secondary to drug use and to plan prevention programs for school-aged youths. Mental health problems and substance use are associated with social support. Therefore, individuals who have compromised social support such as family and friends may experience the consequence of substance use that may affect their well-being (Staton et al., 2007). The information from this study will add to the existing body of knowledge on how the prevention of substance use and the promotion of social support could improve mental health outcomes and promote positive social change.

By identifying mental health problems early in a young person's life, intervention may be implemented early, thus helping the youth with mental health problems become more productive members of the society (Costello, 2016), and thereby promoting positive social change. According to the University of Minnesota (2016), social support can enhance the quality of an individual's life by providing a buffer in times of crisis. The information from this study could help in revising and establishing programs and using strategies that reflect community needs and monitoring outcomes. The results could be used to identify the strengths and challenges facing young people in society (MIYHS, 2017). Early intervention will help the youth live a more productive life and avert future

negative effects of mental health problems, including the cost of hospitalization and youth inflicting harm on themselves (Costello, 2016).

Conclusions

Previous studies have shown an association between mental health problems, social support, and substance use. Individuals who have compromised social support such as family and friends may experience the consequence of substance use that may affect their well-being. However, this study showed that identification of mental health problems early in a young person's life, intervention may be implemented early to help youth become more productive in society. Findings from the study showed that lack of social support might lead to substance use and affect the well-being of MS and HS youth. Future research in a different state is needed in validating the finding of the study and more research on mental health problems associated with substance use and social support should be conducted in the future.

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Appendix: Maine Integrated Youth Health Survey

MIYHS Maine Integrated Youth Health Survey
Maine Department of Health and Human Services
Maine Department of Education

HS-A

2017 High School
Maine Integrated Youth Health Survey

This survey is about your health behavior and things that affect it. It will tell us what you and other students do that may affect your health. About 96,000 students in Maine are being asked to take this survey. The answers you give will be used to create better health education and programs for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

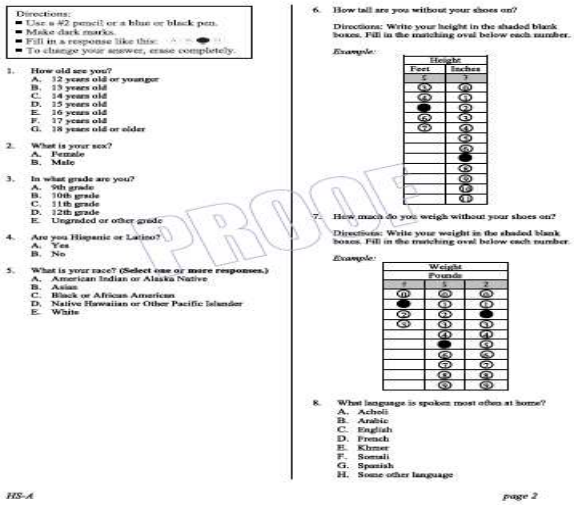
You may choose to take the survey or not take it. Your choice will not affect your grade in this class. There is some risk that some questions may make you feel uncomfortable. If you are not comfortable answering a question, just leave it blank. You can stop answering questions at any time you want. There is no penalty for not completing the survey. It should not take you longer than this class period.

The benefit to you in taking this survey is that your school and community may be better able to create programs that help you stay healthy.

Some questions ask about your background such as your race, age and gender. These will be used only to describe the types of students completing the survey. No answers will be used to find out your name. No names will ever be reported. The survey is research. This means that we will use your answers to help us learn about Maine students in general.

Be sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of your teacher.

If you have questions about the survey, your teacher will have contact names for someone to e-mail or call.



Directions:
- Use a #2 pencil or a blue or black pen.
- Make dark marks.
- Fill in a response like this: ● (not like ✓ or ✗)
- To change your answer, erase completely.

1. How old are you?
   A. 12 years old or younger
   B. 13 years old
   C. 14 years old
   D. 15 years old
   E. 16 years old
   F. 17 years old
   G. 18 years old or older

2. What is your sex?
   A. Female
   B. Male

3. In what grade are you?
   A. 9th grade
   B. 10th grade
   C. 11th grade
   D. 12th grade
   E. Ungraded or other grade

4. Are you Hispanic or Latino?
   A. Yes
   B. No

5. What is your race? (Select one or more responses.)
   A. American Indian or Alaska Native
   B. Asian
   C. Black or African American
   D. Native Hawaiian or Other Pacific Islander
   E. White

6. How tall are you without your shoes on?

   Directions: Write your height in the shaded blank boxes. Fill in the matching oval below each number.

   Example:

Height	
Feet	Inches
5	7

7. How much do you weigh without your shoes on?

   Directions: Write your weight in the shaded blank boxes. Fill in the matching oval below each number.

   Example:

Weight		
Pounds		
1	5	0

8. What language is spoken most often at home?
   A. Acholi
   B. Arabic
   C. English
   D. French
   E. Khmer
   F. Somali
   G. Spanish
   H. Some other language

HS-A *page 2*

9. Which of the following best describes you?
   A. Heterosexual (straight)
   B. Gay or lesbian
   C. Bisexual
   D. Not sure

10. Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?
   A. No, I am not transgender
   B. Yes, I am transgender
   C. I am not sure if I am transgender
   D. I do not know what this question is asking

11. During the past 30 days, where did you usually sleep?
   A. In my parent's or guardian's home
   B. In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing
   C. In a shelter or emergency housing
   D. In a motel or hotel
   E. In a car, park, campground, or other public place
   F. I do not have a usual place to sleep
   G. Somewhere else

The next 5 questions ask about safety.

12. During the past 30 days, how many times did you **ride** in a car or other vehicle driven by someone who had been drinking alcohol?
   A. 0 times
   B. 1 time
   C. 2 or 3 times
   D. 4 or 5 times
   E. 6 or more times

13. During the past 30 days, how many times did you **ride** in a car or other vehicle driven by someone who had been taking illegal drugs such as marijuana, cocaine, heroin, or LSD?
   A. 0 times
   B. 1 time
   C. 2 or 3 times
   D. 4 or 5 times
   E. 6 or more times

14. Do you agree or disagree with the following statement? "I feel safe at my school."
   A. Strongly agree
   B. Agree
   C. Disagree
   D. Strongly disagree

15. Have you ever been forced (physically or otherwise) to have sexual contact? (Select only **one** response.)
   A. Yes, this happened to me **both** before and during the past year
   B. Yes, this happened to me **only** before the past year
   C. Yes, this happened to me **only** during the past year
   D. No, I have **never** been forced to have sexual contact

16. Has violence in your home, or the threat of violence, ever made you want to leave your home, even just for a short while?
   A. Yes
   B. No

The next question asks about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

17. During the past 12 months, have you ever been bullied **on school property**?
   A. Yes
   B. No

The next 3 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide or killing themselves.

18. During the past 12 months, did you ever feel so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?
   A. Yes
   B. No

19. During the past 12 months, when you felt sad or hopeless, from whom did you get help? (Select only **one** response.)
   A. I did not feel sad or hopeless
   B. I did feel sad or hopeless but did not seek help
   C. Parent or other adult relative
   D. Teacher or other school staff
   E. Other adults
   F. Friends
   G. None of the above

20. During the past 12 months, did you ever **seriously** consider attempting suicide?
   A. Yes
   B. No

The next 15 questions ask about tobacco use.

21. During the past 30 days, on how many days did you smoke cigarettes?
   A. 0 days
   B. 1 or 2 days
   C. 3 to 5 days
   D. 6 to 9 days
   E. 10 to 19 days
   F. 20 to 29 days
   G. All 30 days

22. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, Copenhagen, Camel Snus, Marlboro Snus, General Snus, Ariva, Stonewall, or Camel Orbs? (Do not count any electronic vapor products.)
   A. 0 days
   B. 1 or 2 days
   C. 3 to 5 days
   D. 6 to 9 days
   E. 10 to 19 days
   F. 20 to 29 days
   G. All 30 days

23. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars**?
   A. 0 days
   B. 1 or 2 days
   C. 3 to 5 days
   D. 6 to 9 days
   E. 10 to 19 days
   F. 20 to 29 days
   G. All 30 days

24. During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?
   A. 0 days
   B. 1 day
   C. 2 days
   D. 3 days
   E. 4 days
   F. 5 days
   G. 6 days
   H. 7 days

25. During the past 12 months, were you taught in any of your classes about the dangers of tobacco use?
   A. Yes
   B. No
   C. Not sure

26. How wrong do your parents feel it would be for you to smoke cigarettes?
   A. Very wrong
   B. Wrong
   C. A little bit wrong
   D. Not wrong at all

27. How much do you think people risk harming themselves (physically or in other ways) if they smoke one or more packs of cigarettes per day?
   A. No risk
   B. Slight risk
   C. Moderate risk
   D. Great risk

28. Do you think that you will try a cigarette soon?
   A. I definitely will
   B. I probably will
   C. I probably will not
   D. I definitely will not

29. Do you think you will smoke a cigarette at any time during the next year?
   A. I definitely will
   B. I probably will
   C. I probably will not
   D. I definitely will not

30. When you go to a supermarket, grocery store, convenience store or gas station mini-mart, how often do you see tobacco industry advertisements on signs or poster boards?
   A. A lot
   B. Sometimes
   C. Hardly ever
   D. Never
   E. I never go to a supermarket, grocery store, convenience store or mini-mart
   F. I don't know/I'm not sure

31. If one of your best friends offered you a cigarette, would you smoke it?
   A. Definitely yes
   B. Probably yes
   C. Probably not
   D. Definitely not

32. Think of your four best friends. How many in the past year have smoked cigarettes?
A. None of my friends
B. 1 of my friends
C. 2 of my friends
D. 3 of my friends
E. 4 of my friends

33. How wrong do your friends feel it would be for you to smoke cigarettes?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong **at all**

34. During the past 7 days, on how many days were you in the same car with someone who was smoking cigarettes?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

35. Besides yourself, does anyone who lives in your home smoke cigarettes now?
A. Yes
B. No

The next 17 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

36. During your life, on how many days have you had at least one drink of alcohol?
A. 0 days
B. 1 or 2 days
C. 3 to 9 days
D. 10 to 19 days
E. 20 to 39 days
F. 40 to 99 days
G. 100 or more days

37. How old were you when you had your **first** drink of alcohol other than a few sips?
A. I have never had a drink of alcohol other than a few sips
B. 8 years old or younger
C. 9 or 10 years old
D. 11 or 12 years old
E. 13 or 14 years old
F. 15 or 16 years old
G. 17 years old or older

38. During the past 30 days, on how many days did you have at least one drink of alcohol?
A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

39. During the past 30 days, what is the largest number of alcoholic drinks you had in a row?
A. I did not drink alcohol during the past 30 days
B. 1 or 2 drinks
C. 3 drinks
D. 4 drinks
E. 5 drinks
F. 6 or 7 drinks
G. 8 or 9 drinks
H. 10 or more drinks

40. During the past 30 days, how did you **usually** get the alcohol you drank?
A. I did not drink alcohol during the past 30 days
B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
C. I bought it at a restaurant, bar, or club
D. I bought it at a public event such as a concert or sporting event
E. I gave someone else money to buy it for me
F. Someone gave it to me
G. I took it from a store or family member
H. I got it some other way

41. During the past 30 days, on how many days did you have at least one drink of alcohol on **school property**?
A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

42. If you wanted to get some alcohol, how easy would it be for you to get some?
A. Very hard
B. Sort of hard
C. Sort of easy
D. Very easy

43. If you drank some alcohol **without** your parents' permission, would you be caught by your parents?
A. Definitely yes
B. Probably yes
C. Probably not
D. Definitely not

44. If a kid drank some alcohol in your neighborhood, would he or she be caught by the police?
A. Definitely yes
B. Probably yes
C. Probably not
D. Definitely not

45. How much do you think people risk harming themselves (physically or in other ways) if they have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

46. How much do you think people risk harming themselves (physically or in other ways) if they have **5 or more** drinks of an alcoholic beverage in a row once or twice a week?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

47. How wrong would most adults over 21 in your neighborhood think it is for kids your age to drink alcohol?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

48. How do you feel about someone your age having **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Strongly approve
B. Approve
C. Neither approve nor disapprove
D. Disapprove
E. Strongly disapprove

49. Think of your four best friends. How many in the past year have tried alcohol when their parents didn't know about it?
A. None of my friends
B. 1 of my friends
C. 2 of my friends
D. 3 of my friends
E. 4 of my friends

50. How wrong do your friends feel it would be for you to have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

51. How wrong do your parents feel it would be for you to have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

52. How wrong do you think it is for someone your age to have **5 or more** drinks of alcohol once or twice each week?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

The next 11 questions ask about marijuana use. Marijuana is also called grass or pot.

53. During your life, how many times have you used marijuana?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 to 99 times
    G. 100 or more times

54. How old were you when you tried marijuana for the first time?
    A. I have never tried marijuana
    B. 8 years old or younger
    C. 9 or 10 years old
    D. 11 or 12 years old
    E. 13 or 14 years old
    F. 15 or 16 years old
    G. 17 years old or older

55. During the past 30 days, how many times did you use marijuana?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

56. If you wanted to get some marijuana, how easy would it be for you to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

57. How wrong do your parents feel it would be for you to smoke marijuana?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

58. How much do you think people risk harming themselves (physically or in other ways) if they smoke marijuana once or twice a week?
    A. No risk
    B. Slight risk
    C. Moderate risk
    D. Great risk

59. How wrong do your friends feel it would be for you to smoke marijuana?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

60. If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?
    A. Definitely yes
    B. Probably yes
    C. Probably not
    D. Definitely not

61. How wrong do you think it is for someone your age to smoke marijuana?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

62. During the past 30 days, how many times did you use marijuana **on school property**?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

63. Think of your four best friends. How many in the past year have used marijuana?
    A. None of my friends
    B. 1 of my friends
    C. 2 of my friends
    D. 3 of my friends
    E. 4 of my friends

The next 23 questions ask about other drugs.

64. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

65. During the past 30 days, how many times did you sniff glue, breathe the contents of aerosol spray cans, or inhale any paints or sprays to get high?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

66. If you wanted to get **prescription drugs** (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) that were not prescribed to you, how easy would it be to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

67. During your life, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

68. During the past 30 days, how many times did you take a **prescription drug** (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

69. During your life, how many times have you used **any** form of cocaine, including powder, crack, or freebase?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

70. During your life, how many times have you used **heroin** (also called smack, junk, or China White)?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

71. During your life, how many times have you used **methamphetamines** (also called meth, speed, crystal, crank, or ice)?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

72. During your life, how many times have you used **ecstasy** (also called MDMA)?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

73. During your life, how many times have you taken **steroid pills or shots** without a doctor's prescription?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

74. During your life, how many times have you used **hallucinogenic drugs**, such as LSD, acid, PCP, angel dust, mescaline, or mushrooms?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

75. How many times in the past year (12 months) have you been drunk or high **at school**?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

76. How many times in the past year (12 months) have you sold illegal drugs?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

77. During the past 12 months, has anyone offered, sold, or given you an illegal drug **on school property**?
A. Yes
B. No

78. If you wanted to get a drug like cocaine, LSD, or amphetamines, how easy would it be for you to get some?
A. Very hard
B. Sort of hard
C. Sort of easy
D. Very easy

79. Do you agree or disagree with the following statement? "My family has clear rules about alcohol and drug use."
A. Strongly agree
B. Agree
C. Disagree
D. Strongly disagree

80. How wrong do your parents feel it would be for you to take a prescription drug not prescribed to you?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong **at all**

81. During the past 12 months, do you recall hearing, reading or watching an advertisement about the prevention of substance use?
A. Yes
B. No
C. Not sure

82. How much do you think people risk harming themselves (physically or in other ways) if they take a prescription drug that is not prescribed to them?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

83. How wrong do your friends feel it would be for you to take a prescription drug not prescribed to you?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

84. Think of your four best friends. How many in the past year have used LSD, cocaine, amphetamines, or other illegal drugs?
A. None of my friends
B. 1 of my friends
C. 2 of my friends
D. 3 of my friends
E. 4 of my friends

85. About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?
A. None
B. 1 adult
C. 2 adults
D. 3 or 4 adults
E. 5 or more adults

86. During your life, how many times have you used **synthetic marijuana** (also called K2, Spice, fake weed, King Kong, Yucatan Fire, Skunk, or Moon Rocks)?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

The next question asks about sexual intercourse.

87. Have you ever had sexual intercourse?
A. Yes
B. No

The next 6 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

88. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
A. I did not drink 100% fruit juice during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

89. During the past 7 days, how many times did you eat fruit? (Do **not** count fruit juice.)
A. I did not eat fruit during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

90. During the past 7 days, how many times did you eat **vegetables**, such as carrots, green salad, corn, or green beans? (Do **not** count french fries or other fried potatoes.)
A. I did not eat vegetables during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

91. During the past 7 days, how many times did you drink a **can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage** such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D? (Do **not** count diet soda, other diet drinks, or 100% fruit juice.)
A. I did not drink soda, sports drinks, energy drinks, or other sugar-sweetened beverages during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

92. What kind of milk do you **usually** drink? (Select only **one** response.)
A. I do not drink milk
B. Whole milk
C. 2% or reduced fat milk
D. 1% or low fat milk
E. Fat-free, skim, or non-fat milk
F. Chocolate or flavored milk
G. Some other type of milk
H. Not sure

93. During the past 7 days, on how many days did you eat dinner **at home** with **at least one of your parents/guardians**?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

The next 3 questions ask about physical activity.

94. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

95. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days

96. Do any of your classroom teachers provide short physical activity breaks during regular class time? (Do not count your physical education teacher.)
A. Yes
B. No

The next 8 questions ask about your school, your family, your community, and support that you get.

97. During an average week, how many hours do you spend in clubs or organizations (other than sports) outside of regular school hours?
    A. 0 hours
    B. 1 hour
    C. 2 hours
    D. 3 to 5 hours
    E. 6 to 10 hours
    F. 11 or more hours

98. Do you agree or disagree that at least one of your teachers really cares and gives you help and support when you need it?
    A. Strongly agree
    B. Agree
    C. Not sure
    D. Disagree
    E. Strongly disagree

99. How often does your school enforce rules fairly?
    A. Never
    B. Rarely
    C. Sometimes
    D. Most of the time
    E. Always

100. How often do adults in your school address conflict, negative language, and bullying in positive ways to help students?
    A. Never
    B. Rarely
    C. Sometimes
    D. Most of the time
    E. Always

101. How often does one of your parents talk with you about what you are doing in school?
    A. About every day
    B. About once or twice a week
    C. About once or twice a month
    D. Less than once a month
    E. Never

102. How often is the following statement true for you? "When I am not at home, one of my parents or guardians knows where I am and whom I am with."
    A. Never
    B. Rarely
    C. Sometimes
    D. Most of the time
    E. Always

103. Do you agree or disagree that in your community you feel like you matter to people?
    A. Strongly agree
    B. Agree
    C. Not sure
    D. Disagree
    E. Strongly disagree

104. Please tell us HOW MANY of the following six things have EVER happened to you (Add up how many ever happened to you):
    - Your parents/guardians got divorced or separated
    - A parent/guardian died
    - A parent/guardian was in jail or prison
    - You lived with an adult who had a mental illness
    - Your parent or another adult you lived with often swore at you, insulted you, put you down, or humiliated you
    - You were physically hurt by an adult in your home

    A. 0, none of these things have ever happened to me
    B. 1
    C. 2
    D. 3
    E. 4
    F. 5
    G. 6

The next 4 statements are about positive things that you might have in yourself, your family, friends, neighborhood, school, and community. For each item that describes you now or within the past 3 months, check if the item is true.

105. I have parent(s) or guardian(s) who try to help me succeed.
    A. Not at all or rarely
    B. Somewhat or sometimes
    C. Very or often
    D. Extremely or almost always

106. I have a school that cares about kids and encourages them.
    A. Not at all or rarely
    B. Somewhat or sometimes
    C. Very or often
    D. Extremely or almost always

107. I have support from adults other than my parents.
    A. Not at all or rarely
    B. Somewhat or sometimes
    C. Very or often
    D. Extremely or almost always

108. I have a family that gives me love and support.
    A. Not at all or rarely
    B. Somewhat or sometimes
    C. Very or often
    D. Extremely or almost always

The next 2 questions ask about gambling.

109. In your lifetime, how many times have you gambled (bet) with money or something else of value? (Include if you bet at a casino, race track, or online, bought lottery tickets, bet on a sports team, or played cards or other games for money or things.)
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

110. Has the money or time that you spent on gambling led to financial problems or problems in your family, work, school or personal life?
    A. I have never gambled
    B. Yes
    C. No

This is the end of the survey.
Thank you very much for your help.

The Maine Integrated Youth Health Survey is a collaborative effort of the Maine Department of Education and the Maine Department of Health and Human Services (Maine Center for Disease Control and Prevention & Substance Abuse and Mental Health Services).

MIYHS Maine Integrated Youth Health Survey
Maine Department of Health and Human Services
Maine Department of Education

MS-A

2017 Middle School 7th/8th Grade
Maine Integrated Youth Health Survey

This survey is about your health behavior and things that affect it. It will tell us what you and other students do that may affect your health. About 96,000 students in Maine are being asked to take this survey. The answers you give will be used to create better health education and programs for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

You may choose to take the survey or not take it. Your choice will not affect your grade in this class. There is some risk that some questions may make you feel uncomfortable. If you are not comfortable answering a question, just leave it blank. You can stop answering questions at any time you want.

There is no penalty for not completing the survey. It should not take you longer than this class period.

The benefit to you in taking this survey is that your school and community may be better able to create programs that help you stay healthy.

Some questions ask about your background such as your race, age and gender. These will be used only to describe the types of students completing the survey. No answers will be used to find out your name. No names will ever be reported. The survey is research. This means that we will use your answers to help us learn about Maine students in general.

Be sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of your teacher.

If you have questions about the survey, your teacher will have contact names for someone to e-mail or call.

THANK YOU very much for your help!

Directions:
- Use a #2 pencil or a blue or black pen.
- Make dark marks.
- Fill in a response like this: ● (not ✓ or ✗)
- To change your answer, erase your old answer completely.

1. How old are you?
   A. 10 years old or younger
   B. 11 years old
   C. 12 years old
   D. 13 years old
   E. 14 years old
   F. 15 years old
   G. 16 years old or older

2. What is your sex?
   A. Female
   B. Male

3. In what grade are you?
   A. 6th grade
   B. 7th grade
   C. 8th grade
   D. Ungraded or other grade

4. Are you Hispanic or Latino?
   A. Yes
   B. No

5. What is your race? **(Select one or more responses.)**
   A. American Indian or Alaska Native
   B. Asian
   C. Black or African American
   D. Native Hawaiian or Other Pacific Islander
   E. White

6. How tall are you without your shoes on?

   Directions: Write your height in the shaded blank boxes. Fill in the matching oval below each number.

Example:

Height	
Feet	Inches
5	3
⓪	⓪
④	①
●	②
⑥	●
⑦	④
	⑤
	⑥
	⑦
	⑧
	⑨

7. How much do you weigh without your shoes on?

   Directions: Write your weight in the shaded blank boxes. Fill in the matching oval below each number.

Example:

Weight		
Pounds		
1	3	5
⓪	⓪	⓪
●	①	①
②	②	②
③	●	③
	④	④
	⑤	●
	⑥	⑥
	⑦	⑦
	⑧	⑧
	⑨	⑨

8. What language is spoken most often at home?
   A. Acholi
   B. Arabic
   C. English
   D. French
   E. Khmer
   F. Somali
   G. Spanish
   H. Some other language

9. During the past 30 days, where did you usually sleep?
   A. In my parent's or guardian's home
   B. In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing
   C. In a shelter or emergency housing
   D. In a motel or hotel
   E. In a car, park, campground, or other public place
   F. I do not have a usual place to sleep
   G. Somewhere else

The next 2 questions ask about safety.

10. Have you ever ridden in a car or other vehicle driven by someone who had been drinking alcohol?
    A. Yes
    B. No

11. Have you ever ridden in a car or other vehicle driven by someone who had been taking illegal drugs such as marijuana, cocaine, heroin, or LSD?
    A. Yes
    B. No

The next question asks about violence-related behaviors.

12. Do you agree or disagree with the following statement? "I feel safe at my school."
    A. Strongly agree
    B. Agree
    C. Disagree
    D. Strongly disagree

The next question asks about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

13. Have you ever been bullied **on school property**?
    A. Yes
    B. No

The next question asks about attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide or killing themselves.

14. Have you ever **seriously** thought about killing yourself?
    A. Yes
    B. No

The next 17 questions ask about tobacco use.

15. During the past 30 days, on how many days did you smoke cigarettes?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

16. How old were you when you smoked a whole cigarette for the first time?
    A. I have never smoked a whole cigarette
    B. 8 years old or younger
    C. 9 years old
    D. 10 years old
    E. 11 years old
    F. 12 years old
    G. 13 years old or older

17. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, Copenhagen, Camel Snus, Marlboro Snus, General Snus, Ariva, Stonewall, or Camel Orbs? (Do not count any electronic vapor products.)
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

18. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars**?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

19. During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?
    A. 0 days
    B. 1 day
    C. 2 days
    D. 3 days
    E. 4 days
    F. 5 days
    G. 6 days
    H. 7 days

20. During the past 12 months, were you taught in any of your classes about the dangers of tobacco use?
    A. Yes
    B. No
    C. Not sure

21. How wrong do your parents feel it would be for you to smoke cigarettes?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

22. How much do you think people risk harming themselves (physically or in other ways) if they smoke one or more packs of cigarettes per day?
    A. No risk
    B. Slight risk
    C. Moderate risk
    D. Great risk

23. If you wanted to get some cigarettes, how easy would it be for you to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

24. How much do you think people risk harming themselves (physically or in other ways) if they are exposed to other people's cigarette smoke?
    A. No risk
    B. Slight risk
    C. Moderate risk
    D. Great risk

25. Do you think that you will try a cigarette soon?
    A. I definitely will
    B. I probably will
    C. I probably will not
    D. I definitely will not

26. Do you think you will smoke a cigarette at any time during the next year?
    A. I definitely will
    B. I probably will
    C. I probably will not
    D. I definitely will not

27. If one of your best friends offered you a cigarette, would you smoke it?
    A. Definitely yes
    B. Probably yes
    C. Probably not
    D. Definitely not

28. How wrong do your friends feel it would be for you to smoke cigarettes?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

29. During the past 7 days, on how many days were you in the same car with someone who was smoking cigarettes?
    A. 0 days
    B. 1 day
    C. 2 days
    D. 3 days
    E. 4 days
    F. 5 days
    G. 6 days
    H. 7 days

30. Besides yourself, does anyone who lives in your home smoke cigarettes now?
    A. Yes
    B. No

31. How wrong do you think it is for someone your age to smoke cigarettes?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

The next 3 questions ask about electronic vapor products, such as blu, NJOY, or Starbuzz. Electronic vapor products include e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pipes, e-hookahs, and hookah pens.

32. Have you ever used an electronic vapor product?
    A. Yes
    B. No

33. During the past 30 days, on how many days did you use an electronic vapor product?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

34. The last time you used an electronic vapor product, what was in the vapor you inhaled?
    A. I have never used an electronic vapor product
    B. Nicotine
    C. Marijuana or hash oil
    D. Just flavoring
    E. Not sure

The next 14 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor, such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

35. Have you ever had a drink of alcohol, other than a few sips?
    A. Yes
    B. No

36. How old were you when you had your first drink of alcohol **other** than a few sips?
A. I have never had a drink of alcohol other than a few sips
B. 8 years old or younger
C. 9 years old
D. 10 years old
E. 11 years old
F. 12 years old
G. 13 years old or older

37. During the past 30 days, on how many days did you have at least one drink of alcohol?
A. 0 days
B. 1 or 2 days
C. 3 to 5 days
D. 6 to 9 days
E. 10 to 19 days
F. 20 to 29 days
G. All 30 days

38. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
A. 0 days
B. 1 day
C. 2 days
D. 3 to 5 days
E. 6 to 9 days
F. 10 to 19 days
G. 20 or more days

39. During the past 30 days, how did you **usually** get the alcohol you drank?
A. I did not drink alcohol during the past 30 days
B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
C. I bought it at a restaurant, bar, or club
D. I bought it at a public event such as a concert or sporting event
E. I gave someone else money to buy it for me
F. Someone gave it to me
G. I took it from a store or family member
H. I got it some other way

40. If you wanted to get some alcohol, how easy would it be for you to get some?
A. Very hard
B. Sort of hard
C. Sort of easy
D. Very easy

41. If you drank some alcohol without your parents' permission, would you be caught by your parents?
A. Definitely yes
B. Probably yes
C. Probably not
D. Definitely not

42. How much do you think people risk harming themselves (physically or in other ways) if they have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

43. How much do you think people risk harming themselves (physically or in other ways) if they have **5 or more** drinks of an alcoholic beverage in a row once or twice a week?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

44. If a kid drank some alcohol in your neighborhood, would he or she be caught by the police?
A. Definitely yes
B. Probably yes
C. Probably not
D. Definitely not

45. How do you feel about someone your age having **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Strongly approve
B. Approve
C. Neither approve nor disapprove
D. Disapprove
E. Strongly disapprove

46. How wrong do your parents feel it would be for you to have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

47. Think of your four best friends. How many in the past year have tried alcohol when their parents didn't know about it?
A. None of my friends
B. 1 of my friends
C. 2 of my friends
D. 3 of my friends
E. 4 of my friends

48. How wrong do your friends feel it would be for you to have **1 or 2** drinks of an alcoholic beverage nearly every day?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

The next 10 questions ask about marijuana use. Marijuana is also called grass or pot.

49. Have you ever used marijuana?
A. Yes
B. No

50. How old were you when you tried marijuana for the first time?
A. I have never tried marijuana
B. 8 years old or younger
C. 9 years old
D. 10 years old
E. 11 years old
F. 12 years old
G. 13 years old or older

51. During the past 30 days, how many times did you use marijuana?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

52. If you wanted to get some marijuana, how easy would it be for you to get some?
A. Very hard
B. Sort of hard
C. Sort of easy
D. Very easy

53. How wrong do your parents feel it would be for you to smoke marijuana?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

54. How much do you think people risk harming themselves (physically or in other ways) if they smoke marijuana once or twice a week?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

55. How wrong do your friends feel it would be for you to smoke marijuana?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

56. If a kid smoked marijuana in your neighborhood, would he or she be caught by the police?
A. Definitely yes
B. Probably yes
C. Probably not
D. Definitely not

57. How wrong do you think it is for someone your age to smoke marijuana?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

58. Think of your four best friends. How many in the past year have used marijuana?
A. None of my friends
B. 1 of my friends
C. 2 of my friends
D. 3 of my friends
E. 4 of my friends

The next 11 questions ask about other drugs.

59. Have you ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high?
A. Yes
B. No

60. During the past 30 days, how many times did you sniff glue, breathe the contents of spray cans, or inhale any paints or sprays to get high?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

61. If you wanted to get **prescription drugs** (such as OxyContin, Percocet, Vicodin, codeine, **Adderall**, Ritalin, or **Xanax**) that were not prescribed to you, how easy would it be to get some?
A. Very hard
B. Sort of hard
C. Sort of easy
D. Very easy

62. During your life, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs **such as** codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

63. During the past 30 days, how many **times** did you take a **prescription drug** (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

64. How wrong do your parents feel it would be for you to take prescription drugs not prescribed to you?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

65. How wrong do your friends feel it would be for you to take prescription drugs not prescribed to you?
A. Very wrong
B. Wrong
C. A little bit wrong
D. Not wrong at all

66. Do you agree or disagree with the following statement? "My family has clear rules about alcohol and drug use."
A. Strongly agree
B. Agree
C. Disagree
D. Strongly disagree

67. During the past 12 months, do you recall hearing, reading or watching an advertisement about the prevention of substance use?
A. Yes
B. No
C. Not sure

68. How much do you think people risk harming themselves (physically or in other ways) if they take prescription drugs that are not prescribed to them?
A. No risk
B. Slight risk
C. Moderate risk
D. Great risk

69. How many times in the past year (12 months) have you been drunk or high **at school**?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

The next question asks about sexual intercourse.

70. Have you ever had sexual intercourse?
A. Yes
B. No

The next 4 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

71. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool•Aid, sports drinks, or other fruit-flavored drinks.)
A. I did not drink 100% fruit juice during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

72. During the past 7 days, how many times did you eat **fruit**? (Do **not** count fruit juice.)
A. I did not eat fruit during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

73. During the past 7 days, how many times did you eat **vegetables,** such as carrots, green salad, corn, or green beans? (Do **not** count french fries or other fried potatoes.)
A. I did not eat vegetables during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

74. During the past 7 days, how many times did you drink **a can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage** such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D? (Do **not** count diet soda, other diet drinks, or 100% fruit juice.)
A. I did not drink soda, sports drinks, energy drinks, or other sugar•sweetened beverages during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

The next 2 questions ask about physical activity.

75. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

76. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days

The next 4 questions ask about your school, your family, your community, and support that you get.

77. Do you agree or disagree that at least one of your teachers really cares and gives you help and support when you need it?
A. Strongly agree
B. Agree
C. Not sure
D. Disagree
E. Strongly disagree

78. How often does one of your parents talk with you about what you are doing in school?
A. About every day
B. About once or twice a week
C. About once or twice a month
D. Less than once a month
E. Never

79. I have a family that gives me love and support.
A. Not at all or rarely
B. Somewhat or sometimes
C. Very or often
D. Extremely or almost always

80. Do you agree or disagree that in your community you feel like you matter to people?
A. Strongly agree
B. Agree
C. Not sure
D. Disagree
E. Strongly disagree

This is the end of the survey.
Thank you very much for your help.

The Maine Integrated Youth Health Survey is a collaborative effort of the Maine Department of Education and the Maine Department of Health and Human Services (Maine Center for Disease Control and Prevention & Substance Abuse and Mental Health Services).

MIYHS Maine Integrated Youth Health Survey
Maine Department of Health and Human Services
Maine Department of Education

MS-D

2017 Middle School 7th/8th Grade
Maine Integrated Youth Health Survey

This survey is about your health behavior and things that affect it. It will tell us what you and other students do that may affect your health. About 96,000 students in Maine are being asked to take this survey. The answers you give will be used to create better health education and programs for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

You may choose to take the survey or not take it. Your choice will not affect your grade in this class. There is some risk that some questions may make you feel uncomfortable. If you are not comfortable answering a question, just leave it blank. You can stop answering questions at any time you want.

There is no penalty for not completing the survey. It should not take you longer than this class period.

The benefit to you in taking this survey is that your school and community may be better able to create programs that help you stay healthy.

Some questions ask about your background such as your race, age and gender. These will be used only to describe the types of students completing the survey. No answers will be used to find out your name. No names will ever be reported. The survey is research. This means that we will use your answers to help us learn about Maine students in general.

Be sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of your teacher.

If you have questions about the survey, your teacher will have contact names for someone to e-mail or call.

THANK YOU very much for your help!

Directions:
- Use a #2 pencil or a blue or black pen.
- Make dark marks.
- Fill in a response like this: ●
- To change your answer, erase your old answer completely.

1. How old are you?
   A. 10 years old or younger
   B. 11 years old
   C. 12 years old
   D. 13 years old
   E. 14 years old
   F. 15 years old
   G. 16 years old or older

2. What is your sex?
   A. Female
   B. Male

3. In what grade are you?
   A. 6th grade
   B. 7th grade
   C. 8th grade
   D. Ungraded or other grade

4. Are you Hispanic or Latino?
   A. Yes
   B. No

5. What is your race? **(Select one or more responses.)**
   A. American Indian or Alaska Native
   B. Asian
   C. Black or African American
   D. Native Hawaiian or Other Pacific Islander
   E. White

6. What language is spoken most often at home?
   A. Acholi
   B. Arabic
   C. English
   D. French
   E. Khmer
   F. Somali
   G. Spanish
   H. Some other language

7. During the past 30 days, where did you usually sleep?
   A. In my parent's or guardian's home
   B. In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing
   C. In a shelter or emergency housing
   D. In a motel or hotel
   E. In a car, park, campground, or other public place
   F. I do not have a usual place to sleep
   G. Somewhere else

The next question asks about safety.

8. How often do you wear a seat belt when **riding** in a car?
   A. Never
   B. Rarely
   C. Sometimes
   D. Most of the time
   E. Always

The next 2 questions ask about violence-related behaviors.

9. Has violence in your home, or the threat of violence, ever made you want to leave your home, even just for a short while?
   A. Yes
   B. No

10. Do you agree or disagree with the following statement? "I feel safe at my school."
    A. Strongly agree
    B. Agree
    C. Disagree
    D. Strongly disagree

The next question asks about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.

11. Have you ever been bullied **on school property**?
    A. Yes
    B. No

The next 3 questions ask about sad feelings and attempted suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide or killing themselves.

12. Have you ever felt so sad or hopeless almost every day for **two weeks or more in a row** that you stopped doing some usual activities?
    A. Yes
    B. No

13. When you have felt sad or hopeless, from whom did you get help? (Select only **one** response.)
    A. I did not feel sad or hopeless
    B. I did feel sad or hopeless but did not seek help
    C. Parent or other adult relative
    D. Teacher or other school staff
    E. Other adults
    F. Friends
    G. None of the above

14. Have you ever **seriously** thought about killing yourself?
    A. Yes
    B. No

The next question asks about hurting yourself without wanting to die.

15. Have you ever done something to purposely hurt yourself without wanting to die, such as cutting or burning yourself on purpose?
    A. Yes
    B. No

The next 9 questions ask about tobacco use.

16. During the past 30 days, on how many days did you smoke cigarettes?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

17. How old were you when you smoked a whole cigarette for the first time?
    A. I have never smoked a whole cigarette
    B. 8 years old or younger
    C. 9 years old
    D. 10 years old
    E. 11 years old
    F. 12 years old
    G. 13 years old or older

18. During the past 30 days, on how many days did you use **chewing tobacco, snuff, dip, snus, or dissolvable tobacco products**, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, Copenhagen, Camel Snus, Marlboro Snus, General Snus, Ariva, Stonewall, or Camel Orbs? (Do not count any electronic vapor products.)
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

19. During the past 30 days, on how many days did you smoke **cigars, cigarillos, or little cigars**?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

20. During the past 7 days, on how many days were you in the same room with someone who was smoking cigarettes?
    A. 0 days
    B. 1 day
    C. 2 days
    D. 3 days
    E. 4 days
    F. 5 days
    G. 6 days
    H. 7 days

21. How much do you think people risk harming themselves (physically or in other ways) if they smoke one or more packs of cigarettes per day?
    A. No risk
    B. Slight risk
    C. Moderate risk
    D. Great risk

22. If you wanted to get some cigarettes, how easy would it be for you to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

23. Has a doctor or someone in a doctor's office talked to you about the danger of tobacco use in the past 12 months?
    A. I have not visited a doctor's office
    B. Yes
    C. No

24. Has a dentist or someone in a dentist's office talked to you about the danger of tobacco use in the past 12 months?
    A. I have not visited a dentist's office
    B. Yes
    C. No

The next 9 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor, such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

25. Have you ever had a drink of alcohol, other than a few sips?
    A. Yes
    B. No

26. How old were you when you had your first drink of alcohol other than a few sips?
    A. I have never had a drink of alcohol other than a few sips
    B. 8 years old or younger
    C. 9 years old
    D. 10 years old
    E. 11 years old
    F. 12 years old
    G. 13 years old or older

27. During the past 30 days, on how many days did you have at least one drink of alcohol?
    A. 0 days
    B. 1 or 2 days
    C. 3 to 5 days
    D. 6 to 9 days
    E. 10 to 19 days
    F. 20 to 29 days
    G. All 30 days

28. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
    A. 0 days
    B. 1 day
    C. 2 days
    D. 3 to 5 days
    E. 6 to 9 days
    F. 10 to 19 days
    G. 20 or more days

29. During the past 30 days, how did you **usually** get the alcohol you drank?
    A. I did not drink alcohol during the past 30 days
    B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
    C. I bought it at a restaurant, bar, or club
    D. I bought it at a public event such as a concert or sporting event
    E. I gave someone else money to buy it for me
    F. Someone gave it to me
    G. I took it from a store or family member
    H. I got it some other way

30. If you wanted to get some alcohol, how easy would it be for you to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

31. If you drank some alcohol without your parents' permission, would you be caught by your parents?
    A. Definitely yes
    B. Probably yes
    C. Probably not
    D. Definitely not

32. How wrong would most adults over 21 in your neighborhood think it is for kids your age to drink alcohol?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

33. How wrong do your parents feel it would be for you to have **1 or 2** drinks of an alcoholic beverage nearly every day?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

The next 6 questions ask about marijuana use. Marijuana is also called grass or pot.

34. Have you ever used marijuana?
    A. Yes
    B. No

35. How old were you when you tried marijuana for the first time?
    A. I have never tried marijuana
    B. 8 years old or younger
    C. 9 years old
    D. 10 years old
    E. 11 years old
    F. 12 years old
    G. 13 years old or older

36. During the past 30 days, how many times did you use marijuana?
    A. 0 times
    B. 1 or 2 times
    C. 3 to 9 times
    D. 10 to 19 times
    E. 20 to 39 times
    F. 40 or more times

37. If you wanted to get some marijuana, how easy would it be for you to get some?
    A. Very hard
    B. Sort of hard
    C. Sort of easy
    D. Very easy

38. How wrong do your parents feel it would be for you to smoke marijuana?
    A. Very wrong
    B. Wrong
    C. A little bit wrong
    D. Not wrong at all

39. How much do you think people risk harming themselves (physically or in other ways) if they smoke marijuana once or twice a week?
    A. No risk
    B. Slight risk
    C. Moderate risk
    D. Great risk

The next 6 questions ask about other drugs.

40. Have you ever sniffed glue, breathed the contents of spray cans, or inhaled any paints or sprays to get high?
A. Yes
B. No

41. During the past 30 days, how many times did you sniff glue, breathe the contents of spray cans, or inhale any paints or sprays to get high?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

42. During your life, how many times have you taken **prescription pain medicine** without a doctor's prescription or differently than how a doctor told you to use it? (Count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.)
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

43. During the past 30 days, how many times did you take **a prescription drug** (such as OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

44. Has anyone offered, sold, or given you an illegal drug on school property?
A. Yes
B. No

45. About how many adults over 21 have you known personally who in the past year have used marijuana, crack, cocaine, or other drugs?
A. None
B. 1 adult
C. 2 adults
D. 3 or 4 adults
E. 5 or more adults

The next 4 questions ask about sexual behaviors.

46. Have you ever had sexual intercourse?
A. Yes
B. No

47. The **last time** you had sexual intercourse, did you or your partner use a condom?
A. I have never had sexual intercourse
B. Yes
C. No

48. Have you ever had oral sex?
A. Yes
B. No

49. Have you talked with your parent(s) and/or guardian(s) about sex in the past 6 months?
A. Yes
B. No

The next 7 questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

50. During the past 7 days, how many times did you drink **100% fruit juices** such as orange juice, apple juice, or grape juice? (Do **not** count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
A. I did not drink 100% fruit juice during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

51. During the past 7 days, how many times did you eat **fruit**? (Do **not** count fruit juice.)
A. I did not eat fruit during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

52. During the past 7 days, how many times did you eat **vegetables**, such as carrots, green salad, corn, or green beans? (Do **not** count french fries or other fried potatoes.)
A. I did not eat vegetables during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

53. During the past 7 days, how many times did you drink **a can, bottle, or glass of soda, sports drink, energy drink, or other sugar-sweetened beverage** such as Gatorade, Red Bull, lemonade, sweetened tea or coffee drinks, flavored milk, Snapple, or Sunny D? (Do **not** count diet soda, other diet drinks, or 100% fruit juice.)
A. I did not drink soda, sports drinks, energy drinks, or other sugar-sweetened beverages during the past 7 days
B. 1 to 3 times during the past 7 days
C. 4 to 6 times during the past 7 days
D. 1 time per day
E. 2 times per day
F. 3 times per day
G. 4 or more times per day

54. During the past 7 days, how many **glasses of milk** did you drink? (Count the milk you drank in a glass or cup, from a carton, or with cereal. Count the half pint of milk served at school as equal to one glass.)
A. I did not drink milk during the past 7 days
B. 1 to 3 glasses during the past 7 days
C. 4 to 6 glasses during the past 7 days
D. 1 glass per day
E. 2 glasses per day
F. 3 glasses per day
G. 4 or more glasses per day

55. What kind of milk do you **usually** drink? (Select only **one** response.)
A. I do not drink milk
B. Whole milk
C. 2% or reduced fat milk
D. 1% or low fat milk
E. Fat-free, skim, or non-fat milk
F. Chocolate or flavored milk
G. Some other type of milk
H. Not sure

56. During the past 7 days, on how many days did you eat dinner **at home with at least one of your parents/guardians**?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

The next 6 questions ask about physical activity.

57. During the past 7 days, on how many days were you physically active for a total of **at least 60 minutes per day**? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days
G. 6 days
H. 7 days

58. On an average school day, how many hours do you watch TV?
A. I do not watch TV on an average school day
B. Less than 1 hour per day
C. 1 hour per day
D. 2 hours per day
E. 3 hours per day
F. 4 hours per day
G. 5 or more hours per day

59. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Count time spent on things such as Xbox, PlayStation, an iPod, an iPad or other tablet, a smartphone, YouTube, Facebook or other social networking tools, and the Internet.)
A. I do not play video or computer games or use a computer for something that is not school work
B. Less than 1 hour per day
C. 1 hour per day
D. 2 hours per day
E. 3 hours per day
F. 4 hours per day
G. 5 or more hours per day

60. In an average week when you are in school, on how many days do you go to physical education (PE) classes?
A. 0 days
B. 1 day
C. 2 days
D. 3 days
E. 4 days
F. 5 days

61. Do any of your classroom teachers provide short physical activity breaks during regular class time? (Do not count your physical education teacher.)
A. Yes
B. No

62. During the past 12 months, on how many sports teams did you play? (Count any teams run by your school or community groups.)
A. 0 teams
B. 1 team
C. 2 teams
D. 3 or more teams

The next question asks about diabetes.

63. Has a doctor or nurse ever told you that you have diabetes?
A. Yes
B. No
C. Not sure

The next 3 questions ask about things you do to protect yourself from the sun.

64. When you are outside for more than one hour on a sunny day, how often do you wear sunscreen with an SPF of 15 or higher?
A. Never
B. Rarely
C. Sometimes
D. Most of the time
E. Always

65. During the past 12 months, how many times did you get a sunburn (that is, how many times did exposed parts of your skin stay red for several hours after you had been out in the sun)?
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

66. During the past 12 months, how many times did you use an indoor tanning device such as a sunlamp, sunbed or tanning booth? (Do **not** include getting a spray-on tan.)
A. 0 times
B. 1 or 2 times
C. 3 to 9 times
D. 10 to 19 times
E. 20 to 39 times
F. 40 or more times

The next 4 questions ask about disabilities and long-term health problems.

67. Do you have any physical disabilities or long-term health problems lasting or expected to last 6 months or more?
A. Yes
B. No
C. Not sure

68. Do you have any long-term emotional or behavioral problems lasting or expected to last 6 months or more?
A. Yes
B. No
C. Not sure

69. Would other people consider you to have a disability or long-term health problem, including physical health, emotional, or learning problems?
A. Yes
B. No
C. Not sure

70. Are you limited in any activities because of a disability or long-term health problem including physical health, emotional, or learning problems expected to last 6 months or more?
A. Yes
B. No
C. Not sure

The next 2 questions ask about the health and dental care that you get.

71. Where do you usually go for health care (for example, check-ups, when you are sick, etc.)?
A. I never seek health care
B. Family doctor
C. Community health center
D. School-based health center
E. Hospital or emergency room
F. Family planning clinic
G. No one place

72. When was the last time you saw a dentist or dental hygienist for a check-up, exam, teeth cleaning, or other dental work?
A. During the past 12 months
B. Between 12 and 24 months ago
C. More than 24 months ago
D. Never
E. Not sure

The next question asks about sleep.

73. On an average school night, how many hours of sleep do you get?
A. 4 or less hours
B. 5 hours
C. 6 hours
D. 7 hours
E. 8 hours
F. 9 hours
G. 10 or more hours

The next 6 questions ask about your school, your family, your community, and support that you get.

74. During the past 12 months, how would you describe your grades in school?
A. Mostly A's
B. Mostly B's
C. Mostly C's
D. Mostly D's
E. Mostly F's
F. None of these grades
G. Not sure

75. During an average week, how many hours do you spend in clubs or organizations (other than sports) outside of regular school hours?
A. 0 hours
B. 1 hour
C. 2 hours
D. 3 to 5 hours
E. 6 to 10 hours
F. 11 or more hours

76. Do you agree or disagree that at least one of your teachers really cares and gives you help and support when you need it?
A. Strongly agree
B. Agree
C. Not sure
D. Disagree
E. Strongly disagree

77. How often does one of your parents talk with you about what you are doing in school?
A. About every day
B. About once or twice a week
C. About once or twice a month
D. Less than once a month
E. Never

78. I have a family that gives me love and support.
A. Not at all or rarely
B. Somewhat or sometimes
C. Very or often
D. Extremely or almost always

79. Do you agree or disagree that in your community you feel like you matter to people?
A. Strongly agree
B. Agree
C. Not sure
D. Disagree
E. Strongly disagree

The last question asks about gambling.

80. Have you ever bet money or something else of value? (Include if you bet at a casino, race track, or online, bought lottery tickets, bet on a sports team, or played cards or other games for money or things.)
A. Yes
B. No

This is the end of the survey.
Thank you very much for your help.

The Maine Integrated Youth Health Survey is a collaborative effort of the Maine Department of Education and the Maine Department of Health and Human Services (Maine Center for Disease Control and Prevention & Substance Abuse and Mental Health Services).