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Evaluating the Frequencies of Self-Reported Mental Health Conditions in Affluent Youth

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2019

Abstract

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MPH, University of Nevada, Las Vegas, 2010

BS, Southern Utah University, 2004

Doctoral Study Submitted in Partial Fulfillment

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Doctor of Public Health

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Abstract

American youth are facing a mental health crisis. Rates of depression and suicide continue to rise among all children ages 12–17. While there is considerable research on the mental health of underserved children, much less is known about the mental health status of youth from affluent communities. The purpose of this study was to evaluate the effectiveness of community health assessment (CHA)-driven mental health interventions on the youth of affluent communities. Using a pre and post evaluation model, this study compared the frequencies of self-reported depression and suicide ideation for students in Grades 8, 10, and 12, and geographic location of the youth of affluent communities before and after implementing CHA-driven interventions. The diffusion of innovation theory guided this study and a quantitative quasiexperimental research design was used. The Utah Student Health and Risk Prevention survey provided 2,973 responses from students attending public high school during the 2011, 2013, 2015, and 2017 school years. Acting as the control, survey responses for depression and suicide ideation from 2011, prior to CHA-driven interventions, were compared to postCHA intervention efforts in 2013, 2015, and 2017. Statistical analyses indicated that the change in self-reported frequencies of depression and suicide ideation were not statistically significant for grade level or geographic location before and after CHA-driven mental health interventions. The results of this study might help local public health agencies working in affluent communities understand how the mental health status, especially among the youth demographic, might shape the future of public health and the role of public health practitioners in promoting social change.

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Dedication

I dedicate this work to my family, who I consider my greatest accomplishment in life. To my beautiful wife, there are no words to describe the love, respect, and admiration I have for you. You are my mountain and the common thread that binds our family together. I love you beyond words.

To my three kids, you are the greatest blessing in my life. I am grateful for the opportunity to watch you grow. I hope you find genuine happiness in life's journey and always seek those things that are good, true, and just. Please know that you are loved more than life itself.

To the four of you, your love and support is the reason this dream has come to be.

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Introduction

The overall state of mental health in American youth is rapidly deteriorating. According to the 2017 State of Mental Health in America youth data report, 11% of youth between the ages of 12–18 reported at least one major depressive episode during the 2017 calendar year (Mental Health America [MHA], 2018). During the same year, the National Institute of Mental Health (NIMH; 2017) reported that suicide was the second leading cause of death among American youth ages 15–24. The concerns associated with these reports is that both the number of depressive episodes and suicides is up from the previous year, a trend that has remained consistent over the last decade (MHA, 2018; NIMH, 2017). With a large number of individuals, including children and youth, from different cultures, backgrounds, and socioeconomic conditions struggling with mental health issues, it is evident that mental health is no longer an individual problem. Mental health has broken the social threshold and been confirmed as a public health concern (Lee, 2015). Therefore, the issue can no longer be restricted to a private clinical setting. Instead, there must be a concerted effort to bring awareness and resources to improving the mental health of youth (World Health Organization [WHO], 2014).

Local health departments across the United States have accepted the charge to tackle mental health at the community level. The American Public Health Association (n.d.) has declared the need for public health involvement in mental health to achieve parity and preserve the needs of future generations. However, even with the best of intentions, local efforts have been met with challenges due to the dynamic nature of

mental health, especially when considering the many social variables that influence adolescent behavior (Bøe et al., 2014; Meyer, Castro-Schilo, & Aguilar-Gaxiola, 2014; Schaefer et al., 2017). While local public health has experienced some small victories in managing mental health needs, the trending data indicates these efforts are not enough. Intervention efforts have produced subpar results, and complicated social factors have left many local public health agencies frustrated and wondering if their efforts are having a positive impact on the community (Henderson, Evans-Lacko, & Thornicroft, 2013).

Mental health differs from traditional public health in that socioeconomic status is not a sole predictor of risk or outcomes (Centers for Disease Control and Prevention [CDC], 2017c; Fink, 2014). This is especially true for youth (MHA, 2018). All youth, regardless of individual financial circumstances, are at risk of experiencing substandard mental health outcomes. This ever-present risk defies existing public health theory and places an immense burden on already limited public health funding (Lee, 2015). One of the conventional strategies used by local public health agencies to address public health concerns is the Community Health Assessment (CHA; National Association of County and City Health Officials, 2017). These data-driven assessments identify the current health of a community and guide future public health efforts. However, while a local CHA may capture a mental health need, it is undetermined if CHA-driven interventions are adequately equipped to improve mental health outcomes. This gap in knowledge threatens the efficiency of local public health and unintentionally provides a disservice to individuals, especially youth, struggling with mental health.

Socioeconomic status, poverty, and access to care are proven social determinants of overall health. They have also been proven to affect mental health, although they cannot be used as the sole predictors. While it is well known that poverty and socioeconomic status negatively influence mental health in youth (Elgar et al., 2016; Le-Scherban, Brenner, & Schoeni, 2016), much less is known about the role of affluence on mental health in youth and adults (Schaefer et al., 2017). With studies by Park and Hwang (2017) and Viner et al. (2012) indicating lower socioeconomic children living in affluent communities are at greater risk for negative health outcomes, it is unknown if this model is consistent for mental health in affluent communities.

As the public concern for mental health continues to grow, the role of public health will continue to evolve. Although most local public health agencies are willing to and capable of dealing with mental health, it is important to determine if traditional methods of assessment, like a CHA, are effective. Additionally, further defining the impacts of socioeconomic status and affluence on mental health are necessary for local public health agencies attempting to determine the breadth of the problem. Unfortunately, the matter is more pressing than ever considering the high rates of depression and suicide ideation in the youth population. Each child deserves an equal opportunity to live a long, healthy, and happy life. This belief is true for overall health as well as mental health and should not be predicated on socioeconomic standing. However, the definition and size of the problem must precede the solution. This research effort must include a commitment to understanding the current risks and social drivers of mental health across the entire

socioeconomic gradient. Additionally, research must determine if the current methods of assessment and identification are suited to deal with a problem of this magnitude.

Problem Statement

Mental health is defined as "a state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully and is able to make a contribution to his or her community" (WHO, 2014). The CDC (2017) identified mental health as an emerging public health issue, especially in youth 14–18 years of age. In the United States, improving the mental health of the youth population has become a top priority for many local public health departments. However, this task has proven difficult for local public health given the unpredictable and indiscriminate nature of mental health in children and young adults (Bøe et al., 2014; Elgar et al., 2014). While socioeconomic standing typically results in improved physical health outcomes, it does not preclude affluent individuals from experiencing the challenges related to mental health (CDC, 2017d). This paradigmatic shift from traditional public health theory, where increased access to care and resources generally improves health outcomes, makes it challenging for local public health officials to create effective programs that address mental health concerns using existing public health models (Soriano, 2013). The stereotypical belief that wealth eliminates risk has presented challenges to managing the mental health of youth in areas of affluence.

U.S. Highway 40 splits Summit County, Utah, creating a prominent physical, political, and economic divide between the east and west sides of the county. Nearly 65% of the population resides on the west side of the county where the rates of affluence are

greater than on the east side. While national reports indicate that Summit County typically experiences above average health outcomes (County Health Rankings Roadmaps, 2017; Summit County Health Department, 2012), it is likely that the findings of these studies do not accurately reflect the sensitive nature of mental health among the youth throughout the entire county (Piotrowska, Stride, Croft, & Rowe, 2015; Schaefer et al., 2017; Williams, Priest, & Anderson, 2016). In 2012, the Summit County Health Department (SCHD) completed a CHA that helped identify a lack of mental health services and programs in the area, including resources for suicide ideation and depression, as a primary concern. Among the priority groups were youth between the ages of 14–18 (hereafter referred to as "youth"). Furthermore, individuals with low socioeconomic status living in affluent communities experience an even greater gap in services, placing them at greater risk for mental health problems (Mendenhall, Kohrt, Norris, Ndetei, & Prabhakaran, 2017).

As a result of these findings, the SCHD implemented countywide intervention programs aimed at reducing suicide ideation and limiting depressive episodes, while improving access to mental health services. However, it is unknown if evidence-based initiatives like "QPR" (question, persuade, refer), which provide students and teachers with the skills to recognize individuals who are at risk of suicide and then act accordingly, have reduced the frequency of self-reported of suicide ideation, and "Hope Squad," which empowers student bodies to create student alliances aimed at inclusion of all students and improving morale, have reduced depressive episodes in youth throughout the county over the last six years. Furthermore, it is possible that the CHA- driven

intervention efforts have resulted in different outcomes in the youth from the east side compared to the west side, as a result of affluence and socioeconomic status, which could contribute to the mental health disparities of the youth in Summit County. With local public health agencies taking a keen interest in the mental health of their youth (United States Department of Health and Human Services, 2018), it is imperative to provide local health officials with evidence-based guidance on addressing mental health needs in all youth. While it is understood that children from all demographics are at risk for poor mental health outcomes (CDC, 2017a), it is important to determine if the CHA- driven interventions are effective tools for identifying and addressing the mental health status and challenges of youth within affluent communities. This research provides evidence of the potential conflicts between affluence and the mental health status of youth from affluent families or communities. Unfortunately, there is no research on the connection between mental health and CHA-driven initiatives for the youth of affluent communities.

Purpose of the Study

The purpose of this study was to determine the effectiveness of CHA-driven mental health initiatives in reducing the frequencies of self-reported depression and suicide ideation among the youth in generally affluent communities. As noted by the CDC (2017d) and Bøe et al. (2014), children of all ages are at risk for mental health complications despite the socioeconomic standing of the family. While much work has been done to describe the effects of poverty on mental health outcomes for youth (Elgar et al., 2016), the outcomes of mental health for youth in affluent communities are lesser known. Furthermore, there is a gap in the literature describing the correlation between

mental health, grade level, and geographic location in generally affluent areas. My goal for this study was to fill this literature gap and facilitate an understanding of potential mental health challenges in the youth of affluent communities. By comparing the frequencies of occurrence for suicide ideation and depression in the youth of affluent communities before and after a CHA-driven intervention, by grade and location, public health practitioners can understand the magnitude of the public health problem across the entire socioeconomic gradient.

In addition to the scholarly value provided by this study, the results of this research are critical for local public health agencies operating in affluent areas. As the focus of initiatives to improve mental health in communities evolves into a local public health issue, the need for evidence-based research, specific to suicide and depression in youth, is important for local public health agencies (Lê-Scherban et al., 2016). Furthermore, there is a need to determine if a CHA is an effective tool for identifying the mental health needs of a community and if the resulting CHA-driven initiatives are an effective tool for improving mental health outcomes. As the conversation about mental health, especially in youth, shifts from a clinical perspective to a public health approach, using data to facilitate the response is important for social change and removing the societal stigma associated with mental health challenges. More importantly, it ensures the efforts to improve outcomes are producing the desired results and providing individuals with opportunities for help.

Research Questions and Hypotheses

Research Question 1 (RQ1): What is the correlation between the frequencies of self-reported depression in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah?

Alternative Hypothesis (H_a1): There is a strong correlation between the frequencies of self-reported depression in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah.

Null Hypothesis ($H_0 1$): There is no correlation between the frequencies of self-reported depression in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health.

Research Question 2 (RQ2): What is the correlation between the frequencies of self-reported suicide ideation in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah?

Alternative Hypothesis (H_a2): There is a strong correlation between the frequencies of self-reported suicide ideation in 8th, 10th, and 12th grade students when

comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah.

Null Hypothesis ($H_0$2): There is no correlation between the frequencies of self-reported suicide ideation in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah?

Research Question 3 (RQ3): Is there a statistically significant difference between the frequencies of depressive episodes and suicide ideation in the youth (ages 14-18) of eastern Summit County and the youth (ages 14-18) of western Summit County when CHA-driven mental health interventions are similarly applied?

Alternative Hypothesis (H_a3): There is a statistically significant difference in the frequencies of suicide ideation and depressive episodes between the youth (ages 14-18) of eastern Summit County and the youth (ages 14-18) of western Summit County when CHA-driven mental health interventions are similarly applied.

Null Hypothesis ($H_0$3): There is not a statistically significant difference in the frequencies of suicide ideation and depressive episodes between the youth (ages 14-18) of eastern Summit County and the youth (ages 14-18) of western Summit County when CHA-driven mental health interventions are similarly applied.

Theoretical Foundation of the Study

The theoretical framework that I used for this study was the diffusion of innovation theory (DOI), which studies the adoption and diffusion of public health interventions throughout a community (Rogers & Shoemaker, 1971). The DOI is used to examine how an intervention gains momentum and diffuses throughout a population. According to the theory, the rate at which the information disperses and becomes effective is dependent upon the individual's social characteristics and circumstances, like culture and socioeconomic status (Glanz, Rimer, & Viswanath, 2015). The point at which the idea is adopted is influenced by five main factors including the relative advantage provided, individual compatibility with the idea, complexity of the concept, verification of the idea, and the observed results from its implementation (Glanz et al., 2015). As a result, the DOI can be used to predict how innovations are channeled through the social system, how quickly the message is received, and the success of the intervention messaging. This has proven helpful in public health when considering elements of social change as they relate to interventions aimed at injury prevention and cessation practices (Greenberg, 2006). Successful communication and adoption of health promotion messaging is an essential link in the efforts to enhance and improve the wellness of populations and communities. The significant role of the DOI cannot be underestimated in the effort to solicit consequential messages from leading public health agencies regarding mental health (Lee, 2015). Additionally, the connection between intervention efforts and pre-post analysis align with the framework of the DOI. Therefore, the DOI

framework can assist in determining if CHA-driven initiatives are effective for improving mental health outcomes in the youth of affluent communities.

Nature of the Study

For this study, I used a quantitative method with a quasiexperimental design. Quantitative research is consistent with a pre-post intervention study design to evaluate the effectiveness of evidence-based public health programs (Soriano, 2013; Thiese, 2014). Creswell and Creswell (2017) noted that a quasiexperimental design is an effective means for determining causality where a pre-post test design is used.

This study focused on youth attending public high school in Summit County. There are three school districts in Summit County, with approximately 2,100 students aged 14–18. Based on current enrollment numbers for the 2017–2018 school year, there are 983 students on the east side and 1,119 on the west side of the county. This study will help the researcher consider frequencies of self-reported suicide ideation and the number of self-reported depressive episodes among this target demographic. By evaluating secondary data acquired during the implementation of mental health programs, this research can help determine whether improvements in mental health outcomes over a six-year period are consistent and effective for youth attending public high school. Additionally, the results will be used to determine if the differences in mental health outcomes between the east and west sides are statistically different as a result of affluence (Pem, Bhagwant, & Jeewon, 2016).

Literature Search Strategy

My focus in the literature review was to identify peer-reviewed articles and academic works that addressed the connection between CHA's, mental health, and public health among youth populations. My strategy for the literature search was to identify research relevant to the topic of study using electronic library databases, search engines, government publications, non-profit organizations, and textbooks from 2003–2018. I acqired seminal articles using an open-ended search that was not date-restricted.

I used a variety of research databases to search for peer-reviewed articles, including Walden Library, Academic Search Premier, PubMed, ResearchGate, MEDLINE, PsycINFO, and Sage Publications Incorporated. The literature search used Google Scholar and Google as the primary search engines for the literature review. Government publications from the CDC, the WHO, and the National Institutes of Health (NIH) provided additional inforamtion for this literature search. The National Association of City and County Health Officials (NACCHO), American Public Health Association (APHA), and National Association of Local Boards of Health (NALBOH) provided information specific to local public health agencies. Textbooks acquired during coursework provided the theoretical framework and identified suitable statistical tests for this research.

Search Terms

The following terms were used for the literature search: *mental health, public health, childhood mental health, community health assessment, community- based participatory research, poverty, affluence, socioeconomic status and mental health,*

community mental health, mental health programming, mental health outcomes in youth, youth suicide, youth depression, income inequality and mental health, diffusion of innovation theory and mental health, and *social determinants of mental health.* The review of texts and reports focused on publications written in English between 2012–2018. However, all texts and articles were considered. Articles and textbooks regarding theory, evaluation practices, and statistical analysis were not date restricted and permitted for use during the literature review.

Literature Review Related to Key Variables/ Concepts

Mental health is a broad term that defines a variety of emotions related to well being. To date, much of the work around mental health in youth has focused on identifying and understanding the risks associated with social inequality (WHO, 2014). Reiss (2013) found strong similarities in the social determinants as they relate to physical and mental health. Poverty, violence, domestic instability, and family status all negatively impact adolescent mental health in families with lower socioeconomic status (Viner et al., 2012). Although fundamentally different, social stressors have also been found to impact the mental health of youth from affluent families and communities, resulting in negative mental health outcomes (Levine, 2008). Family expectations, material desires, and isolation have been identified as predictors of depression and suicide in affluent youth (Levine, 2008). These findings indicate the burden of mental health is endemic across all social structures, from rich to poor, and the perceived benefits of affluence do not preclude youth from experiencing mental health setbacks (Schaefer et al., 2017). Fink (2014) believed this subgroup is overlooked and forgotten, limiting our understanding of

the immense need for mental health assistance in affluent youth. Luthar and Barkin (2012) argued there is far less research evaluating the connection between affluence and mental health when compared to social inequality and mental health. As a result, it is possible that the mental health crisis among youth is far greater than originally anticipated (Schaefer et al., 2017). Furthermore, youth on the lower end of the socioeconomic scale in affluent communities are at even greater risk than the youth of the same income bracket living in impoverished or underserved areas (Osypuk & Tchetgen, 2012; Williams, Priest, & Anderson, 2016).

This separation between the privileged and underprivileged creates a void that allows youth to be overlooked and forgotten until it is too late (Bor et al., 2014). Additional social stressors could also cause variation in the mental health of children by grade level as they experience different cultural norms and seek social acceptance (Cummings, Wen, & Druss, 2013). This potential gap in care grows due to the lack of understanding on the effectiveness of CHA-driven mental health interventions for all youth in affluent communities. The connection between affluence and mental health, along with the use of CHA-driven interventions, must be explored further to gain an understanding of how intervention efforts aimed at affluent communities with a complex social dynamic fare in improving mental health outcomes.

Mental Health in Youth

Bor, Dean, Najman and Hayatbakhsh (2014) believed the mental health of children is under attack. Data provided by the CDC (2017d), the NIMH (2018), and the WHO (2014) provided evidence of a steady decline in mental health among youth,

especially considering the increase in depressive episodes and suicide. The NIMH reported in 2017 that suicide was the second leading cause of death in youth, runner-up to only accidental or unintentional injury. During that same year, the number of youth reporting at least one depressive episode rose from 8% to 11% in 1 year based on findings from a national survey (NIMH, 2018). Given this trend, the APHA (n.d.) has joined the declaration that the preservation and promotion of mental health in youth is a public health concern now and for the future.

Cummings et al. (2013) and Henderson et al. (2013) believed access to effective mental health services and social stigma are two of the biggest challenges for youth dealing with suicide and depression. The cultural stigma of mental health has prevented teens from seeking services when available, and the social pressures of adolescent society have forced them to keep their emotions internalized, which adds to other emotional problems that may already exist (Piotrowska, Stride, Croft, & Rowe, 2015). Bor et al. (2014) suggested that this is not specific to any one socially constructed group, but rather it is the result of limited resources to deal with an increasing problem. Therefore, rich or poor, all youth are at risk of experiencing substandard mental health outcomes. As a result, the effects of mental health are carrying over into adulthood as these youth enter college and the workforce (Lê-Scherban et al., 2016).

Youth from affluent communities have above average health outcomes but face similar mental health outcomes as youth living in poverty and social inequality situations (Meyer, Castro-Schilo, & Aguilar-Gaxiola, 2014). However, the mental health struggles of affluent youth are often forgotten and overlooked given their social standing and

dogmatic belief that their needs are being met (Luthar, 2003). While affluent youth may not be at risk in a traditional sense when compared to other children in different economic positions, when considering their vulnerability and need, the risk of suicide and depression remains high (Luthar & Barkin, 2012). Therefore, research efforts to understand the challenges faced by affluent children should compare to those of work being conducted on the correlation between economic inequality and health outcomes. As predicted by Schaefer et al. (2017), until we fully understand the extent of mental health in all youth, we cannot begin to implement programs that create immediate social change.

Predictors of Mental Health in Youth

Predictors of mental health in youth can range based on social structure, economic position, geographic region, and individual resiliency (Mendenhall et al., 2017). Although these predictors are fairly consistent in all aspects of health, the social factors present in affluent situations should not be discounted given their tremendous effect on mental health (Levine, 2008; Luthar & Lantendresse, 2005). Multiple studies have shown that privileged children are suffering from high rates of depression, anxiety, and substance abuse (Levine, 2008; Reiss, 2013; Viner et al., 2012). Additionally, children living in affluent situations can feel isolated given the lack of parental commitment and involvement in life experiences (Viner et al., 2012). Fink (2014) cited the stress caused by family affluence, expectations, and career selection as a direct predictor of depression and suicide in young adults attending college. In early studies, Luthar (2003) indicated that a social shift in the traditional family structure and the lack of parental investment in fostering a family environment would have dire impacts on the mental health of children

from wealthy families. Luthar supported this prediction with the 2005 paper indicating a shift was occurring and children with affluent upbringings were being forgotten. Finally, in 2012, Luthar and Barkin noted that an entire subpopulation had been overlooked and is now experiencing rates of suicide and depression that deserve immediate attention. Given these findings and predictions, there is evidence that affluence is a predictor of poor mental health in youth.

Depression in Youth

Due to the changing levels of hormones associated with puberty, the volatile nature of the youth social structure, youthful inexperience, and anxieties caused by the educational component of school, many of the symptoms used to describe depression might be expected in youth between the ages of 14–18 (Hawton et al., 2013). However, these natural feelings associated with development into adulthood should not be confused with depression or depressive episodes. A depressive episode is defined by feelings of severe anxiety, emptiness, hopelessness, worthlessness, guilt, and inadequacy that result in insomnia, loss of appetite, and the inability to perform everyday functions (NIMH, 2018). These symptoms last for an extended period of time, generally 2 weeks or more, and are not resolved on their own. These feelings are immune to interactions with the outside world and often become worse as a result of them (CDC, 2017c). While mild symptoms can be expected during a break-up or exam season, the consistent and strong nature of these symptoms do not persist as they do in youth experiencing a significant depressive episode (Cummings et al., 2013).

In 2017, one in 10 children experienced an extended depressive episode (NIMH, 2018). Levine (2008) noted that affluent children have higher rates of depression than any other group of young people in the United States. However, despite the perception that resources are available to manage mental health, less than 5% of the affluent youth receive professional help (Hawton et al., 2013). Even worse, a high percentage of these youth have considered or attempted suicide, making depression the number one risk factor for suicide in affluent youth (CDC, 2017c; Fink, 2014; NIMH, 2018; Schaefer et al., 2017; Viner et al., 2012; Williams et al., 2016).

Suicide in Youth

Suicide is the second leading cause of death in youth ages 12–18 and the second leading cause of death for individuals between the ages of 10–24 (CDC, 2016). More teenagers die from suicide than cancer, heart disease, pneumonia, influenza, and drug overdose combined (CDC, 2017d). According to the CDC (2016) and the NIMH (2017), suicide in youth has nearly tripled since 1940. Levine (2008) cited that much of this increase has occurred in the youth of affluent homes and communities. The risk factors for suicide include depression, a family history of mental health problems, access to lethal means, alcohol and drug use, exposure to suicidal behavior by others, and underdeveloped social skills (Hawton et al., 2013).

Although most teens, especially girls, are unlikely to convey feelings or intent to commit suicide, certain trends have emerged. The CDC (2016) noted that of the reported suicides for youth between the ages of 10–24, 81% were boys and 19% were girls.

According to preliminary data provided by the Utah Department of Substance Abuse and Mental Health through the Student Health and Risk Prevention Survey (SHARP), overall Utah ranks number five out of 50 for rates of suicide (SHARP, 2018). When considering youth-specific data, Utah has a suicide rate of 13.15 per 100,000 individuals (SHARP, 2018). Furthermore, the NIMH (2017) believed that in almost 100% of the youth suicide cases, the deceased youth displayed at least one symptom that might indicate the individual was struggling with suicidal tendencies. Unfortunately, it is estimated that only one in 47 teens who are contemplating suicide consider using suicide-specific resources (CDC, 2016).

For those who have attempted suicide and survived, the majority of them find themselves in a similar position at a later date if they do not receive treatment and help (Elgar et al., 2016). This increases the need for program evaluation aimed at reaching at-risk populations, including affluent youth. Bor et al. (2014) noted that mental health problems, including suicide, are dramatically increasing among the youth population, yet little has changed in how health advocates have approached the problem. This may indicate that CHA-driven interventions are inadequate to deal with a problem of this magnitude on any socioeconomic level. While it has been determined that affluent youth are at an increased risk of suicide when compared to any other youth subgroup (Luthar & Barkin, 2012), it is less understood if public health intervention strategies are an effective approach to this painful truth.

The Culture of Affluence

Wealth presents unique opportunities for affluent youth that are not available to children from other socioeconomic classes (Osypuk et al., 2012). While this statement comes as no surprise to public health professionals, it is an important fact that deserves further consideration. In most cases, affluence presents opportunities that result in better health outcomes, better schooling, a safer community environment, and material possessions—like cars and cellphones—that increase quality of life (Lund & Dearing, 2013). However, this culture of affluence can lead to behaviors that destroy individual mental health while negatively influencing the mental health of those around the individual (Yoshikawa, Aber, & Beardslee, 2012).

Additionally, children from wealthy families have high rates of substance abuse and underage drinking and are sexually active at early ages (Viner et al., 2012). Luthar and Barkin (2013) believed these risky behaviors are the result of increased access to such items as a result of additional financial means or minimal supervision from absent parents. This additional money can promote feelings of privilege and superiority over students from families of lesser economic means. This belief is further supported by acts of bullying and isolation by affluent teens against their peers from less affluent families (Yoshikawa et al., 2012). Each of these unhealthy behaviors can lead to depression and are sometimes considered an outward expression of an internal cry for help (Levine, 2008).

In some instances, the family structure of affluent families can experience struggles that mirror single-parent homes or homes with domestic instability. Although

these teens are not at risk of financial instability, it is not uncommon for parents to lack the day to day interactions with their children that are important for social, emotional, and physical development (Elgar et al., 2013). Parents in affluent communities or homes may be career driven which can limit their time at home. Even when both parents are in the home, personal ambitions and individual interests can rank higher than being involved with children or understanding the needs of the child (Viner et al., 2012). This results in missed opportunities to establish bonds between parents and children, making it more difficult to create a relationship as the child grows into adulthood.

According to Lund and Dearing (2013), growing up in affluent areas presents risks associated with a constant connection to peers through social media and other technology platforms. Unlimited access to the internet means youth with cell phones and other devices are constantly evaluating the social dealings of their peer network. Rarely are these youth seen without their cell phones, and it is common to engage in social media banter several times a day (Schaefer et al., 2017). This constant exposure limits the youth's ability to detach from the electronic world and exposure to potentially harmful interactions. The inability to escape social media presents a constant barrage of information that is perceived as factual and consequently used to evaluate oneself (Bor et al., 2014). These experiences can be both good and bad. However, when the use of social media results in mistreatment, bullying, or intentional harm to an individual, either emotional or physical, the inability to remove one's self from this harassment dramatically increases the risk of depression and suicide (Lê-Scherban et al., 2016). Although this form of mental abuse occurs in all youth, the material possessions and

resources that are available to affluent youth provide increased access to various social media platforms at an early age. This constant connection through cell phones, tablets, and other means of mobile electronic access make it nearly impossible for youth to escape the negative influences found on social media. As a result, their perception of reality is formed through the content on social media, which can have negative consequences on mental health (Olfson, Druss, & Marcus, 2015).

Affluence and Mental Health in Youth

Luthar and Lantendresse (2005) noted that affluence presents various psychosocial risks to children. Levine (2008) supported this claim by providing evidence of increased risk of depression, anxiety, substance abuse, and social disorders among youth 12–18. Levine (2008) added that the constant pressure of achievement and emotional and physical isolation between children and parents in affluent situations can dramatically increase rates of depression and suicide. This contradicts the stereotypical belief that children of wealth are at low risk, and children of poverty are at high risk. Piotrowska et al. (2015) argued that all children, regardless of socioeconomic standing, are at risk of mental health problems. Luthar (2003) and Luthar and Barkin (2012) provided compelling evidence that affluence has been a driving factor for suicide and depression in youth for a considerable amount of time. Recent studies by Lund and Dearing (2013) and Schaefer et al. (2017) indicated that early predictions about failing mental health in affluent youth are being fulfilled. Just as children of poverty were ignored by researchers in the 1960's and 1970's, research on the mental health of affluent children has been limited, in comparison to other studies involving mental health, based

on the stereotypical belief that this subgroup was at low risk given their socioeconomic standing.

While wealth and resources typically result in better outcomes, it does not guarantee that individuals will seek the help that is available. Ibrahim, Kelly, and Glazebrook (2013) found that college-level youth of affluent families do not seek help or utilize resources for mental health issues for fear of disappointment or ridicule from family members. Park and Hwang (2017) had similar findings in their assessment of Korean youth who avoided reporting feelings of depression or anxiety to their parents so they would not bring embarrassment upon the family name. Bøe et al. (2014) posited that parents and their level of support is the number one reason youth seek help for mental health problems. However, if children are isolated from parents, this level of support does not exist. Elgar et al. (2013) noted that the availability of resources does not ensure youth will receive the necessary treatment for mental health problems, even when parents are closely involved with children. This presents a similar risk to that of children in lower socioeconomic positions when resources are not available. Regardless of the barrier, be it lack of resources or the avoidance of existing resources, the outcomes of suicide ideation and depression remain despite socioeconomic position.

Community Affluence and Mental Health of Youth

The culture of affluence also presents challenges as it relates to social perception and the community. Sometimes referred to as "keeping up the with Jones,'" the pressure to remain popular, relevant, and consistent with the latest social trends creates additional pressure that may evoke stress and mental health problems for both parents and children

(Julien, Richard, Gauvin, & Kestens, 2012). While the health implications of neighborhood and community structure are well-known indicators of health, affluence is generally not considered a risk factor for mental health. However, based on early indications from preliminary studies, it appears that affluent communities may present the same risk as other communities with a history of poor mental health outcomes in youth.

Solari (2012) suggested that neighborhoods across the United States have undergone dramatic change over the last decade. While affluent neighborhoods continue to provide physical safety and promote physical activity, the core of the personal connection between neighbors, friends, and community is deteriorating (Solari, 2012). However, it is difficult to define a faltering human connection at the broader social level and it is unknown if the downfall of the American neighborhood is somehow connected to the increase in mental health problems among youth. For those that believe it takes a village to raise a child, this could be true. Solari (2012) suggested additional research is needed and warranted.

Those living in affluent areas typically value the presentation and social status of their neighborhood over the sense of community. This individualistic dynamic can facilitate a false sense of mental safety and well-being. Furthermore, this isolating behavior can carry over to the children, as they too are isolated from others in the community (Meyer, Castro-Schilo, & Aguilar-Gaxiola, 2014). Additionally, wealthy children who are isolated, both physically and emotionally, may develop psychosocial problems that directly contribute to depression or may lead to suicide. However, these risk factors are often ignored under the pretense that wealth minimizes risk. Lund and

Dearing (2013) believed that being raised in an affluent community presents its own risks for youth and these children deserve special considerations. Levine (2008) believed the price of privilege is more than the material cost but extends to include the mental health of youth in these areas. Luthar and Barkin (2012) suggested that while the mental health risks associated with wealthy neighborhoods are better understood, additional research is needed to determine how best these youth are served and how efforts to improve mental health can overcome the barriers of wealth and affluence.

Family Affluence and Mental Health in Youth

Luthar (2003), Levine (2008), and Elgar et al. (2016) cited isolation and family pressure as risk factors for suicide and depression in youth ages 12–18. Isolation occurs as a result of the parents' perception of what is best for their child. Although this concern exists, it is not the intent of the parents to place their child in this position. The pursuit of career goals, community involvement, or advanced education requires valuable time. These pursuits are not rooted in greed or individual accomplishment; rather they are taken up with the idea that they provide additional and better opportunities for the child (Julien et al., 2012). However, this commitment to providing the child with material possessions and wealth comes at a cost. While the parents believe they are doing what is best for the child, the child does not understand the connection between the wealth, time, and the absence of the parents (Levine, 2008). Instead, the perception of the child is formed by the limited interaction with his/her parents. Therefore, the cost to provide for the child is more than just time; it can present challenges that relate to mental health that may manifest in different ways later in life.

Family pressure is another risk factor for mental health problems in the youth of affluent families. Fink (2014) noted that family pressure to select a prestigious institution, be successful both in school and thereafter, and pursue the appropriate career path all affected the mental health of American college students from wealthy families. Ibrahim et al. (2013) found that similar family pressures on college students resulted in increased rates of depression in the UK. These pressures may stem from a variety of social constructs, both historical and current. However, their presence in the conversation about mental health in the youth of affluent communities cannot be ignored. Levine (2008) reported that fear of failure or disappointment is typically reported by youth who attempted suicide and failed. In some cases, the parents were unaware that pressure or expectations even existed (Lê-Scherban et al., 2016). Nonetheless, family affluence results in family pressure, and both must be considered when addressing the mental health of affluent youth.

Operational Definitions

Affluence: For this study, affluence is defined as the median income being greater than 40% above the national median income (Solari, 2012). Summit County's median income is $91,470, compared to the national median income of $59,039 (United States Census Bureau, 2017) placing it at 54.93% above the national average. Affluent neighborhood advantages include safety, high-quality schools, proximity to jobs, increased physical activity, and access to health care services (Luthar & Barkin, 2012).

Community Health Assessment-Driven Interventions: Mental health interventions, like "QPR" and "Hope Squad," that originated from the findings of a CHA that are

intended to address and improve the deteriorating mental health of youth using a public health approach.

Depression: A common but serious mood disorder. It causes severe symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, or working. For a person to be diagnosed with depression, symptoms must be present for at least two weeks (National Institute of Mental Health, 2018).

Mental Health: The state of emotional, behavioral, and social maturity or normality that influences the emotions, feelings, and behaviors of an individual (National Institute of Mental Health, 2018).

SHARP Survey: The Student Health and Risk Prevention (SHARP) statewide survey is administered every two years to students in grades 6, 8, 10, and 12 in all public school districts across Utah. This voluntary survey is designed to assess adolescent substance use, antisocial behavior, and the risk and protective factors that predict these adolescent problem behaviors, including depression and suicide (Utah Department of Human Services, 2018).

Socioeconomic Status: The social standing or class of an individual or group (American Psychological Association, 2018). It is often measured as a combination of education, income, and occupation. Examinations of socioeconomic status often reveal inequities in access to resources, along with issues related to privilege, power, and control (Elgar et al., 2016).

Suicide: Death caused by self-directed injurious behavior with intent to die as a result of the behavior (NIMH, 2017). Suicide is the second leading cause of death for

youth between the ages of 10 and 24 and results in approximately 4,600 lives lost each year (CDC, 2017d). Deaths from youth suicide are only part of the problem. More young people survive suicide attempts than actually die (Reiss, 2013).

Youth: The United Nations (n.d.) defines youth as individuals between the ages of 15–24. For this study, the term youth describes the age group of children 14–18 years of age attending public high school in Summit County, Utah in order to capture those students transitioning from eighth grade to ninth grade who are 14 years of age.

Assumptions

The following assumptions were made in this study:

1. The SHARP dataset resulted from a truly cross-sectional study that provides quality data through anonymous participation in the survey for all youth attending high school between the ages of 14–18 in Summit County, thereby increasing the quality of the data and reducing potential bias.
2. Data entry was done in the most efficient and effective manner to limit errors.
3. Missing data from the original dataset were completely at random, and the absence of information did not bias the results of the study in any way, even when listwise deletion, pairwise deletion, or hot deck imputation data cleaning techniques were used by the original researchers (Langkamp, Lehman, & Lemeshow, 2010).
4. The youth participants in the study answered the questions honestly and free of bias.

5. The youth participants in the study were residents of Summit County, Utah between the ages of 14–18 years of age attending high school.
6. The expected dependent and independent variables were contained within the secondary dataset used for this study.
7. The dataset holders willingly released the dataset for this analysis upon request.
8. The datasets had enough responses and variables for an unbiased analysis.

Considering these assumptions enhanced the validity of the study.

Limitations

The following limitations of this study are hereby acknowledged:

1. This study used secondary data for analysis. Therefore, the available data were not collected to address this particular study's research questions.
2. The SHARP survey is voluntary, which could affect the inferences drawn from this study.
3. This dataset includes seven years of survey data (2011–2017). During that time, the level of mental health awareness may have changed due to notable events around youth depression and suicide ideation.
4. Individual perceptions about what defines a depressive episode and suicide ideation may have skewed the answers provided by survey respondents.
5. The normal hesitation of youth participants to share individual experiences may influence the findings of the study even when surveys are anonymous.

This limitation must be considered when using secondary datasets involving youth participants (Creswell & Creswell, 2017).

Scope and Delimitations

This study was based on the SHARP statewide survey dataset that evaluated depression and suicide ideation in youth ages 14–18 for the years 2011, 2013, 2015, and 2017 and was delimited to a quantitative cross-sectional study. The data used for this analysis are specific to Summit County, Utah and do not include other jurisdictions in the State of Utah. By using a secondary dataset, there was no primary data collection or contact with the participants of the survey. This resulted in the study being delimited to the information collected during the initial research project. All private and protected information (i.e., name, gender, home address) was removed from the dataset provided for this study. The sample population was inclusive of all youth between the ages of 14–18 attending high school in Summit County. Although the survey was completely voluntary, 3,581 responses were received over the seven-year period. The survey responses were not selected at random during data collection. Instead, all completed surveys were included as part of the dataset. All survey responses from youth in Summit County were included in the data analysis given the focus on the youth in the geographic region.

Significance

The purpose of this study was to determine if mental health initiatives based on the findings of a CHA are capable of effectively addressing suicide and depression in the youth of affluent communities like Summit County. In 2013, one year after the Summit

County CHA, the first mental health programs, like QPR and Hope Squad, were presented to the three different high schools. Since that time, a variety of CHA- driven programs aimed at improving mental health within the high schools have been implemented. However, the effectiveness of these programs has never been formally evaluated. Given the selected time frame of the study, this research will evaluate seven consecutive years (2011–2017) of youth-specific data for suicide ideation and depression by grade and by location to determine the effectiveness of these efforts. As a result, the findings will help determine if affluence is a barrier to CHA-driven mental health initiatives among the youth population.

Evaluating the effectiveness of a project pre- and postimplementation is considered best practice for any public health effort (Davis et al., 2014; Hill et al., 2017). Per the direction provided by Thiese (2014), one year of preimplementation data supported by multiple years of postimplementation data with a large sample size for evaluation is sufficient. In the case of this study, five years of postimplementation data is provided with a sample size of more than 5,000 youth attending public high school. Therefore, the timeframe for evaluation would appear adequate for public health programming given the parameters established by Thiese (2014).

This study builds upon the growing body of evidence that focuses on the connection between mental health and public health and the need for evidence-based action by local health agencies. On a fundamental level, such a study is needed to determine the effectiveness of the SCHD's intervention efforts in comparison to the CHA goals set in 2012. The scholarly value of this research is an expanded understanding of

the mental health improvements across the east and west sides of the county where personal economic position is a potential barrier to mental health services and mental health outcomes. This research can provide the SCHD and other local public health agencies with insight into the power of the CHA tool to identify and address the mental health needs of affluent communities. Furthermore, it can provide evidence that supports efforts to improve mental health in the community by the health department administration, fosters public support, and justifies the use of taxpayer funds for public health programs (Crosby, Salazar, & DiClemente, 2011). With mental health problems affecting youth across all levels of the socioeconomic scale, it is imperative to determine if CHAs are an effective tool for local public health agencies operating in diverse socioeconomic communities.

Evaluating the pre- and postintervention changes regarding suicide ideation and depression in the youth of Summit County will provide an added understanding of the social variables, like culture and affluence, which influence mental health outcomes for the youth in affluent communities. Regardless of the outcome of the study, this information can provide the SCHD and possibly similar local health departments, where affluence is a confounding variable, with an evidence-based approach to guide and direct public health interventions focusing on mental health. As a result, future public health efforts can be developed to ensure that all of the youth across the entire socioeconomic gradient are equally represented in public health programs intended to evoke equitable social change.

Summary and Conclusions

Mental health is an important aspect of overall health. Establishing a healthy connection between one's mental state and the body is fundamental to a happy, healthy, and fulfilling life. Much like a healthy diet and exercise are necessary for optimal physical health, managing and nurturing mental health is critical for optimal emotional health. This is especially true for children and young adults as they grow and develop into adulthood. Providing youth with the necessary tools to manage their own situations is the first priority in reducing the rates of depression and suicide ideation. At a time when concerns for mental health are warranted, the youth must feel comfortable in seeking help for feelings or emotions that do not solicit happiness but detract from the overall quality of life. A firm understanding of the problem at hand is needed to enact positive social change. This is accomplished by identifying the breadth of the problem across the entire socioeconomic strata and evaluating the effectiveness of the intervention programs specific to the youth contingency.

Mental health continues to be a somewhat taboo subject. Although the discussion surrounding mental health has been advanced in recent years, those who struggle with mental health or mental illness still feel isolated and alone (Henderson et al., 2013). Traditionally, mental health has been dealt with in a professional clinical setting aimed at treating the individual. This covert approach has allowed a dark cloud to reign over the subject without addressing the social aspects of mental health (Schaefer et al., 2017), which has contributed to the hesitation in tackling mental health on a larger scale. Mental health is not only the result of individual feelings, but it is the culmination of the built

environment, experiences, culture, and other social constructs that form an identity. More importantly, mental health is the result of individual perceptions about one's value, contribution, and happiness. When these individual views are misinformed, skewed, or inaccurate, a person's mental health is at risk. However, just like the common cold can be managed until physical health is restored, lacking mental health can be restored with proper treatment and care when identified early in the process (Henderson et al., 2013). Unfortunately, with the large increase in depressive episodes and suicide among youth in the last five years, it appears as though current efforts are not reaching the youth early enough in the process. This has resulted in a problem that has outgrown the individualized care setting and crossed the social threshold into a public health concern. While the clinical aspect of treatment is necessary for providing care, a public health approach is needed. This combination of private health and public health is vital to improving mental health and arming children with the tools and skills for improving mental health.

Public health offers a variety of resources that are not otherwise available to individuals struggling with mental health. This is especially true for individuals without the means to seek private, individual treatment. Although private clinicians play an important role in mental health, they are client- based. The role of the licensed clinician is similar to a medical doctor in that patients seek their services for treatment. Unfortunately, these services can be expensive and require a commitment of monetary resources that might not be available to families on the lower end of the socioeconomic scale living in highly affluent areas. Additionally, interventions are based on individual

circumstances. The treatment is tailored to meet the needs of the individual based on the assessment of the mental health professional. This customized approach is not meant to improve the mental health of a specific demographic or select group of individuals. Instead, the focus is on the individual client. This model is used for treating mental health for those that can afford services through cash payment or insurance providers. However, this option of treatment is limiting and not available to everyone. Lack of insurance and costly fees for services rendered make it difficult, if not impossible, for many. Therefore, public health messaging and publicly funded intervention strategies are the only help for some. These public health efforts complement what is being accomplished in the private practice setting and provide an opportunity for a more robust and comprehensive approach to dealing with mental health, but only when the intervention programs are evaluated for applicability across all demographics.

In addition to increasing public awareness, public health has the power to remove the social barriers associated with mental health. The recent declaration by the world's leading public health agencies has placed public health on the front line of improving mental health with special emphasis placed on the youth worldwide. A review of the recent reports by Mental Health America (2017) and the NIMH (2017) indicates that early efforts by local public health agencies are failing the youth. Like any other underperforming public health intervention, assessment and analysis at the local level are needed. This evaluation of local efforts is not only socially responsible, but it is also important for improving the state of mental health in the at-risk youth demographic.

Reports by the CDC (2017), the World Health Organization (2017), the American Public Health Association (2015), and NIMH (2015) have identified youth, especially those in high school, as an at-risk population. Unfortunately, this declaration is as broad and non-selective as it sounds. While some data indicate elevated levels of depression and suicide in youth living in poverty, a majority of the current literature identifies all youth as at-risk despite individual social circumstances. While CHAs have proven successful in other areas of public health, it is unknown if these same outcomes can be expected when considering mental health initiatives. This lack of knowledge has left public health scrambling to resolve the issues surrounding mental health.

As eluded to earlier, most of the work around mental health in youth has been focused on the underserved populations on the lower end of the socioeconomic scale. The pressures of poverty, violence, gangs, drugs, and culture have all been identified as detractors of good mental health. Additionally, the lack of resources and access to mental health care exacerbate the problem, limiting the youths' abilities to manage their own mental health. However, questions about the impacts of CHA-driven mental health interventions on youth in affluent areas where resources are available remain. Minimal research has been done to understand what triggers depression and suicide ideation in youth on the opposite end of the socioeconomic scale when the social and cultural triggers associated with poverty are absent. Julien et al. (2012) found that income expectations, family commitments, and social norms impacted mental health outcomes in middle to upper class working adults. Hawton et al. (2013) noted workplace stress, job status/ importance, and social standing were predictors of depression in adults coming

from affluent families. Fink (2014) and Ibrahim et al. (2013) had similar findings reporting that wealthy college students identified family expectations, school major, social structure, and job placement as affecting individual mental health outcomes. Although many of these social predictors are specific to individuals with increased socioeconomic status, the outcomes of depression and suicide ideation are the same.

The problems associated with mental health cannot be addressed until public health practitioners, as the new stewards of mental health, determine the extent of the problem. This evaluation includes the youth of affluent areas. This is especially true as mental health interventions take an upstream approach to early identification and helping of youth learn to manage depression. Furthermore, the need to determine how the youth of affluent areas respond to public mental health interventions is warranted. This research study enhances our overall understanding of the current mental health status of all youth and adds to the existing literature on mental health among the youth group. Additionally, it adds to the existing literature and expands upon the understanding of depression and suicide ideation in the youth category, which is critical given the dire results of recent reports. The findings of this study will provide local public health agencies with evidence-driven guidance for dealing with mental health in the youth of affluent communities. Coupling these findings with the existing literature base provides local public health agencies operating in almost any socioeconomic climate a more comprehensive understanding of mental health among youth ages 14–18.

As public health continues to navigate deeper into the throngs of mental health, evidence-based guidance is needed. As local public health continues the frontline

approach to administering programs aimed at improving public health, they too will need data to support their efforts. However, these data can not focus on an extremely diverse subgroup that experiences somewhat unpredictable behavior due to puberty and maturation. Instead, the literature must provide a comprehensive and inclusive reference to all youth across all social structures. Currently, there is a gap in the literature when considering youth from affluent communities. However, this research helps to fill that gap and provides an understanding of how public health can evoke positive social change in the youth across the entire social strata.

Section 2: Research Design and Data Collection

The purpose of this quantitative study was to examine the association between mental health and the youth attending public school in affluent communities where CHA-driven interventions have been applied. The researcher analyzed the relationship between the frequency of self-reported suicide ideation and depression and the geographic region in Summit County (east versus west) and frequency of self-reported suicide ideation and depression and high school grade level in the public school system when CHA- driven interventions are equally applied. This section includes descriptions of the design, methodology, operationalization of variables, threats to validity, ethical considerations, and the data management process that I used for this research.

Research Design and Rationale

I used a quasiexperimental design for this research. A quasiexperimental design is the same as a classic controlled experimental design with the only difference being that additional statistical controls must be considered because the subjects cannot be randomly assigned (Creswell & Creswell, 2017; Thiese, 2014). According to Glanz et al. (2015), quasiexperimental research is consistent with a quantitative pre-post intervention study design to evaluate the effectiveness of evidence-based public health programs. Furthermore, Creswell and Creswell (2017) noted that a quasiexperimental design is the most effective means of determining causality where a pre-post test design is used.

A quasiexperimental approach has many benefits for research using secondary data. Quasiexperimental designs are less time consuming and can maximize available resources and expedite the analysis of secondary data. Additionally, a quasiexperimental

design allows the study to be replicated, even when traditional control measures are missing (Kontopantelis, Doran, Springate, Buchan, & Reeves, 2015). This level of control is important for research where repeated measures are necessary to determine the effect. The ability to replicate the findings of a quasiexperimental design increases the validity and reliability of the study, which is important in all research. The additional control afforded by a quasiexperimental design using secondary data extends to the variables of suicide, depression, zip code, and grade as well, again increasing the reliability of the study. As a result, the quasiexperimental design can account for lack of a true, randomized study by implementing controls, such as complete inclusion to reduce selection bias and respondent weighting, which allow inferences to be made about causality in a timely and efficient manner, an attribute that was important to the outcome of this study.

The survey was administered to all youth without prejudice or selection. Therefore, a random selection process could not be established. In lieu of a true randomized selection process, a pre-post evaluation model, which is consistent with a quasiexperimental design, was used where all survey respondents were included in the analysis of suicide ideation and depression before and after exposure to the CHA driven interventions in the high school youth of Summit County. The control was then compared to the frequency of self-reported suicide ideation and depression postintervention effort. As noted by Schweizer, Braun, and Milstone, (2016) a research design of this nature, using a pre-post evaluation technique, can benefit from a quasiexperimental design, providing additional validation for its use in this research.

I used secondary data provided by the SHARP database for this study. The use of secondary data presents many benefits to the researcher including access, efficiency, and effectiveness. First, the selection of the SHARP dataset provided access to relevant and timely information about suicide ideation and depression in the youth of Summit County, making it both cost-effective and highly beneficial to the research. Second, the secondary data also provided both historical and current information that could not otherwise be collected retrospectively at the individual level. In a study such as this, where the ability to analyze historical data is paramount to the outcomes, secondary data are the only viable option. Third, the use of secondary data eliminates the ethical issues associated with primary data collection and ensures the confidentiality of the survey respondents. Finally, secondary data can be easily formatted, and statistical analysis can be executed quickly, increasing efficiency and reducing the amount of time spent analyzing data. The SHARP dataset is a large, robust, and comprehensive secondary dataset that offers all of the benefits above while providing the necessary variables for this research.

Methodology

An explanation of the methodology used to perform the study is provided in the following subsections. A description of the target population, data management practices, sampling techniques, instrumentation and operationalization constructs, data analysis plan, threats to validity, and ethical procedures are included in this section.

Target Population

The SHARP database is a collection of data gathered by the Prevention Needs Assessment (PNA) survey. The PNA survey is administered every 2 years to students in

6th, 8th, 10th, and 12th grades in most public and certain charter school districts in Utah (UDHS, 2018). The SHARP survey is a voluntary survey designed to assess adolescent substance abuse, identify antisocial behavior, and understand mental health challenges in Utah's youth to predict adolescent problem behaviors. The voluntary survey is administered to students in each school district throughout the state. The data are then further categorized by individual schools within each district, which allows for analysis between schools within the same district.

For this research, the SHARP survey data from 2011, 2013, 2015, and 2017 for Summit County were used. The target population was all youth between the ages of 14–18 who are in 8th–12th grade in Summit County. On average, this survey generates 1,100 responses in Summit County from the target population each year of the survey. The statistical analysis included all completed surveys from students who are residents of Summit County. Although the survey included questions about substance abuse, sexual activity, and antisocial behavior, the research only considered data for depressive episodes and suicide ideation. Grade and location were the only personal identifiers used for this research. All other personal information was removed from the dataset as it was not necessary.

Sampling Techniques

The PNA survey was developed by the Center for Substance Abuse (CSA) to provide sound evidence of youth risk levels in a community (Utah Department of Human Services [UDHS], 2018). Different versions of the PNA have been used throughout the United States for decades with great success. The PNA survey tool has helped state and

local health agencies develop effective prevention services at the regional level (UDHS, 2018). The PNA survey anonymously measures 17 risk factors and 10 protective factors and inquires about alcohol, tobacco, and other drug use (ATOD). Additionally, the PNA collected data on mental health issues, such as suicide ideation and depressive episodes, which provided the information that is specific to this research. In total, the survey used 127 questions to measure 366 items to gather risk information about youth in the State of Utah. The results of the PNA survey are formatted for the Utah SHARP dataset, which was used for this research.

Utah State Law requires current legal parental consent at the start of each school year for students to participate in voluntary surveys that are not considered part of the school curriculum. Therefore, the PNA survey is officially considered an *opt-in* activity and students are not obligated to participate. The opt-in approach limits the number of youth who completed the survey. While students are strongly encouraged by school and health officials to participate in the survey, no incentives or compensation are offered. After receiving the necessary permissions, the survey is administered to students in 6th, 8th, 10th, and 12th grades in 39 of 41 school districts in Utah. Generally speaking, the survey was offered to students during February and March. Given the length of the survey, the time to complete the survey exceeded the time allowed for a single class. Therefore, the survey was given over two different second hour class periods on consecutive days. In 2017, the survey resulted in 54,853 total respondents statewide and 50,237 valid responses that would be included in the database. A total of 4,616 questionnaires were eliminated from the dataset by the sponsors of the survey. The

quality data that remained was then organized into 13 groups that corresponded with the jurisdictional boundaries of the 13 local health departments that cover the 29 counties in Utah. As a result, the data were made available to each local health department.

Before the administration of the survey, Bach Harrison, LLC, the contracted data management company, reviewed current enrollment numbers and determined the necessary threshold of students that needed to be sampled to provide a fair and adequate representation of youth for each region. At the conclusion of the survey, the UDOH, Bach Harrison, LLC, and the Utah Department of Substance Abuse and Mental Health (UDSAMH) determined that each of the 39 participating school districts had received a sufficient number of respondents for valid statistical analysis (UDHS, 2018).

In Summit County, the sampling techniques described above resulted in 1,244 responses in 2017, 1,303, in 2015, 1,366 in 2013, and 1,367 in 2011 for students in 8th through 12th grades. In each of the listed years, the numbers listed above represented nearly 50% of the student body, meaning half of the students from the three school districts in Summit County completed the survey.

The SHARP dataset used a non-probability voluntary sampling method to collect the data from the PNA survey tool given the voluntary nature of the survey. Non-probability sampling methods are consistent with voluntary sampling methods where participants self-select into a survey (Schweizer, Braun, & Milstone, 2016). The advantages of a non-probability approach are convenience and cost of the sampling. Unfortunately, this approach does not allow the original researchers to estimate the extent to which the sample statistics differ from the general population (Maguire, Rosato, &

O'reilly, 2017). However, with the survey being voluntary and requiring parental consent per the state rule, the approach to sampling was limited, and researchers must use what methods are available and considered acceptable.

Data Management

An inter-local agreement between the UDOH and the Utah Association of Local Health Departments allowed access to the SHARP dataset for this research. The researcher made a formal written inquiry to the Summit County Health Officer requesting permission to access the SHARP data in the raw format. The local Health Officer granted permission and provided notification to the state contact responsible for the SHARP dataset. The existing data use agreement between the Summit County Health Department and the UDOH allowed Bach Harrison, LLC to release the requested dataset for research purposes. The use and management of the data were consistent with the expectations outlined in the existing data use agreement to ensure the data remained authentic and uncompromised.

Justification for the Sample Size, Effect Size, Alpha Level, and Power Level

A power analysis using G*Power 3.1.9.2 helped determine the sample size and power level for the statistical analyses portion of this research. The test family was *z* test, the statistical test was a logistic regression, and the power analysis was *A priori: Compute required sample size*. For the sample size and power analyses, the effect size was set at 0.2 and the alpha level was set at 0.05 to limit type 1 error and improve external validity by increasing the opportunity to correctly reject the null hypothesis (Creswell & Creswell, 2017). A power level of 80% was selected to reduce type 2 error

(Frankfort-Nachmias & Leon-Guerrero, 2015). The results of the power analysis indicated a minimum sample size of 568 for this research. For this study, the sample size for each year was 1,244 respondents (2017), 1,303 respondents (2015), 1,366 respondents (2013), and 1,367 respondents (2011) with normal distribution. Each year provided a larger sample size then what is required, thereby increasing the power above the initial selection of 80%.

Instrumentation and Operationalization of Constructs

The PNA survey instrument was a tool used by UDOH and Utah Department of Human Services (UDHS) to gather information about the different health and behavior risks presented to youth within Utah's communities. The PNA survey tool was offered to youth in public schools in 6th, 8th, 10th, and 12th grade every 2 years and was voluntary. The data collected by PNA survey was used by the UDOH and UDHS as the basis for the creation of the SHARP survey project dataset (UDHS. 2018). The SHARP project was a collaborative effort sponsored by the UDHS, Division of Substance Use and Mental Health, Utah State Board of Education, and the UDOH. The findings of the survey from the 39 different school districts were made available to all 13 local health departments in the State of Utah as part of an executive agreement between the Utah Association of Local Health Departments and the UDOH.

Variables provided by the SHARP dataset via the PNA survey tool were used to operationalize the assessment of mental health, as it related to depression and suicide ideation, in the youth attending public high school in Summit County. Four different variables were used for this study: (a) grade, (b) zip code, (c) had seriously considered

suicide in the past 12 months, and (d) experienced a depressive episode in the last 12 months. Survey participants were provided predetermined lists for grade selection (Grades 8, 10, or 12) and zip codes specific to residents in Summit County. In each category, a selection was made from one of the predetermined answers that were specific to Grades 8 through 12 and zip codes that were specific to Summit County, Utah. Answers to the survey questions about depressive episodes and suicide ideation consisted of "yes" or "no" options.

Variables regarding grade and zip code were identified as independent variables for this research. Nominal scales of measurement were used to categorize the independent variables. For purposes of comparison between the east and west sides of Summit County, zip codes were combined into a dichotomous format (east or west) based on location in relation to the separation created by U.S. highway 40. Nominal scales of measurement were also used for the dependent variables of depressive episodes in the last 12 months and suicide ideation in the last 12 months.

Other variables related to ATOD risk, or individual social factors provided by the PNA survey and the SHARP dataset were not considered for this research.

Data Analysis Plan

The Statistical Package for Social Science (SPSS) version 23 was used to perform the analytical strategies suggested by Isaacs et al. (2014) and Read, Quinn, Berwick, Fineberg, and Weinstein (1984) for the SHARP dataset. SPSS was used to run the analyses for both the descriptive and inferential analyses. The descriptive statistics included percentages, means, and graphs to provide a general characterization of the

secondary dataset (Thiese, 2014). Logistic regression was used to test hypothesis one and two and examine the association between the binary dependent variables of suicide ideation and depression and grade level in the youth of Summit County between the ages of 14–18 from 2011 through 2017. A one-way analysis of variance (ANOVA) was used to test hypothesis three and compare the frequencies of self-reported suicide ideation and depression between zip codes on the east side and the west side from 2011 through 2017.

The SHARP dataset provided the necessary independent and dependent variables for this research. Grade level was the independent variable and self-reported depression was the dependent variable for research question one. Grade level was also the independent variable for research question two with self-reported suicide ideation acting as the dependent variable. For research question three, geographic location (east versus west) was considered as the independent variable and suicide ideation and depression were identified as the dependent variables.

Data Cleaning and Screening Procedures

The SHARP dataset contains multiple variables that are unnecessary for this research. At the time the dataset was requested from Bach Harrison, LLC, specific instructions were given as to what information was needed for this research. As a result, Bach Harrison only delivered the variables of interest (grade, location, and survey results for questions related to depressive episodes and suicide ideation). As a matter of privacy, and to ensure compliance with protections described in the collaborative memorandum of understanding with the individual school districts, the data management group handled the data cleaning procedures. Upon delivery, Bach Harrison, LLC had made efforts to

clean and screen the data. The data management group handled the missing data, coding errors, irregularities, and outliers before the dissemination of information. Missing answers were coded using a "*-9*". Multiple marks/ answers were coded as "*-8*". Irregularities and other errors were coded as "*-4*". Prior to releasing the dataset for this research, Bach Harrison, LLC analysts applied a raking ratio to the survey respondents. The raking ratio respondent weighting method is a poststratification procedure for adjusting sample weights in a survey to represent the known population characteristics of each regional grouping (Deville, Särndal, & Sautory, 1993). This method of weighting helped ensure the survey sample reflected the total population of Utah students by grade, gender, and race/ethnicity (UDHS, 2018). Additionally, it allowed the data to accurately represent the youth demographic of Summit County. Outliers missing more than 50% of the survey questions were excluded from the provided dataset prior to delivery. The initial efforts of Bach Harrison, LLC provided a great benefit to the research project and helped expedite the data analysis portion of the study.

Once the dataset was received, it was entered into SPSS using methods described by Wagner (2016) to ensure the data analyses were effective and correct. The results of the analyses are found in chapter three.

Threats to Validity

In research, the term validity describes to what extent the research measures what it intended to measure. With each type of research design, there are different and unique threats to validity. Quasiexperimental research offers many advantages over true experimental research (Kontopantelis et al., 2015). However, the lack of randomization

afforded by a quasiexperimental design presents challenges that threaten the internal and external validity of the research. Although quasiexperimental research presents some threats to validity, researchers can use various controls, such as omitting personal information or unique identifiers, to overcome these concerns. However, these strategies must be acknowledged and accounted for early during the research design process to eliminate concerns of validity within the study (Schweizer et al., 2016). With multiple threats to internal and external validity potentially influencing the findings of any research, it is important that the individual methods used to increase the validity of the study be discussed in full transparency.

Although the SHARP dataset has a long history of implementation and validation, some common validity concerns related to secondary data still exist. As a secondary dataset, there is potential for unknown errors in the collection of primary data and the entry of data into the database (Johnston, 2017). The anonymous nature of the survey makes it difficult to determine if the dataset provides an accurate representation of the general population even with a large sample size. The voluntary aspect of the survey presents potential bias through individuals with a vested interest in the survey topic being more likely to participate in the survey when compared to the general population (Creswell & Creswell, 2017). This bias could result in the answers provided being skewed to one end of the spectrum depending on the subject of the survey and the interest of those who participate (Shaw, Cross, Thomas, & Zubrick, 2015).

As with any self-reporting survey, the responses and the data generated from those responses are dependent upon the honest and truthful answers of the youth taking

the survey. Short et al. (2009) reported that using self-reported measures introduces exaggeration and over- commitment, which exposes research to concerns of validity and bias. Additionally, self-reported surveys introduce a certain level of error based on individual experiences. Although existing research shows that youth tend to answer anonymous surveys honestly (Short et al., 2009), individual interpretation of life events can vary greatly based on gender, age, and personal history. What one individual perceives as a severe depressive episode might be interpreted as less severe by another survey respondent. This difference in perception can result in different answers being reported although the actual event shared many similarities as defined by a clinical interpretation (Joffer, Jerdén, Öhman, & Flacking, 2016).

Further threats to validity arise from the time span of the dataset (2011–2017). During this time, specific events that were unrelated to the CHA efforts for mental health may have influenced the responses of individuals for better or worse. Additionally, maturation in both the individual (physical/ natural) and his/her experience in completing the survey could influence the answers provided over the course of the dataset timeframe. As youth progress through puberty, their attitudes may change the provided response (Short et al., 2009). Furthermore, there is the expectation that some youth will have completed the survey multiple times during their high school years, which could also change the outcome of the responses (Short et al., 2009).

While the use of a secondary dataset created through an anonymous, voluntary survey, coupled with a quasiexperimental design present some threats to validity, considerable efforts have been made to increase the validity of this research. Early efforts

by Bach Harrison, LLC to weight, clean, and refine the data through consistent processes will improve the quality of the data and the validity of the research. Additionally, many of the concerns noted are minimized with a large sample population taken over a longer period of time (Frankfort-Nachmias & Leon-Guerrero, 2015; Glanz et al., 2015). With the survey being an opt-in for youth, every student was given an equal opportunity to participate. The opt-in aspect of the survey minimizes selection bias by researchers. The anonymous nature of the survey presents a level of randomness that helps strengthen the quality of the non-probability voluntary sample even when some bias may be present. As a result of these efforts, a best faith effort has been made to increase validity with these controls in place and other statistical controls applied during the analysis portion of the research.

Ethical Procedures

One of the many benefits afforded by secondary data in research is that most of the approvals and ethical considerations have been managed by the original research group (Johnston, 2017). This assumption also applies to the SHARP dataset. As required by Utah State Law, a completed and signed parental consent form was required before a student could complete the PNA survey. Therefore, all of the respondents and the answers provided in the dataset are compliant with state law as determined by the UDOH and UDSAMH. By using a secondary dataset, the researcher never had direct contact with any of the survey respondents nor participated in the administration of the survey. This ensures the confidentiality and anonymity of the respondents being preserved. The confidentiality of personal information is further enhanced by the purposeful exclusion of

unnecessary information, like gender, at the time the request for data was made. As a result, the dataset provided by Bach Harrison, LLC included only relevant information to this study, which limited the potential ethical concern of confidentiality.

The existing data user agreement provided a legally binding document that required the dataset only be used for intended research purposes and that the information not be distributed to anyone outside the researcher. The agreement further requires that information is used only for the purpose defined in the agreement, and that any variation or continuation of the research will require additional approvals. Furthermore, as outlined in the data user agreement, it is required that the data be held in a safe, secure place to eliminate the possibility of unpermitted dissemination. In an effort to honor the agreement between agencies, the expectations of this agreement were upheld to the highest degree.

The Walden University Institutional Review Board (IRB) provided formal review and approval of this research on August 28, 2018. Once approval was received, the data retrieval, data analysis, and interpretation portion of the research was able to commence.

Dataset Treatment Postanalysis

Per the existing data user agreement between the Utah Association of Local Health Departments, UDOH, and the local school districts, the data used for this research were deleted from the system once the research was completed and final approval was received. This action not only satisfies the expectations of the data use agreement, but it also represents responsible and ethical research using secondary data (Creswell & Creswell, 2017).

Summary

The purpose of section two is to describe the research design and rationale, the methodology of the research, and the potential concerns of validity for this study. Additionally, the target population, sampling techniques, data analysis plan, data management, and ethical considerations were described. Finally, the instrumentation and operationalization of the variables are discussed in detail, which provides an understanding of how the variables are measured and used for the research.

The SPSS program version 23 provided tools for the statistical analysis of the SHARP dataset, which was provided by the PNA survey. All ethical considerations and legal obligations regarding the survey were managed by Bach Harrison, LLC and the dataset was acquired through appropriate channels between public health agencies in the State of Utah. Additionally, evidence of approval from the Walden University IRB was provided with the accompanying documentation.

Section two provides a descriptive foundation that supports the framework of the study. Section three builds on the information provided in this section and describes the statistical functions and theories that allow evidence-based assumptions to be made. These conclusions are then applied to positive social change and recommendations are made for how the results of this study can benefit local public health agencies.

Section 3: Presentation of the Results and Findings

The purpose of this study was to evaluate the effectiveness of CHA- driven mental health interventions to reduce the self-reported frequencies of suicide ideation and depression in the youth of affluent communities. This research, utilized mental health data provided by the SHARP dataset for youth attending public school in Summit County, Utah, an affluent area, for the calendar years 2011, 2013, 2015, and 2017. A G*Power analysis confirmed the sample size was sufficient for this study, and the UDOH and the UDSAMH confirmed the sample was representative of the local youth population in Summit County, Utah. The dataset had been cleaned, screened, and coded by Bach-Harrison, LLC prior to my receiving the data, which expedited the data analysis process. All personal and sensitive information was removed from the dataset per the 'Fair Use Data Agreement' to protect the anonymity. All survey responses in the dataset were included in the analysis.

In this section, I present the results of the statistical analysis of the mental health survey responses provided by the SHARP dataset. Section 3 concludes with a summary of the findings from the data analysis performed. Section 4 provides an interpretation of the results and the applicability of this research for creating social change.

Statistical Results

The statistics and inferential analysis results for RQ1 and RQ2 are presented first, followed by the results for RQ3. First, the inferential analysis compared the individual data from 2013, 2015, and 2017 to 2011. Then the cumulative data from 2013, 2015, and 2017 were compared to 2011. Each analysis was conducted in accordance with the data

analysis plan described in Section 2. The statistical analysis was performed using SPSS version 23 under the direction provided by Wagner in his 2017 text on statistics for social sciences.

Logistic Regression

The researcher used logistic regression for RQ1 to determine the correlation between the frequencies of self-reported depression in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah.

Logistic regression was also used for RQ2 to determine the correlation between the frequencies of self-reported suicide ideation in 8th, 10th, and 12th grade students when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah.

This analytical approach determined the strength of the relationship between the self-reported presence- absence of depression and suicide ideation in the surveyed population, grades 8, 10, and 12, where CHA-driven mental health interventions were implemented. As stated by Kontopantelis et al. (2015), the use of logistic regression is acceptable for determining the strength of the relationship in a quasiexperimental design using two or more independent variables. For this analysis, 2011 was designated as the quasicontrol and compared to survey results from 2013, 2015, and 2017, both individually and collectively.

The number of survey responses for the logistic regression are presented in table one. The survey respondents are separated by grade and by year to provide evidence of adequate representation for each grade sampled. In total, 42% (*n* = 1271) of the survey respondents were in 8th grade, 33% (*n* = 982) were in 10th grade, and 24% (*n* = 625) were in 12th grade.

Table 1

Frequency of Survey Responses by Grade and Year for Self-reported Depression and Suicide Ideation

		Grade Level Survey Responses by Year				
		2011 *n*=453	2013 *n*=967	2015 *n*=928	2017 *n*=625	Total *n*=2973
Self-reported depression during the last 12 months	8th Grade	196 (21)	322 (59)	390 (87)	363 (58)	1271 (225)
	%	43.2 (10.7)	33.3 (18.3)	42.0 (22.3)	58.1 (16.0)	42.8 (17.7)
	10th Grade	145 (22)	361 (68)	318 (69)	158 (34)	982 (193)
	%	32.0 (15.2)	37.3 (18.8)	34.2 (21.7)	25.3 (21.5)	33.0 (19.7)
	12th Grade	112 (12)	284 (45)	220 (40)	104 (26)	720 (123)
	%	24.7 (10.7)	29.4 (15.8)	23.7 (18.2)	16.6 (25.0)	24.2 (17.1)
Self-reported suicide ideation during the last 12 months	8th Grade	196 (15)	322 (36)	390 (49)	363 (46)	1271 (146)
	%	43.2 (7.7)	33.3	42.0 (12.6)	58.1 (12.7)	42.8 (11.5)
	10th Grade	145 (18)	361 (34)	318 (44)	158 (30)	982 (126)
	%	32.0 (12.4)	37.3	34.2 (13.8)	25.3 (19.0)	33.0 (12.8)
	12th Grade	112 (10)	284 (26)	220 (31)	104 (16)	720 (83)
	%	24.7 (8.9)	29.4	23.7 (14.1)	104 (15.4)	24.2 (11.5)

Note: (*) indicates the number of positive responses for that question compared to the overall number of responses.

The number of survey responses provide evidence that the sample size met the requirements established by the G*Power analysis. Figures 1–4 provide visual representation of the answers for depression and suicide ideation. The figures are separated by grade with categories for “yes” and “no” provided for each survey response. Additionally, the figures provided help to show whether an increase in the number of self-reported mental health survey responses occurred and how each grade was impacted by depression and suicide ideation. A brief assessment of the figures indicated a large increase in the number of students self-reporting depression and suicide ideation following the implementation of “Hope Squad” and “QPR” in 2012. There is a reduction in the number of positive survey responses from 2015 to 2017. However, the frequencies of self-reported depression and suicide remain proportionately similar to previous survey years. The increase in self-reported depression and suicide ideation could be attributed to extrinsic factors that influenced survey responses, such as the method of delivery, all of which are discussed in section four.

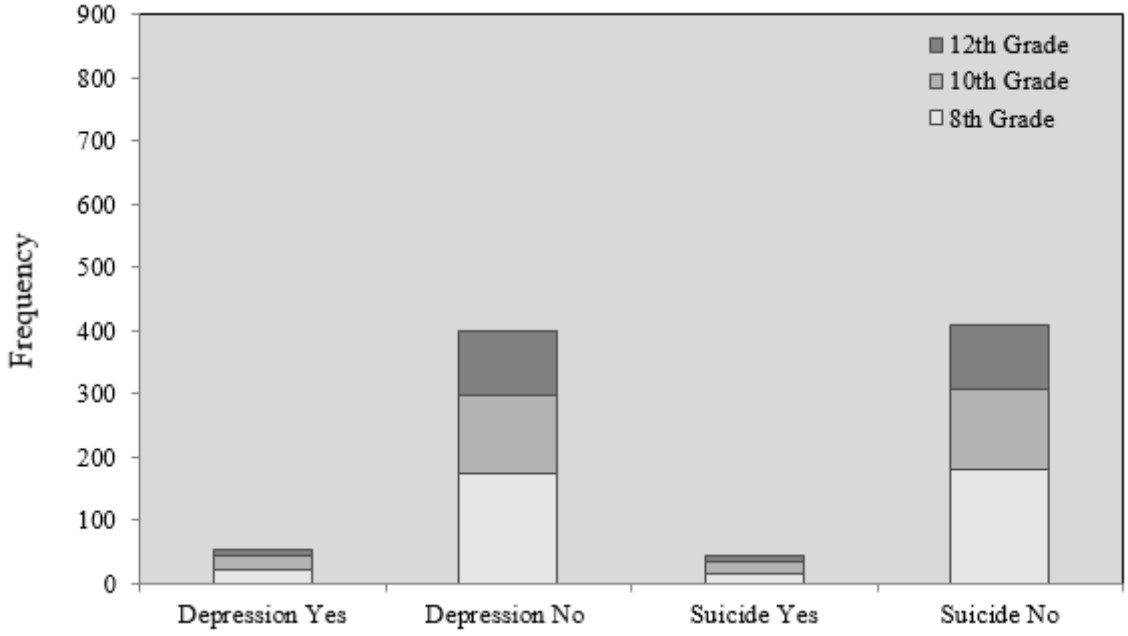

Figure 1. Self-reported depression and suicide by grade during the 2011 school year.

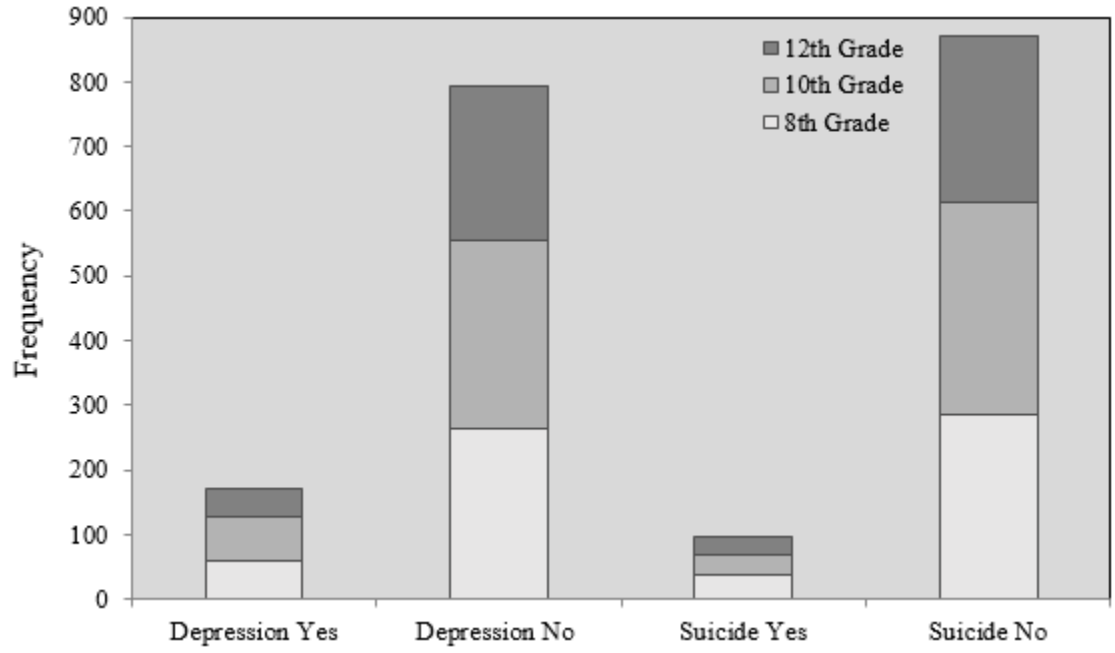

Figure 2. Self-reported depression and suicide by grade during the 2013 school year.

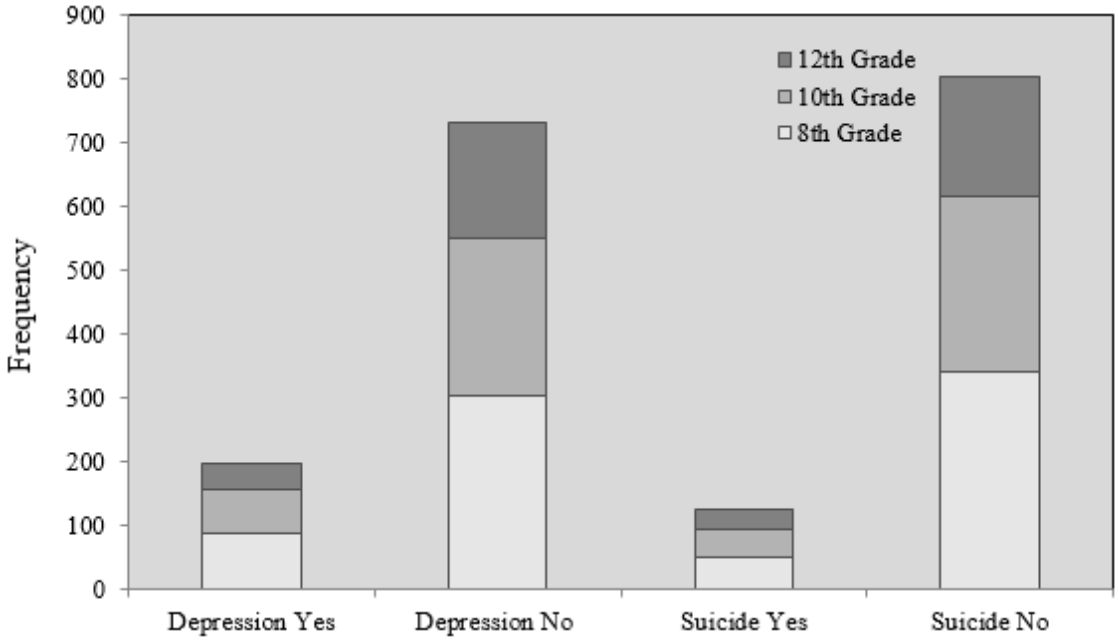

Figure 3. Self-reported depression and suicide by grade during the 2015 school year.

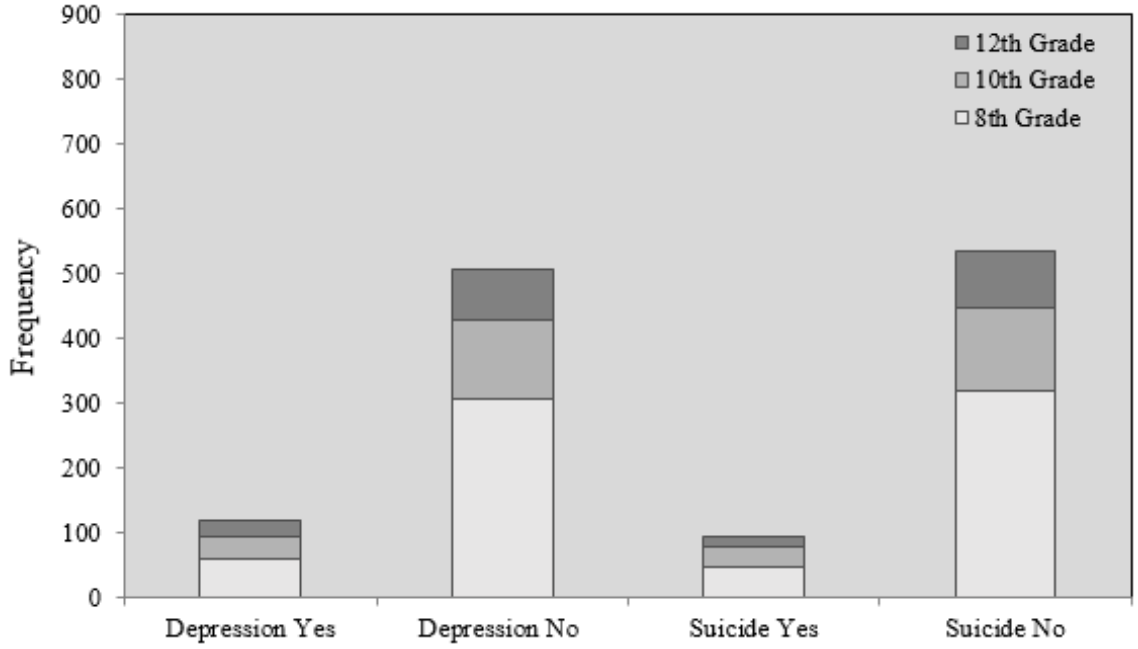

Figure 4. Self-reported depression and suicide by grade during the 2017 school year.

This analysis provided a comparison of the survey results of 2011 to 2013, 2015, and 2017 individually. From the statistical analysis it was determined that the differences in the frequencies of self-reported depression in the target population were not statistically significant between grades postintervention, both individually and cumulatively. The analysis of suicide ideation provided the same results.

Tables 2 through 5 provide the outputs for the self-reported depression survey results used to answer research question one. The results of the logistic regression indicated that while students in 8th, 10th, and 12th grades attending public high school in Summit County, Utah reported feelings of depression, the differences between grades from 2011 to subsequent years were not statistically significant. In 2017, the reports by 8th of feeling depressed approached significance ($p = .060$) when compared to survey responses from the 2011 survey. However, these results fell short of the predetermined criteria and cannot be considered significant. Therefore, null hypothesis for RQ1 that there is no correlation between the frequencies of self-reported depression, by grade level, when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah cannot be rejected.

Table 2

Students Self-reporting Feeling Depressed During the 2013 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.175	.217	.651	1	.420	.839
	10th Grade	-.209	.211	.982	1	.322	.811
	12th Grade	-1.285	.255	2.315	1	.198	.277

a. Variable(s) entered on step 1: 8th Grade, 10th Grade, 12th Grade

Table 3

Students Self-reporting Feeling Depressed During the 2015 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.241	.213	1.281	1	.258	.786
	10th Grade	-.239	.221	1.170	1	.279	.787
	12th Grade	-.102	.253	1.423	1	.507	.359

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

Table 4

Students Self-reporting Feeling Depressed During the 2017 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	.509	.271	3.545	1	.060	1.664
	10th Grade	.106	.299	.126	1	.722	1.112
	12th Grade	.587	.331	1.225	1	.238	.171

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

Table 5

Students Self-reporting Feeling Depressed During the 2013, 2015, and 2017 School Years by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.071	.131	.295	1	.587	.931
	10th Grade	-.172	.136	1.596	1	.206	.842
	12th Grade	-1.272	.156	6.130	1	.652	.280

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

The statistical results for RQ2 are provided in tables 6 through 9. The findings of this research indicated the same results for research question two as found in question one. The results of the logistic regression indicated that while students in 8th, 10th, and 12th grades attending public high school in Summit County, Utah did report feelings of suicide ideation, the differences between grades from 2011 to subsequent years were not statistically significant. In 2017, the reports by 10th graders of suicide ideation approached significance ($p = .064$) when compared to survey responses from the 2011. However, these results fell short of the predetermined criteria and cannot be considered significant either. Therefore, the null hypothesis for research question two that there is no correlation between the frequencies of self-reported suicide ideation, by grade level, when comparing the frequency of responses from postCHA-driven mental health interventions to the frequency of responses from preCHA-driven mental health interventions in the youth attending public high school in Summit County, Utah cannot be rejected.

Table 6

Students Self-reporting Suicide Ideation During 2013 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.265	.274	.938	1	.333	.767
	10th Grade	-.106	.275	.150	1	.699	.899
	12th Grade	-1.966	.327	3.202	1	.551	.140

a. Variable(s) entered on step 1: 8th Grade, 10th Grade, 12th Grade

Table 7

Students Self-reporting Suicide Ideation During 2015 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.160	.265	.365	1	.546	.852
	10th Grade	-.445	.265	2.819	1	.093	.641
	12th Grade	-.266	.306	2.927	1	.099	.224

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

Table 8

Students Self-reporting Suicide Ideation During 2017 School Year by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	.168	.321	.275	1	.600	1.184
	10th Grade	-.370	.344	1.162	1	.281	.690
	12th Grade	-.772	.379	2.377	1	.524	.206

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

Table 9

Students Self-reporting Suicide Ideation During 2013, 2015, and 2017 School Years by Grade when Compared to 2011 Survey Responses

	Variable	B	S.E.	Wald	df	Sig.	Exp(B)
Step 1[a]	8th Grade	-.183	.161	1.293	1	.256	.833
	10th Grade	-.319	.166	3.709	1	.054	.727
	12th Grade	-1.632	.190	4.153	1	.188	.195

a. Variable(s) entered on step 1: 8th grade, 10th grade, 12th grade

One-way ANOVA

The one-way ANOVA was used to evaluate RQ3 and determine if there is a statistically significant difference between the frequencies of depressive episodes and suicide ideation in the youth (ages 14-18) of eastern Summit County and the youth (ages 14-18) of western Summit County when CHA-driven mental health interventions are

similarly applied. According to Frankfort-Nachmias and Leon-Guerrero (2015), the one-way ANOVA is an effective tool to determine statistical significance between the means of two or more independent groups, making it an appropriate statistical test to answer research question two. The one-way ANOVA analysis compared the survey results of 2011 to 2013, 2015, and 2017 individually. Next, survey results from 2011 were compared to the cumulative results from 2013, 2015, and 2017. The results of this analysis are provided below.

The number of regional survey responses by year used for the one-way ANOVA are provided in table 12. The frequency of survey responses indicates that the sample size met the parameters established by the G*power test. Additionally, table 12 provides the number of survey responses for each year by region. Some variation in the number of responses from year to year is present as indicated by table 12. Based on the sample size, this did not impact the results of this study.

Table 10

Frequency of Survey Responses by Geographic Region in Summit County and Year for Self-reported Depression and Suicide Ideation

		Regional Survey Responses by School Year				
		2011 *n*=453	2013 *n*=967	2015 *n*=928	2017 *n*=625	Total *n*=2973
Self-reported depression during the last 12 months	West Summit County	285 (33)	590 (105)	632 (118)	335 (66)	1842 (322)
	%	63.0 (11.6)	61.0 (17.8)	68.1 (18.7)	53.6 (19.7)	62.0 (17.5)
	East Summit County	168 (22)	377 (67)	296 (78)	290 (52)	1131 (219)
	%	37.0 (13.1)	39.0 (17.8)	31.9 (26.4)	46.4 (17.9)	38.0 (19.4)
Self-reported suicide ideation during the last 12 months	West Summit County	285 (27)	590 (65)	632 (86)	335 (57)	1842 (235)
	%	63.0 (9.5)	61.0 (11.0)	68.1 (13.6)	53.6 (17.0)	62.0 (12.8)
	East Summit County	168 (16)	377 (31)	296 (38)	290 (35)	1131 (120)
	%	37.0 (9.5)	39.0 (8.2)	31.9 (12.8)	46.4 (12.1)	38.0 (10.6)

Note: (*) indicates the number of positive responses for that question compared to the overall number of responses.

The results of the inferential analysis are shown in tables 11–15. The analysis showed that while there were differences in frequencies of self-reported depression and suicide ideation among students from eastern and western Summit County, those differences were not statistically significant. This interpretation is supported by F values at or near 1.0 and values of $p > 0.05$. This interpretation is shared across all years of the survey responses. Therefore, the null hypothesis of RQ3 that there is no correlation in frequencies of self-reported suicide ideation and depressive episodes between the youth (ages 14-18) of eastern Summit County and the youth (ages 14-18) of western Summit County when CHA-driven mental health interventions are similarly applied cannot be rejected.

Table 11

Students by Region in Summit County Self-reporting Feeling Depressed and Suicide Ideation for 2011 School Year

		Sum of Squares	df	Mean Square	F	Sig.
Self-reported feeling depressed in the last 12 months	Between Groups	.068	1	.068	.774	.379
	Within Groups	39.658	451	.088		
	Total	39.726	452			
Self-reported suicide ideation in the last 12 months	Between Groups	.120	1	.049	.653	.420
	Within Groups	66.623	623	.075		
	Total	66.744	624			

Table 12

Students by Region in Summit County Self-reporting Feeling Depressed and Suicide Ideation for 2013 School Year

		Sum of Squares	df	Mean Square	F	Sig.
Self-reported feeling depressed in the last 12 months	Between Groups	.165	1	.165	1.181	.277
	Within Groups	134.696	965	.140		
	Total	134.860	966			
Self-reported suicide ideation in the last 12 months	Between Groups	.054	1	.054	.667	.414
	Within Groups	78.297	965	.081		
	Total	78.352	966			

Table 13

Students by Region in Summit County Self-reporting Feeling Depressed and Suicide Ideation for 2015 School Year

		Sum of Squares	df	Mean Square	F	Sig.
Self-reported feeling depressed in the last 12 months	Between Groups	.057	1	.057	.351	.554
	Within Groups	151.042	926	.163		
	Total	151.099	927			
Self-reported suicide ideation in the last 12 months	Between Groups	.014	1	.014	.127	.722
	Within Groups	102.235	926	.110		
	Total	102.249	927			

Table 14

Students by Region in Summit County Self-reporting Feeling Depressed and Suicide Ideation for 2017 School Year

		Sum of Squares	df	Mean Square	F	Sig.
Self-reported feeling depressed in the last 12 months	Between Groups	.113	1	.113	.798	.372
	Within Groups	87.910	623	.141		
	Total	88.022	624			
Self-reported suicide ideation in the last 12 months	Between Groups	.120	1	.120	1.123	.290
	Within Groups	66.623	623	.107		
	Total	66.744	624			

Table 15

Students by Region in Summit County Self-reporting Feeling Depressed and Suicide Ideation for 2013, 2015, and 2017 School Years

		Sum of Squares	df	Mean Square	F	Sig.
Self-reported feeling depressed in the last 12 months	Between Groups	.008	1	.008	.057	.811
	Within Groups	361.210	2518	.143		
	Total	361.219	2519			
Self-reported suicide ideation in the last 12 months	Between Groups	.000	1	.000	.003	.954
	Within Groups	244.184	2518	.097		
	Total	244.184	2519			

Summary

This section presents the results provided by the analytical strategies used to analyze research questions one, two, and three of this study. Logistic regression was used to assess the relationships between grade level and depression and suicide ideation in youth attending 8th, 10th, and 12th grades in public high school between the years 2011 to 2017. Comparative analysis of data from 2011 was provided individually for each subsequent year (2013, 2015, and 2017) as well as cumulatively (all cases from 2013–2017). This approach provided an opportunity to evaluate the effectiveness of the CHA-driven interventions for each year the survey was given and for the time period selected. Collectively, the logistic regression analyses showed that the differences in the frequencies self-reported depression and suicide ideation between the 8th, 10th, and 12th grades grade students from 2011 to 2017 were not statistically significant. These findings

were mirrored in the year-to-year analysis as well. Therefore, the null hypothesis could not be rejected.

A one-way ANOVA was used to evaluate the variations in depression and suicide ideation between high school aged youth geographically separated by east and west in Summit County, Utah. To remain consistent with the analytical approach used for RQ1, the one-way ANOVA analysis was completed for 2011 and each year the survey was administered thereafter (2013, 2015, and 2017) and also included a cumulative test that compared all cases from 2013–2017 to 2011. The results of the one-way ANOVA test showed that the differences in frequencies of self-reported depression and suicide ideation between eastern and western Summit County were not statistically significant. Therefore, the null hypothesis could not be rejected.

Section four, the final section of this document, interprets the findings of section three. Section four references additional literature and provides a case for how these findings, although statistically insignificant, should be used to create social change and drive public health efforts to address mental health in the youth of all communities. Furthermore, section four provides a theory of how survey responses may have been influenced and suggestions for future research on the topic of mental health in affluent communities.

Section 4: Application to Professional Practice and Implications for Social Change

Introduction

The mental health of youth in America is rapidly deteriorating across all socioeconomic classes. Leading public health agencies (CDC, 2017; UN, n.d.; WHO, 2014), recent publications (Lê-Scherban et al., 2016; Schaefer et al., 2017), and textbooks on the subject (Levine, 2008) have identified mental health, especially of youth, as a major public health concern. Local public health agencies have assumed the bulk of mental health intervention activities and have employed traditional public health strategies, like the CHA, to help address mental health at the local level. Although these efforts have provided some success (Henderson et al., 2013), the majority of research supporting a conventional approach to mental health interventions has focused on children and youth from lower socioeconomic classes. According to Bor et al. (2014) and Fazel et al. (2012), these traditional public health efforts have proven effective in dealing with public health concerns for young people of low socioeconomic status. However, there is no evidence supporting the effectiveness of using established public health efforts to address the mental health of youth in affluent communities.

This section includes a formal interpretation of the findings and discusses the limitations of this study while providing suggestions for future research on the topic of mental health in the youth of affluent communities. Most importantly, this section includes the social and public health implications of this research and how it can be used to assist local public health agencies struggling to improve the mental health status of youth in affluent communities. These findings provide powerful evidence of how CHA-

driven interventions can improve mental health outcomes through increased reporting and a heightened awareness around depression and suicide ideation in the youth of affluent communities. Finally, this section concludes with a forecast of public health's important role in framing the future of mental health through the stewardship of evidence-based programs that merge science with social and political will.

The purpose of this quantitative study was to investigate the effectiveness of a CHA-driven intervention, a traditional public health approach, to reduce the self-reported frequencies of mental health status among the youth of affluent communities. This research provided evidence for depression and suicide ideation in the youth of affluent communities attending public high school where CHA- driven mental health interventions had been applied. Secondary data supplied by the SHARP dataset provided self-reported depression and suicide ideation information on the youth of Summit County, Utah for years 2011, 2013, 2015, and 2017. The current study evaluated self-reported depression and suicide ideation in youth by grade level (8th, 10th, and 12th grades) and by geographic region in Summit County before and after CHA-driven interventions were implemented. In doing so, these findings provide local public health agencies working in affluent communities with information that could be used to guide their efforts.

Logistic regression was used to evaluate if the differences in self-reported depression between grades from 2011 to subsequent years were statistically significant. The analysis was then run again to determine the differences between suicide ideation by grades for the same period. Additionally, a one-way ANOVA was used to determine if

the differences in self-reported depression and suicide ideation between eastern and western Summit County pre- and postCHA-driven mental health interventions were statistically significant during the selected time frames. All three analyses indicated that the differences in self-reported depression and suicide ideation between grades and geographic locations from 2011 compared to years 2013, 2015, and 2017, both individually and collectively, were not statistically significant ($p > 0.05$). These findings indicated that while individual youth are experiencing depression and suicide ideation at each grade level and in each year and region, the differences between for these conditions were not statistically significant. However, this research is still valuable for the public health professional working to create social change around mental health in affluent communities.

Interpretation of Findings

Statistical analyses determined that while there are students in Summit County suffering from depression and suicide ideation, the variation between grades (8th, 10th, and 12th grades) and geographic location were not statistically significant. As a result, the null hypothesis for all three research questions could not be rejected. These findings are in line with the findings of previous research presented section one. Unfortunately, all youth, despite socioeconomic position, geographic location, and grade level, are at risk for challenges related to mental health. However, this study was unable to determine if grade and location were predicting variables for mental health outcomes.

Suicide and Depression

According to Joffer et al. (2016), self-reported surveys completed by youth create challenges for researchers trying to compare self-perceived diagnoses to the actual clinical diagnoses. Individual perceptions, interpretations, and experiences can all bias how a survey respondent answers a single question. Additionally, self-reported disease rates can increase when individuals are made aware of the symptoms, risks, or presence of a disease within their community (Pursey et al., 2014). The number of students self-reporting depression and suicide ideation increased in the target population from 2011, preCHA driven intervention, to 2015, postCHA-driven intervention. A small decrease was noted between 2015 and 2017, but the proportion of positive responses remained similar during this period given the number of overall responses. This suggests that the CHA-driven interventions might not have been successful in reducing the number of cases of depression and suicide ideation. Another plausible interpretation is that the CHA-interventions increased awareness of these conditions among the youth, helping them identify their feelings and emotions associated with depression and suicide ideation. As a result, the reported number of cases postCHA-driven interventions might be more representative of the problem than what was reported preintervention in 2011.

Grade Level

The results of the logistic regression provided evidence that there was no association between the presence of depression and suicide ideation and grade level in the youth of Summit County based on preintervention survey responses when compared to postintervention survey responses. These findings were consistent for individual survey

years and collective survey years. In 2017, 8th grade students reported levels of depression that approached levels of significance ($p = 0.60$) when compared to response frequencies from the 2011 survey. This could indicate the problem is more prevalent among the newer student body just entering high school. If that is so, there could be a continued increase in the number of self-reported cases of depression among the younger students over the next few survey cycles. Entering high school can be a difficult and frightening event, which may lead to a higher rate of depression among 8th graders as they struggle to deal with the anxieties that accompany the transition from middle to high school.

Collectively, students in the 10th grade approached levels of significance ($p = 0.64$) for suicide ideation when compared to the response frequencies from the 2011 survey. Similar results were found in 10th graders during the 2015 school year ($p = .093$). This is of interest given that the 10th graders reporting in 2015 would have been given an opportunity to complete the survey in 2017, but an increase in positive survey responses was not found. Although both results were not significant based on the parameters established for this research, these findings help raise awareness about the declining mental health of 10th graders in affluent communities. Additionally, these results can help local public health agencies further investigate what might be different in 10th graders compared to other grades in affluent communities.

Geographic Location

The one-way ANOVA provided evidence that helped determine the difference of self-reported depression and suicide ideation between the youth of eastern and western

Summit County was not significant. With *f*-values near or below one (f = 0.003- 1.123) and *p* values well above 0.05, it was determined that youth in affluent communities, are at risk for poor mental health outcomes. These results support the findings of Bor et al. (2014), Elgar et al. (2016), and Luthar and Barkin (2012) that the youth of affluent communities are at risk of poor mental health outcomes. These findings thus provide local public health agencies with an understanding that, despite individual circumstances, mental health continues to be non-selective in who it affects. Wealth and resources do not provide protections to the children of affluent communities.

Applicability to Diffusion of Innovation Theory

The theoretical framework of the DOI theory can be used to evaluate how public health messaging disseminates throughout a community. The speed at which the messaging moves is dependent upon perceived value and the individual stages of adoption (Glanz et al., 2015). The stages of adoption are categorized into five groups labeled according to the time when the message was adopted. The progression through these five groups is what determines the effectiveness of the intervention messaging (Greenberg, 2006).

According to the DOI theory, innovators and early adopters are the first group to receive the messaging, but are the fewest in number, making up 15% of the target population. The early majority and late majority adopters comprise 68% of the target population. The remaining 16% are labeled as laggards and are the last group to adopt the messaging, if at all.

The messaging around mental health was initiated post-2011 when the CHA-driven intervention strategies were implemented. Although the messaging focused on mental health and discovering ways to manage depression and suicide, it appears these efforts worked to increase awareness. As individual youth became aware of mental health definitions, they were willing to participate in the effort to improve mental health and report individual circumstances by voluntarily taking the SHARP survey. This influx of new survey responses, as shown by the general increase in survey responses from 2011 to 2017, mirrors the DOI theory framework and the progression through the different stages of message adoption by the target population. While the intervention efforts did not have the intended outcomes, the messaging raised awareness and increased the number of "yes" survey responses each year. Therefore, based on the framework of the DOI theory, the trend of increased survey responses should continue in the coming survey years as the late adopters and laggards, who previously opted out of survey participation, choose to participate in the 2019 SHARP survey. As a result, future researchers can expect an even more comprehensive and robust dataset given the increase in the number of individuals who volunteer to complete the SHARP survey.

Limitations of the Study

Despite the quality of data and close adherence to the data analysis plan, the study had some limitations. Although the sample size for each survey year exceeded the required number as determined by the G*power analysis (n = 568), the fluctuation in overall survey responses warrants further discussion. One explanation for the fluctuation might be the change in how the survey was administered. Starting in 2015, the SHARP

survey shifted from a traditional paper survey to an electronic survey conducted on laptops and iPads (UDOH, 2018). This transition may have contributed to the changes in the numbers of survey responses and explain the increase between 2015 and 2017.

A second limitation of this study was the potential bias created by a heightened awareness of mental health among the parents and students after mental health intervention efforts commenced. Sterne et al. (2016) noted that public health intervention efforts could raise public awareness and increase reporting among the target population. As a result, the increase in reported rates may overshadow the effectiveness of public health efforts (Sterne et al., 2016). With students being empowered to identify and discuss mental health due to the intervention efforts, the change in positive survey responses may be the result of increased reporting and awareness, not necessarily the ineffectiveness of local public health intervention efforts initiated by the CHA.

The concerns with increased reporting are exacerbated by the potential saturation of responses from those with experience in mental health. Pursey, Burrows, Stanwell, and Collins (2014) reported that studies evaluating the successes of postintervention efforts are subject to response saturation by individuals in the target population who are hypersensitive to the subject matter based on an eagerness to contribute. While the increased participation is welcome, it does have the potential to skew research results (Shaw et al., 2015; Short et al., 2009). As the discussion surrounding mental health becomes socially acceptable, survey respondents interested in the mental health of Summit County are more likely to participate in the survey than individuals with a lesser interest. This is especially true given the voluntary nature of the SHARP survey. As a

result, this can lead to survey response saturation which could possibly misrepresent the public health problem and the effectiveness of intervention efforts.

Finally, the many social factors that influence mental health were not accounted for in this study. Gender, parental status, substance abuse, religion, and ethnicity have all been shown to impact mental health (Viner et al., 2012). This premise of this study focused on a presence-absence model using self-reported data without consideration for extrinsic factors that impact mental health. While this research was the first step toward addressing mental health in affluent communities, it was not a comprehensive overview of the many variables that influence depression and suicide ideation in youth. However, it does provide an avenue to enter the complex and dynamic field of mental health in the affluent youth demographic.

Recommendations for Future Research

This emphasis of this study was the first to evaluate the effectiveness of CHA-driven interventions on the youth of affluent communities by grade level and geographic location. These findings help identify the need for additional research on mental health in the youth of affluent communities. Future researchers should focus on identifying what variables directly contribute to poor mental health outcomes in the youth of affluent communities. An examination of all mental health challenges in the youth of affluent communities by gender, parental status, substance abuse, religious denomination, and ethnicity needs to be completed.

One such example could be the evaluation of challenges facing young men and women to gain a better understanding of the potential influence of puberty and

maturation on the mental health of affluent youth. While this research was unable to find significance in the variables selected, only a small subset of the variables known to influence mental health outcomes were considered. There is still the potential to harness the power of the SHARP dataset to evaluate the multitude of individual and social variables that influence mental health in affluent communities.

There is a growing body of evidence indicating increased rates of suicide in communities at higher elevations (Reno et al., 2017). Under the qualifying factors provided by Reno et al. (2017), the elevation of Summit County would qualify as being a risk factor for increased suicide ideation. While much of this research focuses on the community as a whole, specific research into how elevation might impact suicide ideation in the youth of affluent communities is warranted. Comparing rates of suicide and suicide ideation in the youth of affluent communities at sea level to the youth of affluent communities at elevations of 5000 feet above sea level may yield results that identify environmental factors that contribute to the mental health of youth in affluent communities. Building upon this growing body of evidence is a worthwhile effort that will assist local public health agencies working with affluent communities.

Implications for Professional Practice and Social Change

This study has shown that the presence of depression and suicide ideation among high school students in affluent communities cannot be teased out by grade or geographic location. Additionally, it has shown that CHA-driven interventions can increase self-reporting in affluent communities. While the limitation of response bias created by a heightened awareness may have contributed to the inability to draw strong conclusions

about the effectiveness of the CHA-driven interventions, this research still benefits local public health agencies by identifying ways the CHA process and DOI theory can be used to raise awareness in affluent communities.

Implications for Public Health Practice

While the 19th century marked the great 'sanitary awakening' for public health, the 21st century marks the expansion of public health into socially taboo fields like mental health, suicide, depression, and opioid addiction. This transition from traditional public health programs, like diabetes and tobacco cessation, to those that are socially taboo creates a challenge for public health practitioners. The new wave of public health challenges is non-selective and does not follow the social indicators, like socioeconomic status, access to health care, and ethnicity, that are typically linked to reduced health outcomes. Instead, all youth from all demographics are at risk for these new challenges, which causes already thin public health resources to be spread even thinner. However, public health will be challenged to find a solution at all federal, state, and local levels of government.

The results of this research confirm that health agencies in affluent areas can no longer assume that families with wealth and resources are not at risk for mental health challenges. These findings provide evidence of mental health concerns in the youth of affluent communities and further the need for local public health agencies to determine the specific risk factors within their communities. This study determined that the differences in self-reported depression and suicide between grades and geographic locations were insignificant. However, this study also confirmed that there are youth

struggling with serious mental health problems every day. It should be expected that mental health will continue to challenge public health. As a result, local public health will continue to have a role in mental health using the results of studies like this one to direct their efforts.

Implications for Positive Social Change

Positive social change occurs when the political and social wills merge with science. This merger occurs as awareness lends way to public acceptance of the problem at hand. From a public health standpoint, the result of this successful partnership is disease control and eradication. However, this partnership must be amenable to all levels and branches of the social structure. Although public health bears the majority of the responsibility for education and awareness, there is also a social responsibility for creating positive change. Local policymakers and community leaders must recognize the problem at hand, become familiar with it, and accept the challenge that lies ahead. However, this cannot be accomplished unless the right individuals are given the proper instruments to guide the discussion.

For lasting social change to occur, it is imperative that research, much like this study, be used to direct changes in how society views mental health. Messaging that mental health can be managed much like physical health is key to social change. This starts with data and evidence that place the interests of public health at the forefront of the political discussion. Policymakers must be empowered to make decisions that benefit their communities while remaining fiscally responsible. Without any one piece of the equation, the likelihood of lasting, long-term change is unlikely. This study provides

local leaders with evidence of an existing problem and promotes the creation of policy that drives permanent change while minimizing the stigma associated with mental health.

While there is a definite political responsibility to allocate resources capable of creating change, society must also be held accountable for evoking positive social change around mental health. The presence of one child suffering from depression or suicide ideation in any community exceeds the allowable social threshold. For families with children struggling with mental health, any research into the problem brings the hope of a brighter future. Additionally, it helps families understand that their youth are at risk, despite the resources and wealth that might be available. These findings can help parents take a keen interest in the mental health of their children. Additionally, the heightened awareness created by the CHA intervention efforts can remove the stigma assigned to mental health by creating opportunities for discussions about suicide and depression in communities where they have been ignored. Although public health practitioners will continue to work diligently to address mental health at the community level, the fulcrum that balances mental health is based in the home.

Conclusion

Historically, public health agencies were developed to conduct and enforce sanitation. Now, public health has evolved into a field that includes all aspects of population health. Looking to the future, the constant evolution of public health is demonstrated by the declaration that mental health is a significant public health concern included under the public health umbrella. However, this addition should come as no surprise given the success of public health programming. Reiss (2013) contends the

declaration of mental health as a public health epidemic is a turning point in the battle against suicide and depression. With its variety of programs, public health continues to experience success in managing infectious diseases and sanitation. When considering mental health, similar outcomes should be expected.

Modern public health has been shaped by two factors: the growth of scientific knowledge specific to controlling disease and the growth of public acceptance (Institute of Medicine, 1988). The factors that contributed to this growth were accomplished by providing sound evidence that gained social favor. As a result, public health has been able to strategically approach disease control and prevention with time-tested and refined processes. The structure provided by the theory-based approach has been key to the success of public health.

To continue this trend of success in mental health, public health practitioners must avoid disarray in program development. The success of the past must be used to direct future public health efforts. By addressing gaps in data gathering, analysis, and evidence-driven programs, the discipline of public health can align current efforts with historical successes to improve mental health outcomes. It is the responsibility of public health to provide the evidence that drives policymakers to action and community leaders to campaign for change. To achieve this objective, public health will need to serve as a catalyst for private efforts and initiate high-level health functions that only local government can perform. Once these duties align, public health will assume its role as the unquestionable leader in mental health.

The virtual elimination of many infectious diseases provides ample evidence of the effectiveness of public health measures that join scientific knowledge with effective social action. Improvements in mental health status must be the result of public health activities based on vigorous, scientifically competent, politically astute, comprehensive, and sustainable public health capacity. Good, effective public health happens when science merges with political will. Studies, no matter the size or the results, provide insight that encourages this union. Despite the political influence, public health is still a social and science-driven field. Research must be the foundation that pushes public health and mental health forward. While this study was unable to find significant variables that contribute to poor mental health in the youth of affluent communities, it has helped to determine and define the social significance of the problem. As a result, it can be used by local public health agencies to help build a foundation that will continue the proud tradition of success in public health practice as practitioners face the challenges presented by mental health.

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