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A Case Study On Promoting A Healthy School Culture To Combat Childhood Obesity And The Role Of The Principal

Nancy Torres
University of Texas at El Paso

A CASE STUDY ON PROMOTING A HEALTHY SCHOOL CULTURE TO COMBAT CHILDHOOD OBESITY AND THE ROLE OF THE PRINCIPAL

NANCY TORRES

Doctoral Program in Educational Leadership and Administration

APPROVED:

Isela Peña, J.D., Ed.D., Chair

Arturo Olivarez, Ph.D.

Rodolfo Rincones, Ph.D.

Monica Reyes, Ed.D.

Stephen L. Crites, Jr., Ph.D.
Dean of the Graduate School

Dedication

To those who need to believe.

Have patience.

Persevere.

There is always hope.

A CASE STUDY ON PROMOTING A HEALTHY SCHOOL CULTURE TO COMBAT CHILDHOOD OBESITY AND THE ROLE OF THE PRINCIPAL

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NANCY TORRES, BS, MS

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Abstract

Obesity is leading cause of death worldwide. Childhood obesity has jumped to 22.4% in 2020 from 19.3% in 2019. One-third of children are overweight and obese, with an approximately 66% chance of becoming an obese adult. The costs of obesity are to overall health: financial, physical, social, and emotional. Obesity affects students at school, a point of service. Therefore, the purpose of this study was to examine what efforts has the principal undertaken to address childhood obesity in a Title I elementary school on the US-Mexico border and how these efforts helping to define and shape the school's culture. This study was a qualitative, intrinsic case study, with semi-structured interviews and observations used to collect the data. A purposeful sample was selected using the Coordinated School Health Team, which consisted of the principal, the team champion, the nurse, the counselor, the wellness coordinators, and the physical education/health teachers. Those interviewed provided insight on the principals actions and development of the school culture. The results of the study provide themes of leadership attributes, role modeling, and knowledge. Leadership attributes were an actively engaged leader that provided a safe environment that is supported through guidance, resourcefulness, positive interactions, in a team approach setting that brings out the teachers' natural talents and ideas related to overall health. Role modeling demonstrated a value for a healthy lifestyle, with campus activities and teacher wellness approaches as the initial step. Knowledge was the last theme with education used to reduce stigma and learning about an active and overall healthy lifestyle within the school, home, and community. A concluding discussion shared implications, recommendations, future research, and takeaways to assist other schools with creating a similar healthy school environment, with the principal as the prominent influence with a team approach on overall health.

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Chapter 1: Introduction

Obesity is an overwhelming problem in the United States. The most current report on obesity prevalence indicates a rate of 41.9% in 2017-2020, which highlights an increase from 30.5% in 1999-2000 (NHANES, 2021). According to the 2017-2018 National Health and Nutrition Examination Survey, almost one-third of adults, 30.7%, are overweight, while more than two-fifths, 42.4%, are obese. Additionally, 1 in 11 adults are classified as severely obese. Further, 16.1% of children and adolescents aged 2 to 19 are overweight, 19.3% are obese, and 6.1% are severely obese. This means that 1 in 6 children are overweight, 1 in 5 are obese, and 1 in 16 are severely obese. Obesity alone is predicted to affect 25% of all children under 16 years by the end of 2050 (Swanton, 2008). Simulations of the obesity epidemic illustrates the repercussions on overall health and ultimately life expectancy. Childhood obesity can profoundly affect children's physical health, social, and emotional well-being, and self-esteem. It is also associated with poor academic performance and a lower quality of life experienced by the child (Sahoo et al., 2015).

Due to the rise in childhood obesity over the past three decades, research shows that generations will suffer the burden of obesity for a larger proportion of their lives than past generations (Lee et al., 2010; Olshansky et al., 2005; Stewart et al., 2009). This reasoning infers that a child's overweight or obesity status will continue into adulthood, with 23 identified studies showing the tracking into adulthood of higher BMI, overweight, and obesity present in childhood (Rundle et al., 2020).

Problem Statement

Since obesity is a global public health issue that impacts child health, with several short and long-term consequences, an urgent response is needed by all (World Health Organization, 2019). Childhood obesity can affect the child's overall health, including their physical, social, and

emotional well-being. Childhood obesity is also associated with poor academic performance and a lower quality of life (Rundle et al., 2020). There are numerous factors contributing to childhood and adolescent obesity including gender, biology, geographical and socio-economical aspects, amongst others (Saliba & Cuschieri, 2021). Socio-cultural factors have also been identified as a cause of obesity (Park & West, 2019). The Youth Risk Behavior Surveillance System (YRBSS) shows students' percentages of 64.9% low PE participation, 22.9% physically active for at least 60 min, 46.1% high computer usage, 20.9% high TV watching, 19.5% high soda consumption, 18% no breakfast, 8.8% low fruit consumption, and 11.5% low vegetable consumption. The U.S. society cultivates a use of food as a incentive, as a means to control others, and a way to socialize with others (Sahoo et al., 2015). Family influences have also been linked with the upsurge of obesity (Balantekin et al., 2020; Sahoo et al., 2015). The kinds of food accessible in the household, food partialities of adult family members, family mealtimes, and typical family portion sizes can control the foods that children eat. Family routines of being sedentary or physically active, can influence the weight of a child (Budd & Hayman, 2008). Studies have shown that having an overweight mother and living in a single-parent household are associated with overweight and childhood obesity (Moens et al., 2009). Involving the child and having parents focus on physical activity, dietary habits, and lifestyle behaviors are key to a healthy household because families play an immense role in increasing the risk of developing childhood obesity (Valdés et al., 2013).

Schools can intervene with support from families and the school community, and principals can take the lead. Current approaches to combatting childhood obesity are moving to increase parental involvement to alter the family environment to assist with accomplishing child behavior change (Ruiter et al., 2020; World Health Organization, 2019). Schools are a pathway to reach adults and children. Family-level changes require integration into schools, communities, and

socioeconomic actions (Ebbeling & Antonelli, 2015). Therefore, many people need to be involved in a child's life to change the family. Principals impact school culture due to their leadership role in the campus, therefore impacting teachers, students, families, and the community (Wallace Foundation, 2021). Schools should be involved in community efforts by establishing and implementing standards that proactively promote healthy eating and drinking through education and the creation of healthy eating environments (Story et al., 2008). Schools can play a pivotal role in addressing the issue of childhood obesity with the capability to integrate and discuss healthy habits in schools, a child's place to learn (Wechsler et al., 2004). Hence, the prevention of childhood and adolescent obesity requires an integrated multi-component approach (Koletzko et al., 2020; World Health Organization, 2019). The importance of change at the school level begins with the principal.

Purpose and Research Questions

The purpose of this study is to explore the efforts of a principal at a Title I elementary school on the U.S.-Mexico border to develop and sustain a culture of addressing childhood obesity. The research questions guiding this study are:

1. What efforts has the principal undertaken to address childhood obesity in a Title I elementary school on the U.S.-Mexico border?
2. How are these efforts helping to define and shape the school's culture?

A closer look at the principal was taken from the lens of the Coordinated School Health (CSH) team. The CSH team is made up of several people at the campus, promoting whole child education, including the principal, the champion, the nurse, the counselor, the nutrition services manager, the physical education and health teachers, and the wellness coordinators. The semi-structured interviews and observations of the breakfast service, lunch period, and physical

education classes were conducted in the Fall of 2023. During the observations, I observed the principal's behaviors and interactions on campus before, during, and after the interviews, looking for overall attributes, initiatives, and actions. In addition, I observed behaviors, conversations, and interactions of support staff with each other and with the students.

Context of the Study

My study took place at Believe Elementary School (a pseudonym), which is in the School District (SD). The SD is one of the most recognized and fastest-growing school districts on the U.S.-Mexico Border and is in the County (a pseudonym), Texas. SD is in a rural incorporated area with a predominantly minority population and an economically disadvantaged area.

County is the largest U.S. city on the U.S./Mexico Border, 2nd in the Southwestern U.S., the 6th largest city in Texas, and the 23rd largest in the U.S. County, Texas, is located on the U.S.-Mexico border with a population of 865,657. Approximately 81% of the population is Hispanic, the 2nd largest majority-Hispanic (DSHS, 2014). County is also considered economically disadvantaged with one-quarter of the population below the federal poverty line. County is listed as having the highest poverty rate in the country in the Chamizal Report. (Community & Human Development Department Neighborhood Service, 2008). Also, 27.2% of adults and 17% of children in County are obese (U.S. Department of Health and Human Services, 2014). Comparing the current statistics to the state and the nation as well as several years ago, County is under the rates.

Numerous projects in County have been focused on health issues. The Paso del Norte Health Foundation (2023) is one entity that has supported many of these projects that disseminate information to school campuses, teach the community about healthy cooking and physical activity that is easy to do through CATCH County, Que Sabrosa Vida, and Walk County. Studies have

also been conducted in County to see if initiatives are working. The Paso del Norte Health Foundation also supports the School Physical Activity and Nutrition (SPAN) study that examines regional changes with programs in grades 4, 8, and 11. County was the largest county in SPAN study at that time (UTHealth School of Public Health, 2006).

The Paso del Norte Health Foundation's (2023) vision is to ensure that the people in our binational, tri-state region have the knowledge, resources, support, and environment to live happy, healthy, and productive lives. PDNHF is a supporting organization of the Paso del Norte Community Foundation. The Paso del Norte Health Foundation operates in a unique binational environment, which stretches across two countries and three states. This region serves the 2.4 million people living in far west Texas, in southern New Mexico, and the metropolitan area of Cd. Juárez, Chihuahua, Mexico (PDNHF, 2023). More recently, the Paso del Norte Health Foundation (PDNHF) funded the Institute for Healthy Living, whose leadership focuses on policymaking and environmental changes to improve access to healthy, affordable food and safe, accessible places to be physically active (PDNHF, 2023).

Several studies by Dr. Karen Coleman on the CATCH Program have also shown success in helping with plateauing the rate of childhood obesity (Coleman, 2006; Coleman et al., 2005; Health & Coleman, 2002, 2003:). Through the U.S.-Mexico Border Office of Pan American Health Organization (PAHO, 2005) and the Pan American Health and Education Foundation (PAHEF), County secured a $360,000 RWJ Foundation Grant, Healthy Kids, and Healthy Communities (HKHC, 200) (Donaldson, et al., 2014). This is a program that supports community action to prevent childhood obesity and to improve conditions for low-income children. The project was conducted in the Chamizal area, which is one of the oldest and poorest in the city. The International Bridge of the Americas, one of the busiest international border crossings along the U.S.-Mexico

border, is adjacent to the Chamizal Neighborhood. This adds to the traffic in and around the neighborhood, and unfortunately, the traffic is not limited to automobiles (Donaldson, et al., 2014). Residents move in and out of the neighborhood, due to the vast majority of the Chamizal Neighborhood being made up of rental housing, making it difficult to commit to the stability and improvement of the neighborhood. The estimated per capita income in the Chamizal Neighborhood is $12,506 compared to $30,968 in County, $32,205 in the County and $42,139 in the State of Texas (Donaldson, et al., 2014). A lack of youth activities, dilapidated housing conditions, and criminal activity were some of the issues raised by residents, property owners and stakeholders through public meetings and a survey conducted by the University of Texas El Paso's Center for Civic Engagement (Donaldson, et al., 2014). Food and physical activity environment assessments, as well as walkability and mobility assessments, were done to see what El Paso's key health needs are. Another local project called Plan County (2010) is also an initiative that helps develop policy recommendations for a healthier food system and venues for physical activity.

Project Vida is another advocacy group where youth leaders help to address health inequities, with smaller projects for the club like cleaning neighborhoods and making a community garden. Project Vida's mission is to identify the comprehensive vision of the community for its future and to develop community-based structures and programs to implement that vision considering the needs and direction of the wider society. Project Vida began in 1991 in a small adobe home in the Chamizal neighborhood of south-central County. This group has addressed issues by building affordable low-income rental housing; building clinics and providing high-quality, low-cost healthcare; creating a homelessness prevention and recovery program; developing a best practice, curriculum-based early childhood education program; offering dynamic after-school enrichment and providing microenterprise technical assistance and support. Much

effort has been put into the County region based on the population, and County seems to be utilizing the resources to keep the obesity rates under Texas rates (Project Vida, 2015).

Significance

A closer look at Title 1 schools in border cities with high poverty populations need to be researched to help develop effective interventions to combat childhood obesity. The border region between the United States and Mexico is a 10-state region with core health issues including cardiovascular disease, excessive weight, obesity, and diabetes (U.S.-Mexico Border Health Commission, 2020). The U.S. Mexico border has a prominently Hispanic population, that is at a increased risk for obesity in high poverty areas (Do & Frank, 2020). It is estimated that 5.3 million adults are overweight or obese. Among the obese, 1 million live on the Mexican side of the border, and 1.5 million on the U.S. side (PAHO, 2005). In 2018, Hispanic women were 20 percent more likely to be overweight as compared to non-Hispanic white women with 78.8% being overweight or obese, compared to 64% of non-Hispanic white women. From 2013-2016, Hispanic children were 1.8 times more likely to be obese as compared to non-Hispanic white children. In 2017, Hispanic high school students were 50 percent more likely to be obese as compared to non-Hispanic white youth (USDHHD Office of Minority Health, 2020). Adults who are obese, tend to have children who are obese due to family impacts. Childhood obesity has an impact academic achievement. Therefore, to decrease childhood obesity and increase academic success a closer look at this area is needed to see the best practices to support a healthy school environment, which can serve (Martin et al., 2017).

Schools serve as an important point of service for helping children develop healthy behaviors since students are required to be in school approximately 180 days a year. School personnel, especially principals, can influence a school culture, mission/vision, teaching, and

curricular expectations (Lee & Louis, 2019). The culture built can lead to schools that address the fight against childhood obesity. But obesity prevention programs are rarely used in U.S. schools (Kenney et al., 2017). Research has not really examined the principal's role in creating a culture that can impact the fight against childhood obesity (Price et al., 1987). Research has not really examined the principal's role in creating a culture that can impact the fight against childhood obesity (Price et al., 1987). This research seeks to fill this gap by examining leadership practices that promote healthy schools.

Schools should have a comprehensive, multifaceted approach to send students the same healthy messages from several angles. Children who are currently at a healthy weight can also benefit from preventive interventions, so all children can benefit. But based on simulations, children who are overweight and obese are expected to continue to suffer from obesity if no intervention is in place (Brown et al., 2015). School interventions have included changes in policy and programming as well (Pyle et al., 2006). Given the high risk posed to children, professionals need to work to identify and implement effective strategies and cost-effective interventions focused on preventing excessive weight gain at an early age by providing opportunities for healthier foods, beverages, and physical activity within early care and school settings. These interventions are projected to save more in future healthcare costs than they cost to implement (Ward et al., 2017).

Childhood obesity is directly impacting children and schools. The U.S. offers many opportunities for developing obesity prevention strategies through school by focusing on school food environments and policies, school physical activity environments and policies, school body mass index measurements, and school wellness policies (Story et al., 2009). Several professional organizations also support the efforts of combatting childhood obesity by funding, tools, and

resources. They also provide insights and expertise, strengthen research, disseminate findings, and communicate with researchers and practitioners (NCCOR, 2023; Obesity Action Coalition, 2023; Shape America, 2023; TAHPERD, 2023).

School health services can also help address obesity by providing screening, health information, and referrals, especially with low income, underinsured students, who do not receive health services elsewhere (Story et al., 2006). Schools can help attendance and academic performance by identifying students without insurance, help them obtain insurance, and refer to a school-based opt community-based provider (CDC, 2017). Schools are also managing chronic conditions, direct care, such as giving medications, providing case management, and advocating for students and families to help get the resources and support they need. School nurses can decrease absenteeism and improve academic performance. Daily school attendance is strongly associated with standardized test scores and graduation rates, and lower dropout rates. Students with chronic conditions need the support. Schools need to advocate for a school-wide approach for health status checks, identifying barriers, and access to medical or mental health providers. All this will help address chronic tardiness, early dismissal, absences, and chronic absenteeism, and provide a feeling of safety at school (CDC, 2017).

Consistent and innovative health reporting to collect data for quality improvement is essential. School nurses can also advocate and provide case management. This is strongly needed during these developmental stages (CDC, 2017). About 25% of children aged 2-8 have a chronic health condition, including asthma, obesity, physical conditions, and behavior or learning problems (Van Cleave et al., 2010). Texas Senate Bill 6 allows students to rely on school nurses or school-based health centers because of the barriers to healthcare access.

Schools, starting with the principal's leadership need to plan a support system for the student's needs. Establishing healthy behaviors during childhood is easier and more effective than trying to change unhealthy behaviors during adulthood. Therefore, schools and school principals play a critical role in helping children develop lifelong healthy habits. Each day 132,000 schools provide a setting for 55 million students to learn about health and healthy behaviors (CDC, 2022). Children with unhealthy behaviors or chronic health conditions may face lower academic achievement, increased disability, fewer job opportunities, and limited community interactions as they enter adulthood. They may miss more schools, which reduces their opportunities and time for learning. Schools, via principal leadership can help children and adolescents improve their dietary and physical activity behaviors and manage their chronic conditions. Principals can create healthy environments for students by using practices and policies that support healthy eating and regular physical activity and by providing ways for students to learn about and practice these behaviors. Healthier behaviors not only prevent chronic diseases, but they are also linked to academic achievement and success (CDC, 2022).

The Whole School, Whole Community, Whole Child model brings together health, public health, education, and school health sectors to improve health and learning (CDC, 2023). Successful well-coordinated school health programs demonstrate productive relationship between administrators, teachers, parents, students, school board members, and community leaders (NACDD, 2017). They develop an action plan for their campuses with a coordinated approach with well researched and effective guidance and support to help improve school health services, policies, and practices. Healthier nutrition environments, comprehensive physical activity, management of chronic conditions, quantity and quality physical education and physical activity with strength and endurance, build healthy bones and muscles, to control weight and reduce

anxiety and stress (Kohl & Cook, 2013). Schools, through a positive school health culture with the principal's lead, and the use of the CSH team, are an excellent place to develop skills for understanding and avoiding conditions like obesity, diabetes, asthma, to make smart food choices, promote exercise to build strong fit bodies, and monitor health with chronic conditions like diabetes, asthma, and food allergies. If schools improve health and reduce absenteeism, students will become better learners, due to fact that they will be in school learning (Basch, 2011).

Some of the most startling facts are that 1 in 6 children and adolescents ages 2 to 19, 16.1% are overweight and 1 in 5 children and adolescents ages 2 to 19, 19.3% are obese (Fryar et al, 2020). Obesity is highly associated with an imbalance of dietary intake and energy output (Center for Disease Control and Prevention, CDC, 2013). This balance will help maintain an appropriate body composition for a healthy weight. A healthy diet consists of a balance of carbohydrates, proteins, and fats with the essential vitamins, minerals, and water; while the types of exercises needed are aerobic building, muscle strengthening, and bone strengthening (USDA, 2020). Physical inactivity is linked to many devastating physiological effects on the human body such as cardiovascular disease, stroke, Type II diabetes, hypertension, high cholesterol, premature death, and certain types of cancer increase along with health care costs (Telford, 2007). The National League of Cities (NLC) is an organization working with the U.S. Department of Health and Human Services, the U.S. Department of Agriculture, and the National Association of Counties, collecting data and supporting the Let's Move movement from former First Lady Michelle Obama (NLC, 2023). This group is also implementing policy and environmental changes to help prevent childhood obesity. The role of sleep health and insufficient sleep has been linked to chronic diseases, including type 2 diabetes, cardiovascular disease, obesity, and depression (Kasasbeh et al., 2006; Knutson et al., 2006; Schwartz et al., 2005; Taheri, 2006). Social determinants of health

are social and structural conditions where we live, learn, work, and play. This includes infrastructure and capacity, policy and law, data and surveillance, evaluation and evidence building, partnerships and collaboration, and community engagement (Healthy People, 2030). The burden of health care and children's health has shifted away from the family toward the government and policymakers. More and more, these lawmakers have begun to recognize that a population that is obese costs work hours and burdens the healthcare system. Recent research has once again pushed the spotlight on childhood obesity. The federal-level *Richard B. Russell National School Lunch Act* (79 P.L. 396, 60 Stat. 230) in 1946 created the National School Lunch Program. This set a federal precedent of the federal government impacting and influencing the health of the nation's children. As a result, researchers and policymakers have reasoned that schools can have an impact on children's health and childhood obesity and principals can be that key role to build a nurturing culture of combating childhood obesity. Therefore, a closer look at this area is needed to see the best practices to support a healthy school environment, which hopes to decrease childhood obesity and increase academic success.

Chapter 2: Literature Review

My literature review is organized around four themes: (a) obesity, (b) practice and policy, (c) childhood obesity and schools, and (d) leadership impact. The first section will examine the problem of childhood obesity, including what obesity and childhood obesity are, its costs, and key indicators. The second section on practices and policy will include federal and national educational policies, national organizations involved, obesity and state practices, policy, legislation, coordinated school health, and local initiatives. Next, I will include a review of childhood obesity in schools that will include the history of physical education, the Shape of the Nation Report (2016), quality physical education (PE), effective physical education, benefits of physical education, and local initiatives in County, Texas. Finally, I will conclude with a review of leadership topics, effective school movement, leadership implementation, and the impact that educational leadership may have on decreasing childhood obesity and increasing child health. A look at schools may show that leadership can be the advocacy needed to lead this fight against childhood obesity.

Obesity by the Numbers

Obesity is one of the leading causes of death worldwide with 1.9 billion adults being overweight in 2016 and 650 million considered obese (WHO, 2020). Obesity in the United States increased from 30.5% in 1999 to 42.4% by 2017 (CDC, 2020) with chronic illnesses of diabetes and cardiovascular disease among the top causes of death in the U.S. (Raghupathi & Raghupathi, 2018). The CDC (2021) Adult Obesity Prevalence maps show all states above 20% of adults with obesity, 20% to less than 25% of adults had obesity in the District of Columbia, 25% to less than 30% of adults had obesity in 8 states, 30% to less than 35% of adults had obesity in 22 states and Guam, 35% to less than 40% of adults had obesity in 17 states, Puerto Rico and Virgin Islands,

40% or more adults had obesity in 2 states (Kentucky and West Virginia), and the South (36.3%) had the highest prevalence of obesity, followed by the Midwest (35.4%), the Northeast (29.9%), and the West (28.7%). During the same time, the prevalence of severe obesity increased from 4.7% to 9.2%. (NHANES, 2021). Results from the 2017–2018 National Health and Nutrition Examination Survey (NHANES), using measured heights and weights, indicate that an estimated 42.5% of U.S. adults aged 20 and over have obesity, including 9.0% with severe obesity, and another 31.1% are overweight (Fryar et al., 2020).

Furthermore, the number of states in the country that have an obesity rate of more than 35% has doubled since 2018, according to the CDC. As of 2020, nearly 36% of adult Texans are obese, according to data from the Centers for Disease Control and Prevention (CDC). The new CDC study shows that Texas has joined 15 other states in the country with an obesity rate over 35%, which also include: Alabama, Arkansas, Delaware, Indiana, Iowa, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Ohio, Oklahoma, South Carolina, Tennessee, and West Virginia. The number of states that fit these criteria has nearly doubled since 2018, up from nine states in 2018, and 12 in 2019. When we examine the prevalence of obesity among adults by public health region (PHR), in 2018, according to the Texas Behavioral Risk Factor Surveillance System (BRFSS), Center for Health Statistics, Texas Department of State Health Services, County is in PHR 10 with 34.9%.

When we consider the overall prevalence of leisure time and physical activity in Texas, this tells us if adults 18 and older participated in the last month in physical activity or exercise other than their regular job. This percentage states participation in any physical activity such as running, calisthenics, golf, gardening, or walking for exercise. This is important because adults who are physically active can reduce obesity and other chronic health conditions like hypertension,

diabetes, and certain types of cancer in addition to anxiety, depression with an increased overall well-being and sleep. More than 60% U.S. adults do not engage in the recommended amount of physical activity and 25% of adults are not active at all.

During the past four decades, childhood obesity rates in America have quadrupled with more than 23.5 million children and youth in America, nearly 1 in 3 classified as overweight or obese. According to the National Survey of Children's Health, in 2018, youth obesity rates for children 2 to 9 years was 19.3%. In 2020, obesity rates for youth ages 10 to 17, were roughly 1 in 6, at 16.2%. Non-Hispanic Asian youth had the lowest rate of 8.1%, followed by non-Hispanic white youth with 12.1%, while non-Hispanic Black youth were significantly higher with 23.8%, Hispanic youth at 21.4%, and non-Hispanic American Indian/Alaska Native with 28.7%. Obesity rates ranged from 8.6% among youth in the highest income group to 23.1% among youth in the lowest income group. Substantial disparities exist with more than 39% of Hispanic and Black youth, ages 2 to 19, being overweight or obese, compared to approximately 28% of White youth (Ogden et al., 2012). Communities with high levels of poverty and lower education levels are significantly less likely to have places where people can be physically active, such as parks, green spaces, bike paths, and lanes (Moore et al., 2008).

Texas ranks 8th (2019) in the nation, with a 20.3% obesity rate for youth 10-17, 11th with 15.9% obesity rate for ages 2-4 participating in WIC, 11th with 16.9% obesity rate of high school students, 12th with 35.8% obesity rate in adults, 12th with 12.2% obesity rate of adults with diabetes, and 12th with 31.7% obesity rate of adults with hypertension. This is important because overweight and obese children are likely to stay obese into adulthood and more likely to develop non-communicable diseases like diabetes and cardiovascular diseases at a younger age (Sahoo et al., 2015). Type 2 Diabetes and coronary heart disease begin in childhood, with childhood obesity

serving as an important factor (Bhave, et al., 2004). The current stats show one in five children and more than one in three adults live with obesity, with children living with obesity more likely to become obese adults (CDC, 2022).

Table 1: 2019 Texas Ranks in the Nation for Obesity Rates

Ranks	Obesity Rates	Age Groups
8th	20.3%	youth 10-17
11th	15.9%	ages 2-4 participating in WIC
11th	16.9%	high school students
12th	35.8%	in adults
12th	12.2%	adults with diabetes
12th	31.7%	adults with hypertension

Source: Trust for America's Health (TFAH, 2019).

The increase in the obesity rate among youth in 2019 to 2020 jumped from 19.3% to 22.4% (State of Childhood Obesity, 2022). Based on the 1992-2008 data from the Behavioral Risk Factor Surveillance System (BRFSS), It is predicted that by 2030, 51% of the US will be obese, costing $549.5 billion, showing a 33% increase in obese prevalence and a 130% increase in severe obese prevalence over the next two decades. (Finkelstein et al., 2012). Serdula (1993) looking at data from 1970 to 1992, found that one-third of obese preschoolers were obese adults, and around half (42-63%)of obese school-aged children were obese adults. The study showed that the risk of adult obesity was at least twice as high for obese versus nonobese children and greater at higher levels of obesity, with even greater levels for those who were obese at older ages (Serdula, 1993). The 2030 predictions and Serdula's (1993) demonstrate the importance of starting prevention of obesity during childhood, making efforts undertaking at school critical at helping fight this growing health issue.

Statewide data reflects that in Texas, one-third of children are overweight and obese, with approximately a 66% chance of becoming an obese adult, which negatively impacts their health and their school productivity (Arons, 2011). This rise in obesity also increases health expenses in childhood (Arons, 2011) by putting children at a higher risk of developing diseases typically seen in adulthood during their childhood, such as hypertension, high cholesterol, diabetes, stroke, and cancer. (BRFSS, 2019). Obesity and the high risk of developing the health conditions listed above remains with these children as they become adults. Body Mass Index (BMI) and other factors that may be the sources of obesity in Texas include dietary behaviors, nutrition knowledge and attitudes, and physical activity. The School Physical Activity and Nutrition (SPAN) study showed the overweight/obesity rates in the 2004-2005 school year for 4th, 8th, and 11th graders, at 42%, 39%, and 36%, respectively. Hispanic children were shown to have the highest rates, with 47% in 2007 compared to 26% Black, and 23% White (Arons, 2011). Hispanic boys and Black girls had the highest rates of obesity (Arons, 2011). These startling numbers were due to the rapid increase of Hispanics in Texas (Arons, 2011).

The Texas Department of State Health Services (2010) predicts that if current trends continue, by 2040, 75% of all Texas adults might be overweight or obese. About 25% of children aged 2-8 have chronic health conditions, such as asthma, obesity, physical conditions, and behavior or learning problems (Van Cleave et al., 2010). Studies of childhood obesity show the rising problem, tripling in number since the 1970's (Fryar et al., 2014). Obesity-related medical costs are expected to increase considerably since today's obese children are likely to become tomorrow's obese adults (Marder & Chang, 2006).

The Childhood Obesity Intervention Cost-Effectiveness Study, CHOICES (2017), reviewed six recommended strategies, using cost-effectiveness analysis to prioritize policy and

programmatic approaches to physical activity promotion and obesity prevention in childhood. The CHOICES study for prevention strategies out of Harvard T. H. Chan School of Public Health showed adults and children in the U.S. consume more calories from foods and beverages than they are spending. The study showed little attention has been paid to identifying solutions that not only work but deliver the best results for the dollar. Some of these can even produce cost savings focused on identifying these cost-effective interventions in four key settings: school, early care, and out-of-school time, clinic, and community. A cost-effective analysis over 10 years using a microsimulation model considers the costs necessary to carry out the program implementation and any health care costs. This study helps cities and states prioritize the next steps for a policy or program intervention, explain the effects of policy, guide investments, identify cost-effective and effective strategies and encourage partners to support and fund.

The Centers for Disease Control and Prevention's Behavioral Risk Factor Surveillance System (BRFSS; 2020) statistics have developed a renewed interest in obesity since the US adult obesity rate stands at 42.4%. Trust for America's Health's report (2020) provides a glimpse of overweight and obesity rates by age, gender, race, and state of residence each year. Historically, our national obesity rate has increased by 26% since 2008 (Fryar et al., 2012). This is the first time the national rate passes 40% (Hales et al., 2020), with the year 2012 having no state having an obesity rate above 35% and year 2000 with no state having an obesity rate above 25% (TFAH, 2019). Black adults show the highest level at 49.6%, with Black women at 56.9%, then Latinx adults at 44.8%, White adults at 42.2%, and Asian adults at the lowest at 17.4% (NHANES, 2017-2018). The childhood obesity rate is at 19.3% of young people ages 2-19, whereas in the mid 70's the rate was 5.5.% (BRFSS, 2019). The findings in CHAT (2011) researchers revealed that half of the Hispanic children in Texas are overweight or obese, with an astonishing 2/3 chance of

becoming obese by age 35. Obesity rates in Texas are also higher than the national average, especially in economically disadvantaged cities and among minorities (Arons, 2011).

Cost of Obesity

A primary concern of obesity is excess weight, which impairs health in numerous ways, especially our nation's health, economy, and military readiness (CDC, 2022). Obese adults also have a higher risk for developing heart disease, type 2 diabetes, and several types of cancers (CDC, 2022). These nutrition-related chronic diseases are on the rise, with females more likely to be obese compared to males, due to inherent hormonal differences (Gupta, 2009). In 2014, approximately 631,000 persons in the U.S. received a diagnosis of cancer associated with overweight and obesity, representing 40% of all cancers diagnosed; and approximately half of U.S. residents are unaware that adults who are overweight or have obesity are at increased risk for cancer (Steele, et al., 2017). Being overweight and obese are linked to 13 different types of cancers, with an increase of 7%, while others not associated with obesity decrease by 13% (CDC, 2017).

Obesity has serious health consequences, and in addition to this, obesity has tangible financial costs that affect everyone in the U.S. up to $173 billion dollars (Ward et al., 2021). In 2008, the medical cost for obesity was 147 billion dollars; the average medical cost for obese patients was $1,429 higher than the cost for a non-obese patient (CDC, 2020). A review of 33 U.S. studies found that per person direct medical costs of obesity were more than six times greater than those for overweight with aggregated costs estimating nearly $114 billion (Cawley et al., 2021). Obesity incurred $2,505 higher annual medical costs, doubling their medical expenditures compared with normal weight people. The increase in costs rose with the class of obesity. Obesity in adults was responsible for $260.6 billion in medical expenditures in the U.S. (Cawley et al., 2021).

Evidence from the Children's Hospital Association of Texas (2011) shows obesity comes with an estimated price tag of $3.3 billion per year. Additionally, medical costs are 42% higher in obese adults in comparison to their average weight counterparts (Arons, 2011). In the U.S., childhood obesity alone is estimated to cost $14 billion annually in direct health expenses (TFAH, 2020). Individuals lose both direct and indirect costs (USDA Economic Research Service, 2012). Direct costs are results of outpatient and inpatient services including surgery, tests, and drug treatments. Indirect costs are more difficult to recognize and measure than direct costs. Indirect costs are inevitable because of a health condition, the value of lost work, insurance, and wages (USDA Economic Research Service, 2012). The direct costs as well as the supplementary hidden costs of obesity are affecting businesses and organizations that stimulate jobs and growth in U.S. cities (USDA Economic Research Service, 2012). In the 10 cities with the highest obesity rates, the direct costs linked with obesity and obesity-related diseases are approximately $50 million per 100,000 residents. If these 10 cities decrease their obesity rates to the national average, the collective savings to their communities would be $500 million in health care costs each year (Witters et al., 2011).

In business, costs can be paid by both the employee and the employers with days missed, lower productivity, premature mortality, and increased transportation costs (Hammond, Levine, 2010). Obese employees miss more days from work due to short-term absences, long-term disability, and premature death, than non-obese employees (Colditz, 1992). In addition to growing healthcare costs attributed to obesity, the nation will incur higher costs for disability and unemployment benefits (Wang et al., 2008). Businesses are suffering $4.3 billion annually due to obesity-related job absenteeism and will continue to rise (Cawley et al., 2007). These costs will also continue to rise. If obesity rates stay at the 2010 levels, the predicted savings for medical

expenditures would be $549.5 billion over the next two decades (Finkelstein et al., 2012). Cawley and Meyerhoefer (2012), meanwhile, found that per capita medical spending was $2,741 higher for obese individuals than for individuals who were not obese-a 150 percent increase. Thompson and colleagues concluded that, throughout a lifetime, per-person costs for obesity were like those for smoking (Thompson et al., 1999). Middle-aged men with the management of five common obesity-related conditions (stroke, coronary artery disease, diabetes, hypertension, and elevated cholesterol) resulted in roughly $9,000 to $17,000 higher costs compared to normal-weight adults. Employers also pay higher life insurance premiums and pay out more for workers' compensation for employees who are obese than for employees who are not (Trogdon et al., 2008). Some studies have shown that obesity is associated with lower wages and lower household income (Colditz & Wang, 2008).

The issue of childhood obesity has received considerable critical attention. Childhood obesity is a topic of interest because it is alone responsible for $14 billion in direct medical costs. Obesity-related medical costs in general are expected to rise significantly, especially because today's obese children are likely to become tomorrow's obese adults (Marder & Chang, 2006). Looking ahead, researchers have estimated that by 2030, if obesity trends continue unchecked, obesity-related medical costs alone could rise by $48 to $66 billion a year in the U.S. (Wang et al., 2011).

Childhood obesity has increased 8-fold since 1975, with interventions for obesity being mainly focused on behavioral practices, with interventions that focus on behavioral changes such as increasing physical exercise and optimizing diet (Weihrauch-Blüher & Wiegand, 2018). Effects have been very limited worldwide and cannot stop the increase, thus community-based or environmental-oriented measures are urgently needed, such as the promotion of healthy food

choices by taxing unhealthy foods, mandatory standards for meals in kindergarten through 12 schools, increasing daily physical activity, and banning of unhealthy food advertisements for children, which has shown sustainable success (Weihrauch-Blüher & Wiegand, 2018). Childhood obesity has impacted both physical and psychological health. Environmental factors, lifestyle preferences, and cultural environment play pivotal roles in the rising prevalence of obesity worldwide. In general, overweight and obesity are assumed to be the results of an increase in caloric and fat intake. On the other hand, there is supporting evidence that excessive sugar intake from soft drinks, increased portion size, and steady decline in physical activity have been playing major roles in the rising rates of obesity all around the world.

Prevention through parenting styles is crucial during childhood and adolescence, focusing on dietary patterns, eating habits, portion size, eating frequencies, family meals, physical activity promotion and reduction of sedentary behavior. Adherence is highly dependent on socioeconomic factors (Verduci et al., 2022). Setting food quality standards and public policies to promote healthy lifestyle habits is strongly advocated, while cost-effective preventive strategies and an integrated approach by health care services and all stakeholders should take an active role (Verduci et al., 2022). The development, implementation, and evaluation of cost-effective prevention strategies should be a high priority with a focus on healthy eating patterns and physical activity habits (Koletzko et al., 2021). Parents play an important role as a suitable model for their children's health and unhealthy behavior (Faith et al., 2012; Lindsay et al., 2006). The adoption of healthy eating habits in preschool and school-aged children should be promoted as early as possible (Luque et al., 2021).

It is possible that a clearer understanding of the cost of obesity will spur larger and more urgent programs to prevent and treat it. While the U.S. has made some investments in prevention,

for example, the former First Lady Michelle Obama's "Let's Move" initiative and Communities Putting Prevention to Work, these efforts represent relatively small steps forward, and future public health prevention funding remains under threat (Let's Move, 2017).

Factors Contributing to Childhood Obesity

Currently Americans are struggling with proper nutrition and adequate physical activity. Fewer than one in 10 children and adults eat the recommended daily number of vegetables, fewer than one in four youth get enough aerobic physical activity, just one in four adults meet physical activity guidelines, and only two in five young adults are weight eligible and physically prepared for basic training in our military (CDC, 2022).

The State of Obesity Report (2020), sponsored by the Robert Wood Johnson Foundation, seeks solutions for a healthier nation with a multi-sector approach for better policies including the expansion of nutritional support programs and the creation of more opportunities to be physically active, especially for those disproportionately affected populations. High concerns are food insecurity and obstacles to healthy food options and safe physical activity areas. More than half of Americans do not live within half a mile of a park and 40% of all U.S. households do not live within a mile of healthier food retailers (CDC, 2022). Previous research established that the more a person earns the less likely they are to have obesity, the less education the more likely they are to have obesity, and that rural areas have higher rates of obesity and severe obesity than do suburban or metropolitan areas (Lundeen, 2018). The last few decades have seen a growing trend toward socioeconomic factors, like poverty and discrimination, which can also contribute to higher rates of obesity (Singh et al., 2010; Franklin et al., 2012).

Several attempts have been made to show that the environments in which we live and the public policies that local leaders enact directly impact the foods our children eat and how much

physical activity they get (Singh et al., 2010). A much-debated question on when schools have healthy foods and beverages in their cafeterias and vending machines, do students eat better? (Pineda et al., 2021). Research has documents that when communities have parks and bike trails in their neighborhoods and vigorous physical education programs in their schools, children are more active (Carver et al., 2023; Heath & Bilderback, 2018). Similarly, neighborhoods that have supermarkets and farmer's markets that sell affordable, healthy foods, result in families eating more nutritious meals (Burkhardt, 2020). But when communities are dominated by fast food chains, with few places to play, our children eat worse and are less active, and their health suffers and all of society pays a price for higher healthcare costs and lost economic productivity.

Review of the literature investigates factors behind poor diet and offers numerous insights into how parental factors may impact on obesity in children (Patrick & Nicklas, 2005). The ecological model, as described, suggests that child risk factors for obesity include dietary intake, physical activity, and sedentary behavior (Davison & Birch, 2001). The impact of such risk factors is moderated age and gender. The characteristics of a family, parenting style, and their lifestyles also play a role in the health of the family. Environmental influences such as school policies, demographics, and parents' work-related stresses affect eating and activity behaviors (Sahoo et al., 2015). Authoritative feeding, deciding which foods are accessible, permitting the child to choose, and offering justification for healthy options, is connected with positive thoughts and reasoning about healthy foods and healthier intake (Sahoo et al., 2015). Interestingly, authoritarian restriction of junk-food is associated with increased desire for unhealthy food and higher weight (Birch & Fisher, 1998). Other studies demonstrate that adolescents associate junk food with pleasure, independence, and convenience, whereas liking healthy food is considered odd (Chapman & Maclean, 1993).

Fast food consumption has been linked with obesity in recent years. Several families, particularly those with both parents working outside the home, select these places to eat as they are regularly preferred by their children and are both convenient and inexpensive. Foods served at fast food restaurants are prone to be comprised of a high number of calories with low nutritional values. A study conducted examined the eating habits of lean and overweight adolescents at fast food restaurants (Budd & Hayman, 2008). Researchers found that both groups consumed more calories eating fast food than they would typically in a home setting, but the lean group compensated for the higher caloric intake by adjusting their caloric intake before or after the fast-food meal in anticipation or compensation for the excess calories consumed during the fast-food meal. Although several studies have exposed weight gain with the regular consumption of fast food, it is challenging to establish the relationship between fast food and obesity (Niehoff, 2009).

Sugary drinks are another factor that has been examined as a potential contributing factor to obesity. Sugary drinks are often thought of as being limited to soda, but juice and other sweetened beverages fall into this category. Many studies have examined the link between sugary drink consumption and weight, and it has been continually found to be a contributing factor to being overweight. Sugary drinks are less filling than food and can be consumed quicker, which results in a higher caloric intake (CDC, 2010). Another influence that has been considered as a possible contributive factor of childhood obesity is the consumption of snack foods. Snack foods comprise foods such as chips, baked goods, and candy. Many studies have been conducted to examine whether these foods have contributed to the increase in childhood obesity. Since snacking has shown to increase overall caloric intake, no studies have been able to find a connection between snacking and being overweight. Portion sizes have enlarged immensely in the past decade. Consuming large portions, in addition to frequent snacking on highly caloric foods, contributes to

an excessive caloric intake. This energy imbalance can cause weight gain, and consequently obesity.

One of the factors that is most significantly linked to obesity is a sedentary lifestyle. Each additional hour of television per day increased the prevalence of obesity by 2%. Television viewing among young children and adolescents has increased dramatically in recent years (Anderson & Butcher, 2006). Most children in the past walked or rode their bike to school. A study conducted in 2002 found that 53% of parents drove their children to school. Of these parents, 66% said they drove their children to school since their homes were too far away from the school. Other reasons parents gave for driving their children to school included no safe walking route, fear of child predators, and out of convenience for the child (Anderson & Butcher, 2006). Children who live in unsafe areas or who do not have access to safe, well-lit walking routes have fewer opportunities to be physically active (Anderson & Butcher, 2006).

Government and social policies could also hypothetically endorse healthy behaviors. Research specifies that taste of food, followed by hunger and price, are the most significant reasons in adolescent's snack choices (Story et al., 2002). As proposed by the National Taskforce on Obesity, fiscal policies such as taxing unhealthy options, providing incentives for the distribution of inexpensive healthy food, and investing in convenient recreational facilities or the esthetic quality of neighborhoods can enhance healthy eating and physical activity (Murphy, 2005).

Children and youth ages 8 to 18 spend an average of more than 7.5 hours each day using entertainment media, including TV, computers, video games, cell phones, and movies, and only one-third of high school students are getting the recommended levels of physical activity (CDC, 2011). Access to unhealthy food has increased in the past few decades. Thirty years ago, kids ate just one snack per day, whereas now they are trending toward three snacks, resulting in an

additional 200 calories per day (Wells & Buzby, 2008). One in five school-aged children consume up to six snacks per day. In total, we are now eating 31% more calories than we were 40 years ago, including 56% more fats and oils, and 14% more sugars and sweeteners. The average American now eats 15 more pounds of sugar per year than in 1970 (Wells & Buzby, 2008). If trends continue, we will see a 42% obesity rate in this country among adults, and future trends in childhood obesity prevalence will have a major impact on adult obesity prevalence and obesity-related costs (Finkelstein et al., 2012).

According to the U.S. Department of Education and the Schools and Staffing Survey, the amount of time devoted to teaching mathematics in U.S. elementary schools increased by 40 percent between 2000 and 2003 (Hannaway & Hamilton, 2008). No Child Left Behind had led to a shrinking curriculum that does not accurately represent the range of content areas that students should be taught in a well-rounded curriculum. Numerous teacher surveys show a decrease in time teaching non-tested subjects, like physical education (Abrams, 2015; Maleyko & Gawlik, 2011). The National Center for Education Statistics found that instructional time on subjects other than mathematics and reading in elementary schools decreased by one-third since NCLB became law (U.S. Department of Education, 2007).

Research shows that one of the contributing factors to childhood obesity is the increased use of technology compared to the amount of leisure time devoted to exercise, recreation, and play in this technological era (Anderson & Butcher, 2006). Recent developments in childhood obesity have heightened the need for many organizations to develop resources, tools, and presentations to teach the public about this preventable disease. Organizations and schools have been intervening to support the decrease of sedentary behavior and the increase in physical activity and nutritional eating. Past research on physical education and recess in schools has been investigated through

several different lenses with the central focus on addressing obesity, encouraging a healthy lifestyle, and developing better learners (Hodges et al., 2022). Still, more current research shows the crucial role of recess in schools. Recess supplies necessary breaks from the rigors of academic challenges, increase of physical activity, and healthy lifestyle with unstructured free play to enhance a child's creative, social, and emotional development (Chin & Ludwig, 2014). This personal time should not be withheld for academic or punitive reasons (Chin & Ludwig, 2014).

Additionally, several school-related interventions have been long underway, and researchers have discovered these programs were working (Coleman, 2006; Coleman et al., 2005; Heath & Coleman, 2002, 2003; Herrick, et al., 2012; Marcoux, et al., 1999; Murray, et al., 2007; Sallis, et al., 1997). The Coordinated Approach to Child Health (CATCH) has been a coordinated school health program that has been studied in the state of Texas with over 120 peer reviewed studies demonstrating effectiveness (CATCH Global Foundation, 2023). Therefore, a commitment to quality physical education can positively influence healthy behaviors that need to be addressed. Physical education is paramount to the success of this initiative. County has been studied by Dr. Coleman and Dr. Heath with research in 2002, 2003, 2005, and 2006 when the programs were first being implemented in the area, with financial support from the Paso del Norte Health Foundation.

Up to now, most studies in the field of childhood obesity have focused mainly on intervention in physical activity via physical education to stop this escalating problem; research found a relationship between physical activity and body weight (Baran et al., 2020). Boys were more active than girls in terms of step counts, moderate to vigorous physical activity, and each of its components; while girls showed a greater proportion of daytime spent in sedentary activities (Baran et al., 2020). Additionally, findings showed that both boys and girls, in each age group, had obese children spending less time in moderate to vigorous physical activities per day, especially

in ages 12 - 15 children and 12 - 15 girls (Baran et al., 2020). Fulfillment with the recommendation of 60 minutes a day of MVPA by children showed a highly protective effect against the incidence rate of overweight or obesity (Baran et al., 2020). Children who are overweight or obese spend significantly less time in MVPA in relation to children with normal weight, both boys and girls; while girls and boys whose weight was normal or below spent between 5 and 20 more minutes in MVPA than overweight obese or very obese children (Baran et al., 2020). Both boys and girls, aged 6 - 8 years, were the most physically active and children with normal body weight had the longest time spent in MVPA, daily and during school time (Baran et al., 2020). This shows that meeting or not meeting the 60 minute a day recommendation of MVPA is immensely significant in protecting against the manifestation of the overweight and obesity categories (Baran et al., 2020). But boys did more often attain the recommendation than girls, confirming that noncompliance with the recommendation was associated with obesity in girls (Baran et al., 2020). Girls and boys aged 7 to 11 and 12 to 15, showed a greater percentage of children who are overweight and obese, and were in the group that did not meet the recommendation of 60 minutes (Baran et al., 2020). This shows that the failure to meet the physical activity standard is associated with a greater chance of developing and staying in the overweight and obesity incidence rate (Baran et al., 2020).

Since obesity is a preventable condition, one of the ways national, state, and local policymakers have tried to combat childhood obesity is through public education. Healthy environments are vital to reversing this childhood obesity epidemic (Schwartz & Brownell, 2007). When children have safe places to walk, bike, and play in their neighborhoods, like parks, playgrounds, and after school programs, they are more prone to be active and less likely to be obese. When neighborhoods have access to healthy, affordable foods, families eat better. Even the

best efforts to inspire families to increase physical activity and healthy eating would not work if their neighborhoods do not support a healthy lifestyle.

Initiatives at the Federal Level

Childhood obesity continues to increase in the U.S. with detrimental health and educational implications. As depicted above, current statistics show that the childhood obesity epidemic is spiraling out of control. In the following section, I highlight federal policy and environmental changes that are expected to be effective at improving health. Then in the next sections that follow, I discuss the state and local levels.

In 2012, SNAP–Education, was introduced as a nutrition education and obesity prevention program that served 45 million students. The program included the SNAP-Ed Toolkit which consisted of a portfolio, evidence-based, tools, and policies. The SNAP-Ed Evaluation Framework also contains menus and principles to support change in nutrition education and practices (UNC Center for Health Promotion and Disease Prevention, 2016).

The Centers for Disease Control and Prevention (CDC, 2023) is at the forefront of the nation's efforts to promote the health and well-being of children and adolescents in schools. They developed effective recommendations to help states create healthy school environments for all children and youth. Children with unhealthy behaviors or "chronic health conditions may face lower academic achievement, increased disability, fewer job opportunities, and limited community interactions as they enter adulthood" (CDC, 2017, p1.). They may miss more schools due to their conditions, which reduces their opportunities and time for learning (CDC, 2017). Schools can help children and adolescents improve their dietary and physical activity behaviors and manage their chronic conditions and in turn have better academic outcomes (CDC, 2017). They can create healthy environments for students by using practices and policies that support healthy eating and

regular physical activity and by providing ways for students to learn about and practice these behaviors. Healthier behaviors not only prevent chronic diseases but are also linked to academic achievement and success. The Whole School, Whole Community, Whole Child model brings together health, public health, education, and school health sectors to improve health and learning (CDC, 2023). Successful, well-coordinated school health programs demonstrate the productive relationship between administrators, teachers, parents, students, school board members, and community leaders. They develop an action plan for their campuses, using a coordinated approach with well-researched and effective guidance and support to help improve school health services, policies, and practices. They also help support the management of chronic conditions.

CDC funds all 50 states including Washington DC, to reduce risk factors associated with childhood obesity and promote the well-being and development of all children and youth (CDC, 2015). Healthier nutritional environments, comprehensive physical activity, management of chronic conditions, quantity, and quality physical education, and physical activity with strength and endurance, build healthy bones and muscles and help control weight to reduce anxiety and stress. These environments may improve academic achievement, blood pressure, and cholesterol levels with the improvement of nutritional quality and promote healthy behaviors for proper growth and development and prevention of health problems like obesity, cavities, iron deficiencies, and osteoporosis (CDC, 2022).

Texas Education Agency: Coordinated School Health

Due to the childhood obesity crisis in Texas, the state has responded through several strategic actions. Texas enacted policies associated with nutrition, physical activity, and comprehensive involvement.

The Texas Education Agency (TEA, 2022) provides information on health and physical education curriculum. The Texas Essential Knowledge and Skills (TEKS) for Health, Chapter 115 and Physical Education, Chapter 116, are curriculum standards for teachers to apply to kindergarten through 12th grade that includes Health and Physical Education: Foundations of Personal Fitness, Adventure/Outdoor Education, Aerobic Activities, Individual Sports, and Team Sports for high schools. Although there has been much support for quality health and physical education from the Texas Association for Health, Physical Education, Recreation, and Dance (TAHPERD), TEA decided on the reduction of high school physical education to one credit, from 1.5 credits, and health from .5 credits to health as an elective, unless districts choose to require health on their degree plan. However, schools are still required to perform fitness testing (TEA, 2022), but only in courses they take for credit, therefore minimizing data.

In 2001, the state of Texas issued Senate Bill 19, which included mandates for a minimum of 30 minutes of physical activity daily, or 135 minutes weekly, along with the implementation of an approved Coordinated School Health Program (CSHP) and a School Health Advisory Council (SHAC) (Kelder, et al., 2009). Coordinated School Health Programs in schools aim to help increase the quality of a physical education classroom, as well as the overall school health environment with a holistic approach. The Center for Disease Control and Prevention (2015) has focused on an updated Coordinated School Health approach with the Whole School, Whole Community, and Whole Child (WSCC) model. Ten health-related areas that are included: health education, physical education/physical activity, nutrition environment/services, health services, social and emotional climate, counseling, psychological and social services, physical environment, employee wellness, family engagement, and community involvement. Texas follows the Center for Disease Control and Prevention's ten component structure of the health-related areas:

comprehensive school health education, physical education, school health services, nutrition services, counseling, psychological and social services, healthy school environment, school-site health promotion for staff, and family and community involvement (Texas Department of State Health Services, 2013).

Currently, the TEA-approved CSH programs are the Bienestar Health Program (K-8), CATCH (K-8), and The Great Body Shop (K-5) (TEA, 2022). These CSH programs are a supplement to a quality physical education program, and only 43% of Texas schools implemented a CSH program by the deadline in 2007 (Kelder et al., 2009). In 2003, Texas Senate Bill 1357 expanded the prior legislation by providing additional expectations for the publicity of policies for the number of minutes in physical activity, vending machines, and tobacco use, along with the clarification of the School Health Advisory Council (SHAC) (Kelder et al., 2009). Then in 2005, the 79th Texas legislation, Texas Senate Bill 42 provided required middle school to implement physical activity minutes, to be trained in and implement an approved coordinated school health program (CSHP), have independent school districts (ISDs) use nationally recognized guidelines for health and PE, have schools evaluate compliance with nutritional regulations, and restore school health advisory councils (SHAC), and have TEA report annually a summary of the student health and physical activity data provided by ISDs (Barroso, et al., 2009). The bill also requires reports for health and physical activity along with the development of a state SHAC. With the passage of Texas Senate Bill 42 in 2005, middle schools in Texas were mandated to have physical activity requirements of 30 minutes per day, 135 per week, or 225 per two weeks, during 4 of 6 semesters. Even though Texas Senate Bill 42 had no funding, a study found most schools did not accept exemptions on this matter (Barroso, et al., 2009). Research on Texas' Senate Bill 19 and 42 were conducted in two border regions and found that most schools met the Moderate to Vigorous

Physical Activity (MVPA) goal of 50% of class time but saw no decrease in childhood obesity rate in either of the border regions (Kelder et al., 2009).

As a result of the policies above, schools in Texas were to adopt a program on Coordinated School Health (CSH), which conducted physical fitness assessments, provided 135 minutes of physical activity per week for elementary schools, and 150 minutes for secondary schools. All of this was required to be implemented by 2007 in all Texas public schools (TEA, 2022). CSH is a collaborative effort by a multidisciplinary team to promote the students' needs for optimal holistic health. These Texas bills, Senate Bill 19, 1357, and 42 were some of the first statewide mandates to address health issues but were not funded, evaluated, or monitored (Kelder, et al., 2009). Even with legislative support, there is a lack of funds, accountability, and assessment. Even so, many Texas communities were still implementing health policies enacted by federal and state mandates whether they are funded or not, and the County region is one of them.

The state requires elementary, middle, and high school students to participate in physical education with Texas Education Code (TEC) §28.002(a)(2)(C). A school district shall require full-day prekindergarten, in kindergarten, or in a grade level below grade six to participate in moderate or vigorous daily physical activity for at least 30 minutes throughout the school year as part of the district's physical education curriculum or through structured activity during a school campus's daily recess TEC §28.002(l). The district may as an alternative require a student in that grade level to participate in moderate or vigorous physical activity for at least 135 minutes during each school week. Texas also requires, via TEC §28.002(l), students enrolled in grade levels six, seven, and eight to participate in moderate or vigorous daily physical activity for at least 30 minutes for at least four semesters during those grade levels as part of the district's physical education curriculum. Additionally, the school district may as an alternative require a student enrolled in a grade level

for which the district uses block scheduling to participate in moderate or vigorous physical activity for at least 225 minutes during each period of two school weeks. For Texas high schools, via, TAC §74, Subchapters (B) and (G), state that students must earn 1.0 PE credit to satisfy graduation requirements. TEC §25.114 requires the implementation of PE curriculum, to the extent practicable, utilizing student/teacher ratios that are small enough to ensure the safety of students. If the school district establishes a student/teacher ratio greater than 45 to 1 in a PE class, the district shall specifically identify the way the safety of the students will be maintained. State law requires school districts to annually assess the physical fitness of students enrolled in grade three or higher and to provide the results of individual student performance on the administered physical fitness assessments to the Texas Education Agency (TEA). The Physical Fitness Assessment Initiative (PFAI) is a program designed to collect and analyze the required student physical fitness data. In accordance with Texas Education Code §§38.101- 38.104, the TEA is required to complete the following objectives:

1. Adopt an assessment instrument to be used by all Texas public school districts
2. Compile the results of the physical fitness assessment captured by school districts and provide summary results
3. Analyze the results received for each school district to determine whether a relationship exists between student academic achievement levels, attendance levels, obesity, student discipline problems, and school meal programs.

As we take a closer look at Texas in the Shape of the Nation Report (2016), the state has adopted physical education standards which were last revised in 1998 and follow the national standards: 1. demonstrate motor skills/movement patterns, 2. applies knowledge of concepts Related to movement and performance, 3. demonstrates knowledge and skills to achieve physical

activity and fitness, 4. personal and social responsibility in physical education, and 5.values physical activity. Texas also requires physical education teachers to be state certified/licensed/endorsed to teach physical education in all grade levels, elementary, middle/junior high, and high school by passing a licensure exam. Texas does allow for generalists, which are elementary classroom teachers, to teach the required elementary school physical education. Also, in the Shape of Nation Report (2022), state requirements for student assessment in physical education has been a nationally undertaken event by spearheaded by SHAPE America, a national professional organization, to transform physical education, its rigor, and focus to demonstrate how physical education is essential to a student's overall education experience, as well as lifelong healthy living. SHAPE America's book, National Standards & Grade-Level Outcomes for K12 Physical Education, pursues physical literacy, which parallels the terminology of health and mathematics. Below are the SHAPE America (2014) standards and outcomes.

> The goal of physical education is to develop physically literate individuals who have the knowledge, skills, and confidence to enjoy a lifetime of healthful physical activity. To pursue a lifetime of healthful physical activity, a physically literate individual: has learned the skills necessary to participate in a variety of physical activities, knows the implications and the benefits of involvement in various types of physical activities, participates regularly in physical activity, is physically fit, and values physical activity and its contributions to a healthful lifestyle. (p. 1)

- Elementary School Outcomes (K – Grade 5): By the end of Grade 5, the learner will demonstrate competence in fundamental motor skills and selected combinations of skills, use basic movement concepts in dance, gymnastics, and small-sided practice tasks; identify basic health-related fitness concepts; exhibit

acceptance of self and others in physical activities; and identify the benefits of physically active lifestyle. (p. 2)

- Middle School Outcomes (Grades 6 – 8): By the end of Grade 8, the learner will apply tactics and strategies to modified game play; demonstrate fundamental movement skills in a variety of contexts; design and implement a health-enhancing fitness program; participate in self-selected physical activity; cooperate with and encourage classmates, accept individual differences, and demonstrate inclusive behaviors; and engage in physical activity for enjoyment and self-expression. (p. 21)
- High School Outcomes (Grades 9 – 12): By the end of high school, the learner will be college/career-ready, as demonstrated by the ability to plan and implement different types of personal fitness programs; demonstrate competency in two or more lifetime activities; describe key concepts associated with successful participation in physical activity; model responsible behavior while engaged in physical activity; and engage in physical activities that meet the need for self-expression, challenge, social interaction and enjoyment. (p.33)

Texas also has a recommended appraisal process and performance criteria in TEC 21.351. Even though the state of Texas does not have a specific teacher evaluation system for all teachers, this system does not have a system that applies to physical education teachers, and teachers may be appraised annually. The state does require the commissioner to adopt a state-recommended system of appraisal. But school districts are not required to use the system and can develop their own locally, based on observable, job-related behavior of two criteria: implementation of discipline management and the performance of teachers' students. T-TESS commenced in the

2016-2017 school year and replaced the Professional Development and Appraisal System (PDAS) (TEA, 2023). The T-TESS Rubric consists of planning, instruction, learning environment, and professional practices and responsibilities (TEA, 2023). Teachers are given support through a teacher handbook, a rubric, and a virtual instruction rubric (TEA, 2023). This assessment in Texas is not specific to physical education and the state does not provide funding specifically for physical educators or their professional development.

Partnerships in the Fight Against Obesity

Public and private organizations, as well as a variety of advocates, have sought to draw attention to and address childhood obesity issues. The Society of Health and Physical Educators (SHAPE America, formerly known as American Alliance for Health, Physical Education, Recreation, and Dance) and the American College of Sports Medicine (ACSM) have been educating people about a healthy lifestyle since 1885 and 1954 respectively. SHAPE America showed wide support for former First Lady Michelle Obama and her national campaign, Let's Move (2017), in an effort to raise healthier children. She developed a culture of healthy living to enhance academic success. Other public and private partnerships used for resources and funds are AASA (The School Superintendents Association), Action for Healthy Kids**,** Adventure to Fitness, Alliance for a Healthier Generation, ASCD (formerly the Association for Supervision and Curriculum Development), Athletes for Hope, BOKS, ChildObesity180, Focused Fitness, GenMove USA, GENYOUth Foundation, GoNoodle, Good Sports, Gopher Sport, Kaiser Permanente, KIDS in the GAME, *Let's Move!,* National Association of Secondary School Principals (NASSP),National PTA, NBA FIT, NIKE, Inc., Partnership for a Healthier America, President's Council on Fitness, Sports & Nutrition, Safe Routes to School National Partnership, S&S Worldwide, SHAPE America, SPARK & Sportime, U.S. Department of Health and Human

Services and USA Track & Field (Active Schools, 2023). Resources include ways to enhance and evaluate a school's movement efforts.

To accelerate progress in the reduction of childhood obesity, the National Collaborative on Childhood Obesity Research (NCCOR) brings together four of the nation's leading research funders: the Centers for Disease Control and Prevention (CDC), National Institutes of Health (NIH), Robert Wood Johnson Foundation (RWJF), and U.S. Department of Agriculture (USDA). Since 2008, they have been working in tandem to manage projects and reach common goals, combine funding to make the most of available resources, and share insights and expertise to strengthen research. NCCOR is focused on: supporting researchers with tools that help build the capacity for research and surveillance, maximizing outcomes from research and supporting evaluations; using innovation to stimulate broad thinking to generate fresh, synergistic ideas; and increasing knowledge to find solutions by promoting new research funding mechanisms and translating and disseminating research findings.

NCCOR has transformed the field of childhood obesity prevention through its structure, design, contributions, and accomplishments by its contributions to the field of childhood obesity research. NCCOR recently published two papers in the American Journal of Preventive Medicine. The first paper, Developing A Partnership for Change: The National Collaborative on Childhood Obesity Research (Ballard, 2018) highlights the formation, structure, and operations of NCCOR and discusses benefits of using a collaborative model to address health problems. The companion paper, A National Collaborative for Building the Field of Childhood Obesity Research (2018) details several principles for successful partnerships and how NCCOR used these principles to make significant contributions to build the field of research, evaluation and surveillance for childhood obesity prevention and management. The papers are accompanied by a commentary by

senior leaders of NCCOR's member organizations and an editorial by Dr. Jim Sallis, a member of NCCOR's External Scientific Panel. These documents are important because they address how important it is for collaboration to accelerate efforts.

In 2010, NCCOR was researching the relationship between program and policies and childhood obesity, diet, and physical activity. The emphasis was on interventions that strengthen the capacity of knowledge, skills, and tools. The organization also worked on evaluation of interventions and developing more interventions. Researchers studied 130 communities and 5,138 children and families, programs already in place, and communities with high proportions of Latinos, and African Americans (Arteaga, et al., 2015). They answered important research questions about diet, physical activity, BMI, and their relationship to aspects of community programs and policies, such as intensity and duration, funding, and target population (Arteaga, et al., 2015). They also looked at optimal combinations that modify or mediate BMI, diet, and physical activity and found that there was a lack of understanding about what community programs and policies are implemented to address obesity and how these programs and policies are associated with obesity related outcomes, which community approaches are most likely associated with reductions in childhood obesity will enable federal, state, and local governments and organizations charged with improving Children's Health to better understand the types of programs and policies that influence obesity in children and youth. Will improve the understanding of which combination and characteristics of community programs and policies may be more strongly related to childhood obesity across diverse communities. The healthy community study is funded with federal funds from the National heart, lung, and blood institute in collaboration with the Eunice Kennedy Shriver National Institute of child health and development, National Institute of diabetes

and digestive and kidney disorders, National Cancer Institute, and NIH office of behavioral and social sciences research.

Body fat measurements are calculated by body composition measurements or by the Body Mass Index (BMI). Body composition is calculated by the percentage of adipose tissue, or fat, in the body in relation to muscle tissue through several body composition measures such as calipers, electrical impedance, and underwater weighing. BMI is measured by weight in kilograms divided by height in meters squared (CDC, 2017). BMI is the key instrument that plays a critical role in the maintenance of childhood obesity. A child's BMI is collected in schools annually, usually by the nurse or physical education teacher. It is important to know and understand this number to maintain a healthy weight, which can lead to changes in diet and physical activity patterns. Categories for BMI include underweight, healthy weight, overweight, obese, and severely obese (National Institute of Diabetes and Digestive and Kidney Diseases, 2017). To determine a child's weight status, the child's BMI is compared to the Center for Disease Control's growth charts with an age and sex specific percentile. For children, the state of being overweight is categorized at the 85th percentile and the state of being obese is at the 95th percentile (CDC, 2013). The Center for Disease Control and Prevention defined overweight as at or above the 95th percentile of body mass index (BMI) for age and "at risk for overweight" as between 85th to 95th percentile of BMI for age (Himes & Dietz, 1994).

In March 2015, NCCOR announced its first strategic funding alliance with. The JPB Foundation. The Foundation strives to enhance the quality of life in the United States through transformational initiatives that promote the health of our communities by creating opportunities for those living in poverty, enabling pioneering medical research, and enriching and sustaining our environment. The two-year grant from The JPB Foundation enables the Collaborative to

strengthen the Measures Registry, its landmark, online tool that allows researchers to find and select measures critical to conducting childhood obesity research. This strategic alliance allows NCCOR to continue its efforts to propel the field toward the more consistent use of common measures and research methods across childhood obesity prevention and research. In 2017, NCCOR supported initiatives like Additional Benefits of Walkability and Youth Active School Transportation Surveillance to identify and improve physical activity in children.

Increasing attention for the Center for Disease Control and Prevention (CDC) has increased the resources and strategies of those fighting the battles. In 2015, the Division of Nutrition, Physical Activity, and Obesity stated that there is no single or simple solution to this complex problem and that a multifaceted approach that would create an environment to support a healthy lifestyle is needed (CDC, 2015). Community efforts, along with state and local programs with a healthy eating and active living message are essential. The CDC also provided tools to assess your weight, BMI waist circumference, potential disease risk, and know healthy weight. Resources also include Choose My Plate, a means to learn about healthy eating habits, physical activity basics, and tips for parents. The CDC website has several resources, and documents that show the causes and consequences of how behaviors affect the body, like eating high-calorie, low-nutrient foods, or beverages, not getting enough physical activity, sedentary habits such as watching television or other technological devices, medication use, and sleep routines. Another focus is on the community environment (CDC, 2020).

Research and exploring the relationships between childhood obesity and topics that include school type, the National School Lunch Program (NSLP) and School Breakfast Program (SBP) eligibility, membership in sports clubs and socio-demographic, and household factors. The study shows schools with the NSLP/SBP influence a child's BMI. This study discusses policy

recommendations for factors that can address childhood obesity (Li & Hooker, 2010). 3,360,480 Texas children participated in the National School lunch program in 2019, 59% of students were eligible for free or reduced lunch.

Tackling Obesity in Schools

Each day 132,000 schools provide a setting for 55 million students to learn about health and healthy behaviors. Students are required to be in school approximately 180 days a year (CDC, 2020). Therefore, schools play a critical role in helping children develop lifelong healthy habits. Schools are a significance location for obesity prevention (McGuire, 2012). Establishing healthy behaviors during childhood is easier and more effective than trying to change unhealthy behaviors as adults.

Children who are currently at a healthy weight can also benefit from the preventive interventions that are based on simulating how childhood obesity and overweight will continue to be a health problem (Brown, et al., 2015). Given the high risk posed to children, professionals need to work to identify and implement effective strategies, cost-effective interventions focused on preventing excessive weight gain at an early age by providing knowledge of healthier foods, beverages, and physical activity within early childhood and school settings. These interventions are projected to save more in future health care costs than they cost to implement (CHOICES, 2017).

The United States offers many opportunities for developing obesity prevention strategies by providing more nutritious foods, greater opportunities for physical activity, and providing obesity-related health services through several professional organizations. These sources are areas for funding, tools, and resources. These sources also provide insights and expertise that schools

can use to address childhood obesity. Childhood obesity has physical, cognitive, psychosocial, emotional, and academic consequences (Sahoo, 2015).

Research and evaluation are used to determine the best strategies for encouraging healthy behaviors and give practitioners tools to put an effective program in place with healthy eating, physical activity, and management of chronic conditions. Schools use tools and resources like the school health index, physical education, or health education curriculum analysis tool. Health services can help address obesity by providing screening, health information, referrals, especially with low income, underinsured students, who do not receive health services elsewhere (Story, Kaphingst, and French, 2006). Schools can help to improve attendance and academic performance, and identify students without insurance, help them obtain insurance, refer to a school-based opt community-based provider so they can stay in school and not miss due to sickness. (CDC, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health, 2017). Schools are also managing chronic conditions, direct care, such as giving medications, providing case management, and advocating for students and families to help get the resources and support they need. School nurses can decrease absenteeism and improve academic performance. Daily school attendance is strongly associated with standardized test scores and graduation rates, lower and dropout rates (CDC, 2017). Students with chronic conditions need support. Schools need to advocate for a school-wide approach for health status checks, identifying barriers, and access to medical or mental health providers (CDC, 2017). All this will help address chronic tardiness, early dismissal, absences, chronic absenteeism, and provide a feeling of safety at school. Consistent and innovative health reporting to collect data for quality improvement is essential. The nurses can also advocate and provide case management. This is strongly needed during these developmental stages (CDC, 2017). The CDC National Center for Chronic Disease Prevention and

Health Promotion, Division of Population Health (2017) states that schools can reduce absenteeism and improve academic achievement with many interventions and data collection. Schools can assess their performance with the School Health Index and by having a district leader to address policies and practices.

Schools can provide resources to students and their families by providing school-based health services via the nurse with care coordination to specific and age-appropriate education to improve self-management, appropriate counseling, psychological, and social services. Schools can provide teachers and staff with professional development on improving health and academic outcomes for students with chronic diseases, and providing a safe physical environment with appropriate nutrition, and physical education, and physical activity opportunities throughout the school day.

School personnel, especially principals, can influence a school culture, mission/vision, teaching, and curricular expectations that can lead to creating schools that address the fight against childhood obesity. Research generally ignores the principal's role, looking at parents and even physical education teachers to solve this problem. but this research seeks to fill the gap, utilizing instructional leadership practices to promote healthy schools. Schools recommend having a comprehensive, multifaceted approach to help educate students with the same healthy messages from several angles, while taking it a step further, making changes in policy and programming (Pyle et al., 2006).

Children who are currently at a healthy weight can also benefit from the preventive interventions that are based on simulating how childhood obesity and overweight will continue to be a health problem. Given the high risk posed to children, professionals need to work to identify and implement effective strategies, cost-effective interventions focused on preventing excessive

weight gain at an early age by providing knowledge of healthier foods, beverages, and physical activity within early childhood and school settings. These interventions are projected to save more in future healthcare costs than they cost to implement (Ward et al., 2017).

Effective Programs and Schools

In this section, I will discuss the historical background of physical education, growth, and prominence of physical education, and the definition of a quality physical education program. Throughout history, people have participated in various physical activities for survival and/or entertainment. Physical education has been used by schools to incorporate physical activity and health topics into the student's school day.

The U.S. borrowed much of the ideals and philosophies for physical education from Europeans: Greeks, Spartans, Athenians, Romans, Germans, Danish, Swedes, and the English (Lumpkin, 2021). The purposes of physical activity have changed throughout the years, from honoring the Gods to the preparation for war and military supremacy, to the education of the whole child and meeting individual needs and therapies (Lumpkin, 2021). Activities covered military, religious, social festivals, and gymnastics.

In 1885, the Association for the Advancement of Physical Education was created to encourage the sharing of ideas. Today, this professional organization is called the Society of Health and Physical Educators, SHAPE America. SHAPE America and the National Association for Sport and Physical Education (NASPE) have defined (1986) and set standards (1995) for the ideal physically educated person. This is a person who has learned skills to enjoy a healthy lifestyle and has access to a variety of physical activities, knows the benefits of involvement in physical activities, participates regularly in physical activity, achieves, and maintains a health-enhancing

level of fitness, and values physical activity and its contribution to a healthful lifestyle (see Appendix A for National Physical Education Standards).

For Physical Education specifically, various organizations have created or identified resources to support the implementation of previously established standards. National Standards & Grade-Level Outcomes for K-12 Physical Education, NASPE (2014) includes a curriculum framework, the standards, and outcomes for elementary, middle, and high school, and ways to implement the outcomes. These standards identify what the learner should be able to do to become physically educated. SHAPE America has also developed standards for health, dance, sport, and adapted physical education, as well as guidelines for early childhood, physical activity, physical education, sport, and undergraduate studies. There are online tools available, such as Exchange, Teacher's Toolbox, Coach's Toolbox, and Quality PE, as well as documents to support and assess physical education classes and teacher preparation programs at the university level. The SHAPE America website also highlights standards-based teaching in physical education with exemplary teaching by providing access to resources of both age and developmentally appropriate content combined with effective teaching practices. Research is also conducted throughout the United States to show us the shape of the nation. This research can help us build the healthy school culture we are needing to combat childhood obesity.

Shape of the Nation

Voices for Healthy Kids is a health and wellness initiative with the Robert Woods Foundation and the American Heart Association. The initiative researches and produces a report that shows the state of physical education and physical activity in the school system's policies and practices that improve student's health and well-being. The initiative has found that active kids learn better, and that physical education teaches them lifetime skills to keep them healthy. The

report states that active and fit children consistently outperform less active unfit students academically in both the short and the long term.

The report highlights the status of physical education in all 50 states, including the District of Columbia. This national report can help advocates with data and findings that strengthen the fight for physical education addressing parents, administrators, state boards, and legislators who can influence this fight against childhood obesity. Data was collected by online questionnaires, emails, and phone calls. Topics like time requirements, high school graduation requirements, exemptions / waivers / substitutions, physical activity, local wellness policy, standards, curriculum, instruction, class size, student assessment, program accountability, body mass index collection, physical education certification/licensure, National Board Certification, and state physical education coordinator requirements were all collected (Shape of the Nation, 2016). This data collected by these supporting agencies wanted to demonstrate what individual states are doing to allow for comparisons. This report shows that most children are still not participating in adequate physical education programs and is a simple starting place for any state that is ready to get more kids active and healthy in schools. Effective physical education programs provide the physical activity opportunity that kids need to positively impact their physical, mental, and emotional health (Shape of the Nation, 2016). Physical education programs improve judgment, reduce stress, and increase self-esteem. Making sure all students are receiving physical education is a critical part of keeping kids healthy. Physical education is so much more than physical activity (Shape of the Nation, 2016). It's time to better support the whole child. Physical education is the only subject that impacts the whole child, through psychomotor, cognitive, and affective skills by helping children exercise both their bodies and minds to help physical, mental, and emotional health (Shape of the Nation, 2016). According to Shape of the Nation and the most current 2016

survey results inform us about the policies and practices in the school system. School aged children are recommended to have 60 minutes of daily physical activity. Physical education programs are structured to provide the development of the whole child. These programs are to provide a safe, supervised environment used to have students learn about healthy, physically active behaviors to last them a lifetime.

Challenges include the diversity of state educational legislative, policies, and practices. The National Standards are in place, but state standards can differ tremendously from state to state. Policies are usually broad and leave details to be interpreted at local levels, again differing from each city and school district. But with national standards, even with diverse backgrounds, schools can provide equal opportunities for movement to all students, regardless of where they live. But communities of color and lower socioeconomic status are said to have extra challenges and lack resources to provide a quality physical education program. However, the benefits are seen through and through, regardless of these challenges as well as gender, grade level, or abilities. Limiting access to physical education and physical activity has consequences to the daily academic environment and the long-term well-being of the child (Shape of the Nation, 2016).

The Shape of the Nation report shows 32% of children and adolescents ages 2-19, overweight and obese. The report also show that they do not meet the physical activity recommendation of the 60 minutes per day, are not offered adequate physical education, and lack and adequate budget of a median budget of $764 per school year, which demonstrated a very low investment in preventative programs that are proven to be valuable to our children's formative health, wellness, and academic success that shape the whole person and smart choices for a healthy lifestyle. Each state has an opportunity to strengthen physical education and physical activity in the school system to improve the shape of the nation and the consequences to come.

The Shape of the Nation shows a plethora of data, by showing the number of states in parenthesis that meet the national recommendations for weekly time in physical education at both the elementary and middle school levels, only (2) Oregon and District of Colombia; the states that set a minimum amount of time that elementary (19) middle/junior high (15) and high school (6) students must participate in physical education. States that provide additional funding for physical education programs (15); states that mandate physical education in each of the levels: elementary (39 states), middle (37), and high school (44); states that require physical education teachers to meet state professional requirements: elementary (35 states), middle (43), and high school (48); states that allow exemptions or waivers for physical education (30/15); states that have physical education state standards (50); states that have student assessments in physical education (28); states that include physical education grades in the grade point average (28), prohibit withholding physical activity as punishment (10), and prohibit the use of physical activity as punishment (13).

Shape of the Nation also reports on policies and practices for each state. Shape of the Nation gives organizations like National Association of Sport and Physical Education (NASPE), American Heart Association (AHA), and the United States Department of Health and Human Services (USDHHS) ammunition to support physical education in the schools for the health of America's children. With the Center for Disease Control and Prevention's (2020) recommendation of 60 minutes of moderate to vigorous physical activity (MVPA) a day, physical education and recess can help tremendously to accumulate what is needed for children to be healthy, especially because most children are sedentary the rest of the day. Therefore, the decrease of physical education and recess would hinder their activity time even more. However, as previously noted, heighten accountability measures have led to a decrease in time in physical education and recess with the NCLB, and are still waiting to see what ESSA does.

Health People 2020 is a report of goals set by the Department of Health and Human Services that launched in December 2010. Healthy People 2020 had four overarching goals and shows the results of the ten-year study and intends to keep the motivation alive to ensure the practice of healthy habits: attain high-quality, longer lives free of preventable disease, disability, injury, and premature death; achieve health equity, eliminate disparities, and improve the health of all groups; create social and physical environments that promote good health for all and promote quality of life, healthy development, and healthy behaviors across all life stages. According to the HP 2020 report, one way to lead a physically active lifestyle is to stay motivated about achieving a healthy lifestyle. Adults need to assist children in attaining this motivation. Adults need to lead by example and make physical activity a part of the entire family's lifestyle. Accessibility to locations to exercise and equipment are a necessity. The environment needs to be positive, fun, and safe. The inclusion of family and friends can also foster the support to keep exercising. Being active in one's own way additionally provides support to maintain exercise practices. Children usually exercise for play, adults for health and fitness, and older adults to help aid in day-to-day activities. People with varying abilities need to know physical activity is essential and possible for them too. Consultation on what they can and cannot do is essential for safety.

Quality Physical Education

A high-quality physical education program is vital to providing students with knowledge skills, attitudes, and behaviors for a healthy lifestyle (Basch, 2011). A quality physical education program will include four components: curriculum, instruction, student assessment, and policies/environment (SHAPE America, 2015). A well-designed curriculum with highly qualified teachers, who are certified by the state of Texas in their specific content area can help the current state of the physical education (TEA, 2015). A highly qualified teacher is certified in their content

area to strengthen curriculum and instruction. To maintain quality, schools need to hire certified physical education teachers and provide teachers with ongoing, appropriate training along with supervision techniques specific to their classrooms. Professional development needs to be meaningful and designed to assist physical education teachers in finding ways to increase the amount of time students spend in moderate to vigorous physical activity (MVPA) and decrease the amount of time spent on administrative and classroom management duties (Jago et al., 2009, McKenzie et al., 1996, Sallis et al., 1997). To increase students' amount of time engaged in MVPA, a physical education curriculum needs to replace and modify games or activities that tend to provide lower levels of physical activity with activities that are inherently more active and aerobic in nature (Jago et al., 2009, McKenzie et al., 1996, & Sallis et al., 1997). An increase in physical activity can also be linked to more fitness and circuit training stations throughout the lesson (Jago et al., 2009, McKenzie et al., 1996, Donnelly et al., 1996, & Sallis, et al., 1997). Research states that student engagement in moderate to vigorous physical activity (MVPA) is less than 50% of the time spent in class, which is due to teachers spending about 15-26% of class time on managerial and administrative tasks that are not related to student activity (Jago, et al., 2009). This means less time in the recommended moderate to vigorous physical activity, less energy expended.

National standards and grade-level outcomes provide a framework for K-12 Physical Education (SHAPE America, 2013) and the content to be taught at each grade level. This gives flexibility to the teachers on how to develop lesson plans and give instruction for their own selected activities for the skills at each grade level. Each district's physical education curriculum should be clearly written, comprehensive, progressive, and define benchmarks at each grade level to align with their elementary and secondary physical education courses. The curriculum also needs to provide learning measurements. Each unit should provide learning objectives and activities that

maximize activity time. The curriculum should focus on at least 50 percent of class time to be in moderate to vigorous physical activity (CDC, 2011). A variety of teaching tools, assignments, resources, and assessments are to be used to maximize learning. Scope and sequence should clearly define learning objectives across the grade levels and the order in which they are taught with skill development, student expectations, scaffolding lessons, increasingly complexity of knowledge and skills (Graham, Holt-Hale & Parker, 2003). Differentiation of instruction and modification for the diverse developmental levels should also be considered to meet the needs of all students, including those with special needs or disabilities (CDC, 2011). Instructions should be student-centered and involve a variety of teaching methods and tools to reach all audiences. Instruction may be delivered to large groups, small groups and through one-on-one interactions. Best practices suggest adequate space and equipment to maximize practice time with the goal of self-direction (SHAPE America, 2014). Instructions should also be addressing all three domains: cognitive, psychomotor, and affective. During instruction time, students should be given the opportunity for maximum time to demonstrate content and skills with feedback opportunities from their physical education teacher. This is the time students gain information about their performance and the opportunity to develop skill mastery (SHAPE America, 2014).

Student assessment is another way to document effectiveness and accountability of both the teacher and the student. By gathering evidence of their progress and achievements, teachers and students can make decisions on students' learning and correction. A variety of assessments can include formal and informal checks, like task sheets, rating scales, rubrics, student projects, portfolios, demonstration of skills, and traditional knowledge quizzes and exams. Assessments can also provide a way to reflect the effectiveness of instruction and program success (SHAPE America, 2014).

The primary idea of physical activity is to increase the quality of life while enhancing the overall well-being of humans. The overarching goal is to live a long and healthy life. The goal in childhood is that children strive for 60 minutes of moderate to vigorous physical activity (MVPA) per day (Baran, et al., 2020). Students learn about cardiovascular exercise, muscular strength and endurance, flexibility, and body composition during elementary years and continue through secondary schooling. Students also learn of benefits that include, but are not limited to reduction of stress, depression anxiety, and increased mood, motivation, and focus to help with their schooling. With all these benefits being identified, a closer look at school leadership, who can influence school culture is needed to help combat childhood obesity, while supporting student's academic achievement.

In this section, I will explore research in school leadership including culture, school culture, and the Professional Standards of Educational Leaders. Culture is the customary beliefs, social forms, and material traits of a group. Organizational culture is defined as the underlying beliefs, assumptions, values, and ways of interacting that contribute to the unique social and psychological environment of an organization (Mamatha & Geetanjali, 2020). Organizational culture is created gradually by leaders on the basis of their values, assumptions and beliefs. Organizational culture is reflected in the architecture of the company, office layout, and in terms of behavior of employees, decisions, policies, and procedures (Mamatha & Geetanjali, 2020).

Schein (2010) argues that leaders are the main architects of culture and that after cultures are formed, they influence what kind of leadership is possible and that if no elements of the culture become dysfunctional leaders can and must do something to speed up cultural change. Culture is constantly modernized and crafted by our interactions with others and designed by our own behavior and when we are influential in this shaping of behavior and values of others, we think of

that as leadership, with conditions for new culture formation (Schein, 2010). Culture infers stability and rigidity, in the sense of how we are expected to perceive, feel, and act in a given society, organization, or occupation that has been taught to us by various social experiences and becomes a way of maintaining social order (Schein, 2010). These social order systems assist in predicting social behavior, getting along with others, and finding significance in what we do (Schein, 2010). Culture defines our language, and language specifies the meaning to our daily lives with the foundation of social order in which we live and the guidelines we abide by (Schein, 2010).

The strongest connection in organizations is between leadership and culture. A culture is the result of implanting what a leader has created, imbedded, evolved, and manipulated successfully with their group (Schein, 2010). Culture infers a level of stability and a sense of group identity that survives even when members depart (Schein, 2010). Culture can be difficult to transform because group members value stability and predictability. Culture can be analyzed at different levels, from concrete manifestations that you can see and feel to deeply embedded, unconscious, basic assumptions that are taken for granted by group members (Schein, 2010). The three levels of culture can be seen through artifacts, beliefs and values, and underlying assumptions (Schein, 2010).

School culture is built in schools that are comprised of diverse individuals with diverse backgrounds. Successful leaders have to prioritize the school culture to define values, beliefs, and traditions that have been historically rooted through ceremonies, rituals, and traditions implicit to the school community (Stolp, 1994). A leadership style shapes culture and consequently culture affects leaders by what people think and how they behave (Atasoy, 2020). This means that the principal has the potential to influence school culture. Principals are expected to develop and

support a solid school culture where students and teachers have a high motivation to learn and teach (Karadag & Ozdemir, 2015).

Effective School Movement 1970-1980

The Effective Schools Movement in the 1970's and 1980's developed research focused on finding stronger schools for all students in the United States. To find what characteristics make schools work effectively, researchers closely examined successful schools (Edmonds, 1979). The findings revealed that public schools can and do make a difference, even in areas with high poverty rates. Findings exposed that these children could learn at high levels despite attending public schools. As the major trailblazer of this movement, social scientist Ron Edmonds (1979), found common characteristics, practices, techniques, and procedures unique to schools where all children were learning, regardless of family background. Since these components correlated with student success, Edmonds termed them as correlates. Today, the seven correlates of an effective school are identified as: a clear school mission, high expectations for success, instructional leadership, frequent monitoring of student progress, opportunity to learn and student time on task, a safe and orderly environment, and home-school relations. Additionally, when administrators are seeking to improve schools, the changes can be made based on the Effective Schools Movement, its research, and these seven correlates (Lezotte, 2011).

The development of a clear school mission is the first step to guide a school toward specific common goals. A clearly articulated school mission developed in partnership with faculty and staff helps to ensure the understanding of, and commitment to, instructional goals, priorities, assessment procedures, and accountability. In turn, this commitment strengthens the acceptance of the shared responsibility for students learning to carry out the school's curricular goals. The school climate also needs to convey high expectations for success, according to the seven correlates of the

Effective Schools Movement (Lezotte, 2011). The climate needs to establish confidence among staff to ultimately demonstrate that all students can attain mastery of the essential knowledge and skills. Furthermore, the staff needs to believe they possess the capability to help all students achieve this mastery. Additionally, schools also need a principal to act as an instructional leader who persistently and effectively communicates the execution of the school's mission to staff, parents, and students. This administrator needs to fully understand and employ the pedagogies of instructional success for the management of the curriculum and instructional program. Frequent monitoring of a student's academic progress is also an essential correlation. A variety of assessments should be used to target areas needed to improve individual student performance, as well as the instructional program by a consistent, ongoing data review (Lezotte, 2011).

With the increase of student time on tasks students should be allowed to learn. Teachers need to allocate a significant amount of classroom instruction time for essential knowledge and skills. Students need to be engaged in teacher-directed planned learning activities for the whole class or large group instruction. Following the correlates, principals should ensure a safe and orderly environment. A focused and nurturing school environment free from harm must exist throughout the entire school. The school climate needs to be conducive to teaching and learning for all the students and staff (Lezotte, 2011).

Lastly, home and school relations are necessary for a parental understanding of the school's basic mission. The partnership between parents and schools also plays an important role in helping achieve overall school success. At the same time, school reconstruction terms such as shared leadership, teacher leadership, distributed leadership, and transformational leadership emerged because of this educational research. In the 1980s, instructional leadership arose as a strong,

directive leadership focused on curriculum and instruction by the principal as the leader (Edmonds, 1979; Hallinger & Murphy, 1985, Hallinger & Murphy 1986).

Instructional Leadership

Instructional leadership is a leadership style with top-down, autocratic, and transactional approach (Hallinger, 2003) that makes these leaders responsible for curriculum and instruction (Bamburg & Andrews, 1990; Hallinger & Murphy, 1985) and involves them in teaching and learning (Beck & Murphy, 1993). Principal leadership ranks second to class instruction on the influence of student achievement (Leithwood, Seashore, Louis, Anderson, & Wahlstrom, 2004). Therefore, principals have a strong influence on the school culture, influencing student achievement and school success (Hallinger, 2005; Hallinger & Heck, 1996; Edmunds, 1979). Models of instructional leadership also show that principals are the developers of the school climate by providing resources to their campus, supporting the school's vision, and maintaining high visibility to display their presence to all (Smith & Andrews, 1989).

Many researchers advocate for shared instructional leadership, (Barth 2002, Day, Harris, & Hadfield, 2001; Marks & Printy, 2003; Southworth, 2002) where administrators and teachers work together, while others believe in a shared style of leadership (Hallinger, 2003, 2005, 2008; Lambert, 1998) where principals delegate leadership to the teachers (Marks & Printy, 2003). Findings show that instructional leadership is an inclusive, flexible, dynamic form of leadership (Hallinger, 2003; Marks & Printy, 2003) with traditional ideals focused on teaching and learning, but with a more hands-on approach. Therefore, Coordinated School Health and Physical Education would be an excellent discipline to approach with this style of leadership.

The principals are more involved with curriculum and instruction alongside their teachers. Synonymous with classroom observations and direct teaching of students and teachers, principals

provide mentorship to teachers to strengthen learning in the classroom, by observing, providing feedback, and modeling instruction (Horng & Loeb, 2010).

However, due to the accountability movement and scrutiny of principals, and research in the role and influence of principals, Hallinger (2005, 2008) observed that few principals engage in these ideal leadership behaviors. This leadership style was developed with the principals as the primary source of educational expertise, but experts have found that the principals lacked the required skills (Marks & Printy, 2003). Furthermore, the research found dissatisfaction with the instructional leadership model because it focused too much on the principal as the center of expertise, power, and authority (Hallinger, 2003). However, researchers say that high-quality leadership does foster positive school outcomes (Hallinger, 2003).

Principals are the key to this model of leadership and their role includes coordinating, controlling, supervising, and developing curricular and instruction. The school leader should be an expert who is charismatic and unafraid to work hands-on with teachers on curriculum and instruction (Hallinger, 2003). The areas that seemed to work best are shared in decisions on budgets, hiring, and curriculum and instruction (Hallinger, 2003). In the instructional leadership model, teachers had greater legitimacy as leaders. The principal, along with teachers, would shape the school's goals and culture. Principals would support teachers in the shared goal of learning as the overall focus (Marks & Printy, 2003). In this model, all leaders, administrators, and teachers are held accountable since they are all involved in the foundation of the school's curriculum and instruction.

The instructional leadership model is goal-oriented and intended to improve academic outcomes. The model depicts the principal as a culture builder. Hallinger (2003) shares the three dimensions the principal needs to concentrate on. The first is defining the mission. The mission

needs to be clear, with measurable goals and focused on academic progress. Secondly, the principal needs to manage the instruction program by supervising and evaluating instruction, coordinating the curriculum, and monitoring student progress. Lastly, a key leadership responsibility of the principal is to promote a positive school climate. To secure this, the principal will need to protect instructional time, promote professional development, maintain high visibility, provide incentives for the teachers, provide incentives for learning, and ultimately support teaching and learning (Hallinger, 2003).

From decision making to capitalizing on professionalism, the partnership between administration and staff is a necessity in this model. Instructional leadership is shared and has replaced the hierarchy of traditional education. Principals must take the role of an instructional leader by analyzing and forming the curriculum, instruction, and assessment to achieve success in the school (Marks & Printy, 2003). These researchers also agree that this collaborative approach needs to start with the development of a mission and goals with team effort. Along with coordinating, monitoring, and evaluating the curriculum, instruction, and assessments, instructional leadership states that the principals need to foster a supportive work environment that will promote a climate for learning. Even though this is a new leadership model, it is archaic in that it depends on their followers. The unique idea of organizational management brought about with instructional leadership shows principals the impact they have on their schools by the teachers they hire. Likewise, principals realize the effect they have on the school by how they assign the teachers, as well as on how they retain the teachers. Principals are also becoming aware of how they can create opportunities for improvement within their schools. The environment they create needs to ensure high-quality staff, armed with the appropriate administrative support and a plethora of resources (Horng & Loeb, 2010).

A review of the literature over twenty years, from 1980-2000, shows 125 empirical studies on instructional leadership. The studies conclude that through the instructional leadership style, principals contribute to school effectiveness and student achievement through the actions they take (Hallinger & Heck, 1998). These leaders can, in fact, influence what happens throughout the school and within the classroom. Leadership is the most influential factor in shaping the purposes of the school (Bamburg & Andrews, 1990; Goldring & Pasternak, 1994). Researchers find that the mission building is influenced by socio-economic status and school size (Hallinger & Heck, 2002; Hallinger & Murphy, 1986), therefore making the principal's role extremely pertinent to the cause. The school's mission, in turn, influences the quality of school outcomes through the alignment of school structures, like academic standards, time allocation, and curricula (Hallinger & Heck, 1996). A principal's hands-on supervision of classroom instruction, teacher effectiveness, and student achievement, usually at elementary school, could be due to school size (Hallinger & Heck, 1996). Researchers have also found that school context does affect student achievement (Hallinger & Heck, 1996), whereas socio-economic background does not (Hallinger & Murphy, 1986).

In the 1980's, instructional leadership was the model of choice. The literature on effective schools shifted to empowerment, shared leadership, and organizational learning, along with transformational leadership in the '90s (Hallinger, 2003). On the other hand, this shared instructional leadership helped to empower teachers and strengthen principals as facilitators of teacher growth (Poole, 1995). Also, Blasé and Blasé (1999) found that instructional leadership has fostered positive changes in pedagogical practices. The instructional leadership style has shown innovative techniques with a campus that is willing to take risks for the benefit of the school. Another researcher found that teachers were held accountable and responsible for the change (Louis, 1994). In Louis' research, he identified nine functions with three areas of focus: the

mission, performance, and culture of the school. Instructional leadership seeks higher levels of commitment from school personnel to collaborate on organizational goals through shared leadership.

The Wallace Foundation (2010) found that leaders affect student learning by influencing teachers' motivations and working conditions within the schools. They also cautioned educators against a narrow focus on classroom instruction. They saw that growth in student achievement was due to strong organizational managers that practiced effectiveness in hiring and supporting staff, allocating budgets and resources, and maintaining positive working and learning environments. The Wallace Foundation (2010) also found that with more time spent on organizational management, the better school outcomes can be, reflecting higher test score gains, and positive teacher and parent assessments of schools' instructional climates. However, there were still skeptics who wondered if principals had the necessary will and skill to carry out this hands-on directive leadership (Bossert, Rowan & Lee, 1982). Instructional leadership was seen as an impossible dream with findings that class observations marginally led to improvements in student performances (Cuban, 1988). Ironically, no evidence has been found to show that the frequency or duration of walk-throughs enhances the instructional climate of the school or student achievement (Webb et al., 2008). They also found that principals only spent a fifth of their time on organizational management, whereas administrative tasks such as student discipline and compliance paperwork comprised a third of their time at work (Horng & Loeb, 2010).

Principals must have a strong focus on the recruitment, development, and retention of their teachers since personnel management is shown to be critical to improving schools (Beteille et al., 2009) and successful when it is strategic (Balu, Horng, & Loeb, 2010). Professional development is shown to be a tool to retain effective teachers and help nurture more ambitious teaching goals

(Horng & Loeb, 2010). On the other hand, professional development is sometimes seen as coaching for low performing teachers and, in some cases, as a punishment to encourage school transfers. Leaders should understand why teachers are not performing at a satisfactory standard and target the development or removal of these poor teachers. Effective organizational managers have teachers who are more likely to turn to their leaders and other teachers for resources or advice due to the strong supportive environment; therefore, developing a strong, nurturing working environment in which teachers have access to support they need is essential to success (Horng & Loeb, 2010). Through the theories and changing educational policies implemented by our nation's leaders, positive gains have been made in education through the development of professional standards for our educational leaders.

Professional Standards for Educational Leaders (PSEL)

Currently, educators and researchers have a better understanding of how leadership can positively contribute to student achievement. Given this growing knowledge of the demands of the profession, educational leaders congregate to articulate this new direction through new standards. Educational leaders gather to produce foundational principles and dynamic professional standards to steer their profession and keep up with the current demands of the professional practice, from preparation and evaluation to policies and procedures. By conveying the scope of the work and the values that the profession stands for, this framework suggests how practitioners can achieve the outcomes that the profession demands, and the public expects. Educational leaders developed ten standards that guide their profession and ultimately strengthen the success of student learning (National Policy Board for Educational Administration, 2022).

- Standard 1 focuses on the development and advocacy of a shared mission, vision, and core values of high-quality education.

- Standard 2 focuses on ethical behaviors, according to professional norms.
- Standard 3 focuses on the strive for equity of educational opportunity and culturally responsive practices.
- Standard 4 focuses on the development and support of intellectually rigorous and coherent systems of curriculum, instruction, and assessment.
- Standard 5 focuses on the cultivation of an inclusive, caring, and supportive school community.
- Standard 6 focuses on the development of the professional capacity and practice of school personnel.
- Standard 7 focuses on fostering a professional community of teachers and other professional staff.
- Standard 8 focuses on engaging families and the community in meaningful, reciprocal, and mutually beneficial ways.
- Standard 9 focuses on managing school operations and resources.
- Standard 10 focuses on acting as agents of continuous improvement to promote each student's academic success and well-being.

With these standards put into place, the hope is that the profession will be consistent with the needs of the public on building a culture on combating obesity and promoting a healthy school. These standards are the guiding support to preparation programs and the overall profession. With educational leaders articulating the standards themselves, they can reflect on the profession through their own experiences, needs, and wants.

Summary

Researchers identified key leadership practices based on schools that beat the odds. Over the past 40 years, additional qualitative and quantitative research identified effective school leadership practices that close achievement gaps, improve the quality of teaching, and create warm and welcoming school cultures. Few researchers have looked specifically at a principal's support, effective PE programs, and school-wide coordinated school health initiatives, even though it appears evident that instructional leadership is connected to effective physical education programs and schoolwide health.

Instructional leadership today has emerged as the product of varied efforts to focus on student success in America. The need for educational reform has been of great concern for the nation due to many factors. National leaders have, and continue to, evaluate educational policy to address factors, such as poverty levels, equal educational opportunities, and the descending rank of the American educational system, compared to other countries in the world. Politicians constantly try to address educational issues and create recommendations for the improvement of our nation's educational system.

School health initiatives are hot topics of concern in that research is showing the impact a child's health can have on academic success. Therefore, Coordinated School Health Programs and physical education are a main area of interest, with many entities getting involved to support schools, be it at national, state, or local levels. Therefore, the premise of this study is to find out what leadership knows about childhood health and what they do about it in their schools to impact this topic of concern by building a culture to support.

Childhood obesity is a significant issue that affects children in several ways from physical, academic, and emotional. Schools play an important role in combating childhood obesity and

numerous government policies and advocacy groups promote schools as key players in addressing childhood obesity (Yuksel, et al., 2020). However, many schools are falling short of addressing these issues. Schools confront many issues and have a broad range of expectations while receiving only limited resources. However, principals who are effective instructional leaders have overcome many similar obstacles in closing achievement gaps and improving the quality of their schools. Few studies have considered how principals can use aspects of instructional leadership to create quality physical education programs and schoolwide health initiatives. This study seeks to address this missing area of research by focusing specifically on the role of the principal and instructional leadership.

Chapter 3: Methods

In this next section, I review the purpose of the study and research questions, significance of the study, as well as the research design, methodology, data collection methods, setting, participants, data analysis, trustworthiness, subjectivity, and limitations/delimitations of this study.

Purpose and Research Questions

The purpose of this study was to explore the efforts of a principal at a Title I elementary school to develop and sustain a culture of addressing childhood obesity on the U.S.-Mexico Border. The U.S.-Mexico border has a prominently ethnically minoritized, Hispanic population, that is at a higher risk for obesity (USDHHD Office of Minority Health, 2020). Adults who are obese, tend to have children who are obese due to family impacts. Childhood obesity has an impact academic achievement. Therefore, examining this area was needed to identify the best leadership practices to support a healthy school environment, which can help decrease childhood obesity and increase academic success.

This study was guided by the following preliminary research questions:

1. What efforts has the principal undertaken to address childhood obesity in a Title I elementary school on the U.S.-Mexico border?
2. How are these efforts helping to define and shape the school's culture?

Significance of the Study

Educational leadership greatly influences the school's culture and attitude (Hesbol, 2019; Lee & Louis, 2019). A principal's knowledge, skills, attitudes, and actions regarding health and physical education makes a difference to maintain a healthy school culture. Principals can influence the entire campus, in turn the entire school community from teachers, staff, and families. The principal is not being researched like parents, teachers, and students are being

researched (Phillips & Silverman, 2015; Rikard & Banville, 2006). Current research studies are focused on how brain activity is enhanced with physical activity and how a healthier child learns better (Di Liegro et al., 2019) which is a benefit to schools and students as seen in the improvement in overall health, obesity status, academic success, and ultimately standardized test scores if this culture is built. This study aimed to identify some of the best practices and challenges faced by principals building a culture of supporting children's health on the U.S.-Mexico border during the rise of childhood obesity. Together, these findings and conversations about how principals can be prepared and professionally supported to deal with childhood obesity through coordinated school health programs, physical education, and nutrition can support student learning and academic success. School principals operate in a complex world with high pressures, priorities, and policies, and understanding the context in which they work can help to understand their actions toward each child's overall health. Furthermore, this study can support the development of more in-depth studies, which will address issues regarding childhood obesity in minority students.

Research Design and Methodology

My study was grounded in the interpretivist paradigm (Sipe & Constable, 1996). As noted by Sipe and Constable (1996), "interpretivists attempt to understand situations from the point of view of those experiencing the situations" (p. 158). Accordingly, I conducted a qualitative research study. Qualitative research focuses on understanding human behavior from a small number of people on a specific location and goes in depth with open-ended questions (Glesne, 2016). Qualitative research, also known as fieldwork, transpires in commonplaces rather than in the laboratory (Glesne, 2016). Outside of the lab, in a natural setting, a researcher can acquire relationships with those who live and network there. This also improves and maintains access, as

well as generates and nurtures rapport, trust, and interactions (Glesne, 2016). I also had the opportunity to speak directly with the people and spend time in their school setting.

This study was a qualitative case study of a public school administrator, their campus, and the culture they have built to combat the childhood obesity epidemic (Lichtman, 2023). The most unique aspect of a case study in social science and human services is the selection of the cases to study. Specifically, this case was an intrinsic case study (Stake, 2008). In this intrinsic case study, I pre-selected the case. This case study was chosen not because it is a representation of other cases, but because of the particularity and ordinariness of this case itself. The purpose of this case report was not to represent the world but to represent this specific case (Stake, 2008). The campus was selected based on the following: a) its geographic location on the U.S.- Mexico border; b) the principal's tenure and the district's recommendation of being an effective principal with a view of a successful coordinated school health approach, focused on overall health; c) and the school's low socio-economic level. This intrinsic case study was defined by an interest in this individual case and this location draws attention to the question of poverty level, as a Title 1 school, and what specifically was learned from this single case and its' culture to help combat childhood obesity (Stake, 2008).

This intrinsic case study was described with an intensive analysis of topics and data focused on describing, documenting, or discovering characteristics of an individual, a group of individuals, an organization, or a phenomenon. The goal was to understand the situation through an insider perspective with a significant amount of time spent in the environment. The report of outcomes was generally expository (Algozzine & Hancock, 2017). According to Merriam (2002), insights can influence policy, procedures, and future research. This study will help improve practice and policy for a healthy school environment to support academic achievement.

Data Collection Methods

After the university IRB process (Appendix B), I collected multiple sources of evidence over the Fall 2023 semester including interviews, and other supporting data through observations. I spent extended time on site, personally in contact with activities and operations of this case, reflecting and providing meanings of what was going on. Any details of life I am unable to see for myself, I obtained by interviewing people who see it or by finding documents recording the events (Stake, 2008). In the following subsections, I elaborate on each source of evidence.

Semi-structured Interviews

I conducted interviews that provided more detail than a standard survey. Interviews were necessary when I could not observe behavior and feelings (Stake, 2008). I facilitated pre-determined open-ended questions through a semi-structured interview to explore themes and responses further. See Appendix C for the interview protocol. This interview format allowed participants an opportunity to narrate their personal encounters and be specific about the knowledge and experiences with their school culture and childhood obesity. When I conducted interviews, I created a comfortable environment by developing a rapport and a secure environment that ensured confidentiality and generated trust (Glesne, 2016). The interview was conducted face-to-face in their offices or classrooms, a location selected by the participant. With the interviewee's consent, the interview was audio recorded, which allowed for full attention to be on the subject. The interviews lasted between 8 to 25 minutes. These semi-structured interviews were exploratory interviews that followed a protocol but allowed for discovery (Magaldi & Berler, 2020). I transcribed the interviews. Final transcripts were crucial to capture what participants shared and assisted me with the data analysis.

Questions were planned out to help with the flow of the interview with an interview protocol (See Appendix C for Interview Protocol). Questions were designed to elicit an individual's experiences or understanding of the topic of childhood obesity and school culture with broad or specific, and generally open-ended questions. Interview questions stated for the study were composed of questions to include the principal's role, school roles, school culture, coordinated school health programs, and physical education programs that were implemented in the schools as well as questions on standards, outcomes, and principal preparation. The interviews were done during school hours, on campus, with campus personnel, and with district approval. I asked follow-up questions to encourage elaboration. I was prepared to reframe questions, kept notes to avoid interrupting and for later clarification, as well as utilized paraphrasing and summarizing to ensure a proper understanding of the interviewee's meaning.

Observations

Observations, with detailed notes, were conducted at the start of the day, during breakfast and lunch service, and within the specific classes of physical education and health education. School observations, including the main office, cafeteria, and hallways, were conducted to detect the school culture, as well as to collect artifacts, such as posters, student work, and signage, that may provide insight into the school's health environment, culture, and instruction. These observations were conducted in a naturally occurring way to examine what was happening in each situation and gain a full picture of the school culture in each environment. My observations took place in the original setting rather than in the way a secondhand interview happens. My qualitative observations were collected using my five senses: sight, smell, touch, taste, and hearing so I recalled and described all things happening in these environments from health posters, physical activity equipment, even cafeteria food (Glesne, 2016). It was a subjective measure of gathering

information. I noticed things that had become routine, and that the interviewees may have left out unconsciously. The observation was also triangulated emerging findings due to it being used in conjunction with my interviews (Glesne, 2016). I heeded Bogdan and Biklen's (2011) advice against talking to anyone right after an observation and to write field notes as soon as possible.

This observation process could have been considered intimidating, but Taylor and Bogdan (2015) offered suggestions for recalling and recording data that I used during this study. Following Taylor and Bogdan's (2015) recommendations, I started my observations using a wide-angled lens to capture the activity, sounds, behaviors, and mood of the environment that were taking place and noted the observations. I then focused my attention on the specific person or action, and blocked out all the other people and actions. Once each observation was finished and I left the setting, I recorded field notes, summarization, and outlined the observation. I jotted keywords that stood out later, mentally playing back remarks and scenes during breaks of talking and observing (Taylor & Bogdan, 2015).

I recorded behavior as it happened, in case participants were not willing to discuss the topic. Frequent, shorter observations were recommended and were used in this study (Glesne, 2016). I spent six days, randomly selected on campus, to see how events, like breakfast, lunch, physical education, happened naturally to capture the school health environment. As an observer, I primarily observed but had some impromptu interactions with the children and teachers during breakfast, lunch, and physical education class (Glesne, 2016). These interactions were prompted by the students and teachers, which I captured in my observation notes for data analysis. The main goal of my observation was to better understand the research setting, its participants, and their behaviors, learn the meanings, norms, patterns of the way of school life, and learn from people on the campus. As I observed, I continually questioned my assumptions and perceptions of what I

was witnessed. In the observation process, I took field notes that were descriptive and analytical, to describe the atmosphere and school health environment, striving for accuracy and avoided being judgmental (Glesne, 2016). These notes enabled visualizations of the moment, the person, the setting, and the day.

As recommended by Glesne (2016), I used an audio recorder to help analyze the observation, to recall information regarding the visit and to understand the overall culture of the school. Additionally, I used quotations on direct quotes. The notes were highly descriptive to include enough detail to recall what I experienced and observed. My reflective details like feelings, reactions, hunches, speculations, working hypotheses, comments, and thoughts about the setting, people, and activities were noted as well (Glesne, 2016).

Case Setting

This district is composed of six elementary schools, two middle schools, one high school, and one early college high school. Currently, it is the home to just under 6,000 students, with 74.8% economically disadvantaged, 94% Hispanic, 27.5% English Language Learners, and all receiving free breakfast and lunch.

With a rich history, strong character, and a wealth of people willing to devote their energy and spirit to their children's education, they are poised to reach their goal of becoming one of the premier school districts in the region, the state, and the nation. The SD is consistently seeking partners in education to offer the SD's students high-quality educational experiences that will feed the SD's mission and vision. The mission of the SD is to lead today to positively impact tomorrow. The SD's vision is to support and embrace diversity in a multicultural society. The school community thrives in a safe, engaging, inclusive learning environment. They provide equitable opportunities to ensure their future-ready students are inspired to explore, learn, grow, and excel.

Believe Elementary School is a Title I elementary school in SD. This campus has a diverse Coordinated School Health Team, meaning many different teachers are on this team. This campus will be accessible to me, the researcher. This campus serves a predominantly Hispanic, low-income population. The campus has only one administrator, an instructional coach, two physical education teachers, two wellness coordinators, a school nurse, and a school counselor. There is also a social worker assigned to the school.

According to the Texas Education Agency 2022 School Report Card, Believe Elementary School has an overall B rating, with a C in student achievement, B in school progress, and a B in closing the gaps. The campus has 96.6% of its student population to be Hispanic, 89.9% are considered economically disadvantaged and 47.3% Emergent Bilingual/English Learners. Class sizes from Kindergarten to 5th grade range from 13-24. Students attend a 45-minute physical education class four days a week, and have recess for 15 minutes every day during a 30-minute lunch. Brain breaks are also highly encouraged throughout the day. Students are tested in fitness each year in 3rd through 5th grade.

Believe Elementary has a Positive Behavior Intervention Supports (PBIS) team and is a No Place for Hate School. Other extracurricular activities include a Student Leadership Team, Robotics Club, Folklorico Dance, the Mother-Daughter/Father-Son Program, Nike Day Club, and Choir and Orchestra Club. This campus also feeds into a medical magnet and Pathways in Technology (PTECH) middle school programs.

Participants

For this qualitative case study, I used purposeful sampling, in order to gather in-depth and detailed information about the investigation from personnel selected as people who can share experiences in this area. This is said to provide information-rich data (Glesne, 2016). The primary

interviewee was the principal or administrator, who is knowledgeable and involved with coordinated school health and physical education, to learn what they knew and do about childhood obesity. I interviewed other members of the faculty and staff to verify the information provided by the principal through semi-structured interviews.

The Coordinated School Health (CSH) Team will be included in the study to provide information of the principal's role in the fight against childhood obesity. Participants in this study included key players at the campus including:

1. The Principal, who oversees the whole campus and has the biggest influence on the school's culture.
2. The CATCH Champion, who oversees and supports the CSH Team by passing on information from the CSH curriculum and supporting all components of the Whole Child Model.
3. The two Physical Education and Health Education teachers, who are responsible for teaching the Physical Education and Health Education Texas Essential Knowledge and Skills to all students (grades Pre-kinder to 5th grade) through their district curriculum.
4. The two Wellness Coordinators who can be any part of the campus staff, a general education teacher, the Nurse, or the Counselor, this pair of coordinators support staff wellness through activities.
5. The campus Nurse.
6. The campus Counselor.
7. The campus Nutrition Services Manager.

A total of seven participants were included in this purposeful sample to gather a clearer view of this qualitative study that provided their perspectives on the healthy school environment and the principal's role.

Data Analysis

In this section, I describe how I analyzed the data collected for this study. I analyzed interview transcripts through transcribed files and observation notes. All audio files of interviews were transcribed. Each transcription was edited to remove all names and replaced with pseudonyms.

Table 2: Pseudonyms

Believe Elementary School, SD, County, Texas	
Role	**Pseudonym**
Principal	Paula
Coordinated School Health Champion/Team Leader	Charlotte
Nurse	Natalie
Counselor	Connie
Physical Education/Health Education/Wellness Coordinator	Lana
Physical Education/Health Education/Wellness Coordinator	Hector
Nutrition Services Manager	Janda

All interview transcripts and audio files are stored on a password-protected computer. The data was collected and thematically coded into codes, categories and then themes (Saldaña, 2016). I used process coding, also called action coding, values coding, (Saldaña, 2016) and deductive coding (Saldaña & Omasta, 2016).

I used process coding because I was in search of the principal role and the group dynamics, the campus routines, and rituals, and how this culture works together to sustain a healthy school environment. I also used values coding, to review principal efforts to address childhood obesity and in reviewing participants' values, attitudes, and beliefs, representing their perspectives and worldview on the campus culture and how it affects overall school health (Saldaña, 2016), focused on childhood health.

In process coding, categories reflected their phrases or stages. I looked at the small group dynamics connected to school health and overall school culture to support school health to include:

- Forming - An orientation of group members to each other's ways of working
- Storming - intragroup conflicts arising from individual differences
- Norming - negotiating and settling in the cohesive stage
- Performing - the small group functioning productively to achieve its goals
- Adjourning - group closure (Saldaña, 2016).

The processes was broken down into subprocesses for finer detail. I used process coding to see the movement and change over time and the dynamic account of events by finding out the process of change through questioning and observation. My analytical memos about processes reflected what slows, impedes, or accelerates the operations happening, and under which conditions are changing (Saldaña, 2016). I was able to see how events originated, evolve, and are shifting significantly from those involved. Through process coding, as a kinesthetic learner myself, I embodied each code developed from a kinesthetic experience and analyze gesturally or with whole-body movements to enact and interpret the codes (Saldaña, 2016).

A value is what you think, or feel is important, an attitude is how you think or feel about something or someone, and a belief is what you think or feel to be true. I looked at all three of

these with a focus on campus culture and school health. Values show the importance we attribute to ourselves, another person, thing, or idea; the principles, moral codes, and situational norms people live by (Saldaña, 2016). The greater the personal meaning, the greater the personal payoff; the greater the personal payoff, the greater the personal value. The second category I looked at is attitude, the way we think and feel about ourselves, another person, a thing, or an idea (Saldaña, 2016). Finally, I categorized into belief, which is part of a system that includes our values and attitudes, plus our knowledge, experiences, opinions, assumptions, biases, prejudices, morals, and other interpretive perceptions of the social world. Beliefs are embedded in the values attached to them and are considered rules of action. Values, attitudes, and beliefs are formed, perpetuated, and changed through social interactions and institutions, and our cultural and religious memberships, therefore, I looked at this in the school system (Saldaña, 2016). I used values coding to explore cultural values and belief systems, identity, intrapersonal and interpersonal participant experiences, and actions in this case study focused on the culture that supports a healthy school environment. All action were inherently a system of attitude and implies value, attitude, affect, and emotion (Saldaña, 2016).Values coding was used with the interview transcripts, and observation notes in which all the actions were documented. As I used these coding systems, I tell the participants' stories and paint a picture of the campus culture and how it affects student health. These reports provided the voices of the participants in the study.

Trustworthiness

To ensure trustworthiness in this study, I used triangulation and extended fieldwork. Using multiple data sources enhances the trustworthiness of the findings on what a participant states and what is observed through their actions and interactions (Saldaña, 2016). Trustworthiness shows

the quality and rigor of a study by spending extended time in the field for observation, interviews, and other forms of interaction (Saldaña, 2016).

Triangulation was used with multiple data collection methods and multiple sources. Triangulation served as a way to clarify meaning by identifying different ways the phenomenon is being seen. Triangulation has been generally considered a process of using multiple perceptions to clarify meaning and verify the repeatability of an observation or interpretation. Strategies included extended fieldwork over some time, cross-checking, with data triangulation and multiple data sources, at different times, different places, and with different people (Glesne, 2016).

I used the observations and interview transcripts to write descriptively, allowing readers to understand the context of my interpretations. An audit trail was used by saving and organizing all documents related to my research, interview transcripts, observation notes, and coding notes, to show a record of my research process (Saldaña, 2016). As the Coordinated School Health Facilitator for my district, my personal interest in this study can help find the strengths and weaknesses of a district's Coordinated School Health program. Due to the connection to the district, I have reflected on how it may affect the research and have searched for strategies to address the potential problem.

Subjectivity/Positionality Statement

As a professional in the field of Kinesiology, a former physical education teacher, a former university faculty, and a Coordinated School Health Facilitator, I strongly believe in the impact schools can have on childhood obesity and overall health for students, their families, and the community. In Texas, I feel school health has tried to come to the forefront with legislation being placed on schools. Coordinated School Health Programs and School Health Advisory Councils

and newly add bills to include cardiopulmonary resuscitation (CPR) and Stop the Bleed in curriculum and trainings for teachers in diabetes, seizures, and trauma informed care.

Prior to this research, I have thoroughly reflected on my role as a professional in kinesiology and pedagogy. With a current focus on Coordinated School Health, I believe strongly in the benefit of overall health and wellness. As a researcher, I am expecting to find that the principal is the key to a positive campus culture that supports children's health. I believe this campus' focus on the physical education standards, objectives, and expectations will be higher on the administrator's priority lists, along with physical activity and nutrition. I expect to find that the principal will be a key component to the success of the coordinated school health program and ultimately, child health. Lastly, I believe administrators may be familiar with the legislation mentioned earlier or the other approved CSH programs in the state of Texas. I think campus administrators will want to try new programs to improve the health, wellness, and physical activity programs in their schools by finding out what efforts the principal has taken to address childhood obesity in a Title I elementary school on the U.S.-Mexico border. I also want to see how these efforts are helping to define and shape the school's culture.

As a researcher, I would like to see more work done on the current state of Coordinated School Health programs and the Whole Child approach due to its increased connection to student learning. I believe several projects, presentations, and publications can be easily done. The Coordinated Approach To Child Health (CATCH) is Texas-friendly and has branched out to several other states for implementation and to universities to conduct more research. CATCH is still a big name in CSH, and research has enhanced its credibility (CATCH Global Foundation, 2022).

Chapter 4: Results

In this qualitative case study, data were collected to explore the efforts of a principal at a Title I elementary school, addressing childhood obesity on the U.S.-Mexico border. Also examined were how the principal's efforts helped to define and shape the school's culture to focus on children's health. The primary avenue to understand the role of the principal was through the experience of a Coordinated School Health (CSH) team, which includes the principal. The selected members of the CSH team that participated in the interviews were asked questions related to the role of the school in addressing childhood obesity, their individual role in these efforts, and their knowledge and impact on childhood obesity. During the interviews, I also wanted to discover the actions the principal was demonstrating to create a healthy school culture and what district support and resources were made available at their campus. The observations were conducted in the classroom during breakfast, in the cafeteria at lunch, and outside during physical education class. For the data analysis, the participant interview transcripts were read three times. Manual coding was used on responses by phrases or words, then these groupings developed into themes via charting and highlighting. As a result of the first cycle of coding, I read each transcript to capture general ideas that were similar. Then during the second read, I looked for ideas that focused on the principal. Finally, during the last read, I looked at culture elements and descriptions. The observation notes were also reviewed to search for common patterns. During this data analysis, the date were coded for themes and mapped back to the primary research questions.

Using purposeful sampling, the participants in this study included the campus' Coordinated School Health (CSH) team to include campus principal, CSH Champion/Team Leader, the school nurse, counselor, the two physical education/health teachers who also served as the campus

wellness coordinators, and the cafeteria manager. These key players were interviewed and provided data on the principal and the campus' healthy school culture.

All participants were interviewed in person at their campus site. Before any interview was conducted, the participants were given an informed consent document (see Appendix D) that outlined their rights and responsibilities as a participant in the study. The process of this study was discussed with each participant and their questions were answered and clarification was provided as needed. Participants were then asked to sign the informed consent document before the interviews began. Semi-structured interviews were conducted with each participant to collect data for this qualitative study, using the interview protocol (see Appendix C) to guide the interview process. The interview questions were designed to gain the participant's perspective on the role the principal plays in battling childhood obesity. The interviews were recorded, transcribed, and coded manually.

Through the interview questions participants shared multiple perspectives showing an all-encompassing scope and it included their worries, concerns, setbacks, and dilemmas faced in their campus setting dealing with school health. Participants described how they saw things happening at their campus, which allowed me to study school health topics firsthand. I was also able to see how their campus culture has developed their school health practices combating childhood obesity and enhancing student achievement.

The main audience for this qualitative case study is administrators. Principals are the target audience as the findings will provide best practices to support children's overall health through a healthy school culture resulting in nurturance of academic success. This study was conducted at one Title 1 elementary campus, with a second-year tenured principal having experience in the roles of an assistant principal, instructional coach, and classroom teacher. The participants were

experienced educators with eight months to 23 years of experience. All participants served on Believe Elementary's Coordinated School Health (CSH) team.

The findings for this study were generated from the interviews and campus observations conducted by the researcher. In this section, I will explain the themes that surfaced from the Coordinated School Health team regarding the principal's role and the impact on childhood obesity. At the end of the interview data analysis, three themes emerged: leadership attributes, role modeling, and knowledge.

Leadership Attributes

A principal is the leader of the school, and interviewees saw this principal in a leadership position, overseeing the entire campus, meeting the needs of the students and teachers so it runs in a smooth manner. The principal, Paula said, "my role is to be a support and to be a resource to not only my teachers, but to our students as well." Paula is a principal known to coordinate and collaborate with the community, health agencies, and special programs. Lana said, "Our principal is very active with us [teachers], she will bring in any ideas, flyers, or emails that she receives. She sends them to us and we make contact." The campus utilizes the principal as a main resource to help foster and encourage more positive interactions with their students and staff. The CSH Champion, Charlotte, said, the principal "is the cheerleader of the school, sometimes the disciplinarian and most importantly, the guiding hand to the success of the students." Through my observations, I saw the principal engage in behaviors that align to the cheerleader of the school. Paula was seen at the entrance greeting students by name, using high fives and smiles as they entered the campus. Paula also commented on their outfits, hair, and backpacks. On another day Paula was running the front office when no office staff were present, greeting teachers, substitutes, parents, and students.

The first-year physical education and health teacher, who is also a campus Wellness Coordinator, Hector, said the principal "serves also as a guide. So, whenever we have a question or some type of concern, she guides us to get the right answer or see how we can attack a certain situation. She is a good guide and support we can rely on." She supports the school in every initiative.

All members of the CSH team who were interviewed stated that the school's role is to educate children in a safe environment with district and community support and resources. This is the second school year this administrator oversees this campus as the principal working changing the culture, which they all said takes time. However, the CSH team states they are moving in the right direction. Because the principal is the only administrator on campus and they have no assistant principal, the interviewees feel this contributes to not moving as fast as they would like, but they all said they are moving towards a more positive culture with more education on mental health and the focus on a healthy school culture. The attributes the principal demonstrated throughout all interviews and observations were identifying a goal and staying committed to building the healthy school culture for all her campus. The process was positive, yet slow, but moving towards the goal. Changes are slow, but the principal is leading her team all the way through it. The principal stated she is aware of the slow change and the amount of work it takes. The CSH team says the attitude is changing and they are finding a better understanding of overall school health.

The CSH team states that everyone has a role: teachers, custodians, cafeteria staff, parent liaison, and administration. The campus' CSH team tends to communicate with each other for ideas, concerns, and presentations via text, e-mail, and direct contact in each other's classrooms. The CSH team is very supportive of each other with the principal leading. Charlotte, the CSH

Champion said, “we are just starting to gel and understand that everyone, everyone, in the school plays a vital role, in not only the academic education of the children, but physical and mental successes as well.” They say the nurse, counselor, janitorial staff, physical education, and health education are starting to get to the point where “we feel we can do what we're going to do” with the support from this principal.

Being a small campus, Paula is understanding of her role and that of the teachers. The principal said, “This campus is a very small campus and so many people wear tons of hats, and I know from what teachers tell me is that a lot of them feel very overwhelmed by what is asked of them. But again, this goes back to being healthy, not only physically, but also mentally.” The principal changed the Wellness Coordinators this year to be the physical education/health teachers because they are the most knowledgeable in wellness. Charlotte, the CSH Champion stated that the principal is “a very active listener and she fosters new ideas, and she allows teachers and coaches to bring their natural talents in school out.” The principal, Paula was described as a positive, helpful influence that was open to and allowed teachers’ interests to support their students.

> Lana, the physical education/health teacher, who is also a Wellness Coordinator, said,
>
> “Because she is the leader, the head of the school, the one that brings in a lot of the programs…..she is the one that makes the big decisions on what we can and cannot do here at the school…..she plays a very positive role with us. She has been very supportive with programs that we want to do, activities that we want to present. So she has been a very positive administrator here with us.”

Hector said, as the principal she has helped them bring programs to the school. The principal helped them when they have any ideas or things to try, “The principal is very supportive of doing

those ideas because it will help to motivate the kids and keep them moving." Lana said the principal "actually came in to make a change. The principal has been very supportive with our physical education program. She pushed us to even create after school programs for the kids and little activities for them. She's been very supportive with speakers that we have been wanting to bring in with schoolwide events such as the state school walks. She has been very available for that." The campus supported a Safe Routes to School program by the County Department of Public Health and local law enforcement to teach students how to walk around in their neighborhood. Paula was heading the planning sessions for the event and was right along walking with the students to the local park where students played and walked back to school.

In addition to providing support for programming, the principal was also described as supporting the development of lesson plans in the physical education classes that was directly connected to decreasing childhood obesity. Lana said, "Our principal is very active, very open to new activities, to programs to providing game days or field days for our kids. She helps us out so much with all that." Hector feels like "The principal has a big part in helping us, to expose us, to more ideas or more different programs that come into the schools to help these kids expose them to different things….to bring people in to show them, martial arts, stuff like that. So I feel like that's resources that we can help to fight obesity." The principal's interest in improving lessons to address childhood obesity was also reflected in her own reflection of what her role is in this area. When focusing on her role in addressing childhood obesity, the principal stated,

> "my role in addressing childhood obesity is giving my teachers time to look at lessons that reflect on being more healthy inside and outside of the classroom and that not only includes eating well and sleeping well, but that also includes a lot of the stuff that has been brought onto the campus which is brain breaks, getting the brain and the dendrites moving so that

students continue to want to learn and it helps the whole child not just a number on the scale."

As an instructional specialist, Paula has made instruction a focus on her campus with the interest in their lesson planning, the variety of activities students are exposed to, and the programs coming on her campus. Learning is her focus and she wants everyone to be life-long learners in overall health.

The principal wishes she could do more to create that home and school connection by working closer with the parent liaison who can provide classes to support the culture of being healthy, not only at school but at home as well. The CSH team also stated that communication is the key. The team identified that this specific campus is in a unique, secluded location, but this gives the school a lot of power. The whole community relies on their school. Everyone on the CSH team has a different role to play with students and parents.

The principal thinks that the healthy school culture is also created "by having a good communication system between ourselves." Based on the data gathered, the principal plays a vital role in developing and supporting a healthy school culture. According to the CSH team, the culture can ooze to the rest of the campus by this one person, but a child's health does not just fall on one person. Everyone plays a vital role, but it does begin with the principal. The principal said "I wish that I could do more, I previously said, I think that as a principal, we have the ability to create that home and school connection. So then that way, there's a culture of being healthy that is being instilled, not only inside the school, but at home as well." A principal can create a healthy school culture that can improve the health and well-being of everyone at that campus including family members. Schools have the resources and responsibility to educate the whole child.

The facilities of the school help demonstrate this leadership attribute of support and also supports the role modeling activities to follow.

Lana said,

> "We have a spacious blacktop outside, some canopies to provide some shade for the kids. We have six basketball courts. We have soccer fields, a total of three soccer fields. We have a full track. We each have a good size classroom for indoor activities, and our principal has been helping us to build up our equipment because we did start off with minimal equipment, but we have equipment coming in from the principal, who sometimes asks her gym to donate yoga mats or something. And then we have our PE coordinator who will provide equipment as they have it, as we need it. They'll do anything they can to get some equipment to us and we have had an ok budget the past two years to buy new equipment for our kids. We have a good size boom box to provide fun music and get these kids moving with music."

The key leadership attributes identified in this study are a leader who is supportive, resourceful, collaborative, and active. It is a leader who coordinates resources to foster, encourage, guide and educate in a positive culture with overall health within a small campus. The principal uses the natural talents and interests of the teachers to work to her campus' benefit. Paula was viewed as a positive instructional leader bringing in programs and supporting lesson planning with a whole child focus. Learning was a main focus, to include brain breaks for students and teachers to refocus and maximize learning. The school also wants to maintain high communication within the school and outreaching to the home. The principal instills that everyone is vital and needs to be playing their part and role model to the students and their families.

Role Modeling

Across all interviews the CSH team stated that childhood obesity takes a team effort to combat, and the effort would lead to healthier students and increased learning. However, it all starts with an individual. The principal said, "I think all of us at one time, have looked at ourselves and said, I do not like the way I feel. And I think that that has prepared me to really reflect on the need for a better health." The principal herself values a healthy lifestyle. On creating a healthy school culture, the principal said lead by example. "If I want my students to look at their health, I also have to look at mine. Make healthy choices. Be an advocate for a healthy lifestyle." The principal said, "a healthy school culture, looks like a lot of movement. They're happy, they're engaged."

The campus has two Wellness Coordinators that are bringing the whole staff together to participate and do activities after school with strong support from the principal. They are changing the "we have a lot to do" attitude to a more positive, social environment that allows for a mental break with enjoyable physical activities that provide social and emotional health. This heathy school culture will be shared with students through the teacher's positive attitudes. The principal selected the Physical Education teachers to be the Wellness Coordinators due to their strengths in physical activity and health. Lana, as her other role as the other wellness coordinator said, "And for our staff, since we are wellness coordinators, we present activities for them. This is an opportunity to interact and socialize so it helps with mental health, physical health, and the culture around our school." As a wellness coordinator, Hector said, "we try to motivate the teachers to stay active, to also move, but also to create that mental break. Like when the bell rings we shut that off and we just socialize and talk and play around so they can relax a little bit."

The school staff is role modeling what do with healthy habits to include physical activity, nutrition, as well as emotional, social, and mental health. Lana said the principal "has tried to bring a positive note to our culture. She will provide after school snacks, like Bahama Bucks sometimes or teas, donuts. She will bring in little snacks for us which sometimes maybe donuts are [not] the healthiest…but they are treats, and she is trying to turn the culture into a more positive and more social campus so that the kids can feed off of that, the joy the teachers feel when they're here." Hector feels the principal "supports us like a 100%.....I've seen her turn this culture around to a more positive, more social environment where people are excited to come to work and not necessarily feel heavy about coming here. She is definitely making an impact, a high impact. She always supports us 100% in whatever you want to do and even sometimes we might be steering the ship, but they are there by our side, supporting us so we do not feel like we are alone in this."

Speaking directly to the issue of school culture, Hector says, "[The campus culture has] definitely been turning around…and I feel like slowly all the teachers are coming together, now you can see them playing around with each other a little bit more or talking with each other and just getting that vibe within each other. It's a good place to come into work, have fun and still teach the kids."

Lana also said,

> "Through physical education and health, we provide the kids the opportunity to be active. We get to see them for PE four days out of the week and we give them the full 45 minutes of physical activity. We present different activities, games, sports, that they could participate in. And then through health, we teach them about their body, about nutrition, about hygiene. So it's an all-around personal health education that they receive with us."

The principal also supports her students with a 15 minute recess every day prior to lunch.

Hector, the other physical education teacher said,

> "We want to expose them to new activities and new things because not everybody is going to enjoy a certain activity, so you want to expose them to try new things all the time to see what they can catch and maybe from there they can open a new world of being active. We want to make sure we do that. Being health educators as well, we want to show them, and educate on their body, to know their body, to know how to take care of it, so they can maximize their lifetime."

Role modeling may have seemed difficult at first. However, when it is a priority and the modeling starts with the principal, and she brings out what teacher's natural talents and interests, role modeling is easy. The school was moving and engaged. Wellness for teachers was first and fun. Then physical activity and health education trickled down to the students and their families.

Paula, the principal said a healthy school culture looks "like a cafeteria, the one that we have now, we were able to upgrade our cafeteria and get it painted and get verbiage placed all around. The cafeteria motivates students to be healthy, to be active, and to be more aware of what we're putting inside our bodies."

Actions taken by Janda, the Nutrition Services Manager said it as "We try our best and do our best [in nutrition education and feeding the student] ." Janda and her Nutrition Services staff provide breakfast in the classroom, which allows students to eat if they are late. Lunch is provided in the cafeteria. Both meals services provide students with healthy choices. Janda, the manager said, "packaging is needed and good because of the viruses." Janda said they can still give fresh foods like fruits in packages, and this can help with sliced oranges to make them easier to eat. The students are also allowed to share the packaged item with someone else if they do not consume it. The cafeteria staff also provide students with water cups that they can fill at the water fountain or

from a jug. The one challenge Janda did state was that "15 minutes is a little [time] to eat." Janda stated they do what they can with support of the principal, who can be seen at lunchtime talking to the students about their meals and encouraging them to eat their fruits and vegetables. Lana as the health teacher said,

> "I think our cafeteria staff does a pretty good job providing healthy snacks at the end of the day, I know they're not in control of the food that they serve, but they do try to give them at least a healthy snack at the end of the day, sometimes with the fruit or vegetable."

When I observed the breakfast service in the classroom, everything was organized with color coded rolling carts to supply cold and hot foods. The classrooms were also supplied with trash bags that are used after students finish their meals. As I peeked in the rooms, students were happy to show me "yeah, we got bananas today" and "I love bananas with white milk." The students also picked up after themselves with a designated leader to help ensure the desks were clean to start classwork after breakfast. At lunch service, the principal as well as other lunch monitors to include support staff, teachers, and custodians were present. Everyone, including the principal was walking around, talking with students on the choices they had that day. Lunch service included comments like "great, you choose the melon, I love melon," "eat your carrots they are good for you," "eat your chicken it will make you strong," "I love grapes, Miss," "milk is good for my bones," and "I got water." The staff also helped the students with cleaning up after themselves and lining up. This practiced role modeling incorporated in this healthy school culture is about creating a life-long habit of healthy eating and personal responsibilities. Role modeling has been a focus of the principal with teachers and support staff following her lead. The campus staff are advocates for overall wellness of the teachers and students. With the principal's leadership the campus focused on a positive vibe on physical activity, overall health, nutrition, and personal responsibilities.

Knowledge

The CSH team did see the school as the major component in educating the whole child due to all the specialized areas where the district can provide support and resources. When asked about childhood obesity, many knew it was a more prominent problem in society. The principal said,

> "We forget about what's important and that's getting kids outside being active and learning about being healthy not just today or not just tomorrow, they need to continue to be healthy when they're older and I think that fighting childhood obesity will help our students live longer healthier lives."

The principal and CSH team knew they were working slowly to educate their families more and eventually their society. The principal, thought,

> "Stigma has a lot to do with it, and I think that education has a lot to do with it. So if we prepare our students, with the education that they need to be healthy, like I said, not only physically, but also mentally, this will help combat the childhood obesity problem."

Knowledge and education preparation was diverse for each team member on children's health and childhood obesity. All preparation was individual to their role and job title. The principal had preparation through principal leadership and professional development from the district on topics from the district's Student Support Services Department that is made up of specialized personnel to include an Executive Director, a Director of Student and Community Services, a Coordinated School Health Facilitator, a Nurse Coordinator, a Prevention Specialist, and School Social Workers. Some trainings were on mental health, types of foods to eat, and brain breaks. The principal did say they need more professional development because they cannot educate if they do not fully know. The principal stated,

"I do think that we do need more information and we do need more education on how to better support our students who are falling into the obesity trap because then we will know how to better serve them…..the more prepared we are as principals…the more prepared we can be to help fight this disease."

The principal is viewed as someone who values physical activity in her personal life and in her campus for both her staff and her students. She has demonstrated support for physical activity through self-initiated district brain break training for her campus and through her support of physical education.

The CSH team said they pass on all knowledge to their staff and students, with support that comes from their principal and other experts in the field. Resources used on campus for children's health are through specialized programs to include the physical education/health teachers, the counselor, the nurse, and the cafeteria staff. The principal knew of many of these resources, to include the health curriculum, nurse lessons, and community programs. The CSH team described the district's Student Support Services Department as consists of administration experts that train the campus on the various curricula, with lesson plans, and laws on health, physical activity, and nutrition services. The CSH team says there are lots of resources for presentations and several opportunities to enhance overall health. The physical education and health teachers were both degreed in kinesiology, the science of human movement, and felt that their district Coordinated School Health Facilitator supported their preparation in many ways. The physical education/health teachers understand the importance of using several resources. Lana said "The kids are not being as active as they once were. Technologies played a big part in that. Diabetes has gone up in children. Their growth has stunted. Their abilities have really been reduced." Hector said,

> "I feel like after and during COVID, I feel like during those times children were not as mobile as they should have been, so, they did lose a lot of that ability to play and move around and stuff. I feel like we're trying to get them out of that to get them back into shape to where they are at right now."

Natalie, the school nurse was supported by the district's Nurse Coordinator who facilitates trainings and conferences to better their practice. Connie, the counselor was supported by the district Director of Student and Community Services with training and curriculum for counselors. The principal is supportive of outside experts coming in to support her specialized staff such as, the nurse and the counselor so they can be equipped to teach the students in specialized lessons. The nurse provides health screenings in the areas of hearing, vision, athetosis, and diabetes checks. The counselor's training helps her demonstrate lessons in social, emotional, and mental help, along with specialized one on one training. The principal is said to always be supportive of outside trainings to learn more and to disseminate to their unique community.

Janda, the Nutrition Services Manager said they receive training from their district Nutrition Services Director and have strict regulations to follow. Janda was also participating in trainings from the Child Nutrition Institute on her own time to learn more and stay up-to-date. Janda and her staff were praised for the work they do. The principal said,

> "They do a really good job of giving our students very healthy food, although a lot of parents again, do not agree with that. They think that we're not providing our kids with the food or enough items, but it goes back to child nutrition and how many calories a student is supposed to eat. So I think our school does a good job of promoting it, but again, I think it takes more than that. It takes educating our community."

Paula, also stated, “So I think maybe working closer with my parent liaison, so that she provides healthy eating courses for our parents.” Hector felt that the root of the problem may be starting at home, “Maybe some of the parents do not know the appropriate way to feed their kids. So they are just feeding them anything.” The principal, as well as the CSH team, also addressed the need for collaboration with parents. They all identified that education and behavior change is not something you can do on your own. The Hispanic culture contributes to the need to change the foods used and prepared for meals and snacks. The role of the school does not stop at the students. The campus does feel they are fulfilling the role of the school and trying to go above and beyond. They feel they are moving in the right direction, fulfilling those roles, providing additional programs and events to support children’s health. The team members can provide specialized resources a family may need through the support of the campus parent liaison who provides the connection between community and school. Parents can come into a welcoming Parent Resource Center (PRC) to ask questions and learn that they are not alone. The PRC consists of tables and chairs for presentations, computers, and a coffee bar for a cozy feel. The parent liaison also has a closet of resource items from back packs, supplies and school uniforms.

But they all agreed with what the principal said “We play a very minimal part….because there's only so much education that we can give. But I think that we need to make the home and school relationship, because we can tell our kids, because it's an elementary school, we can tell our kids what the things are that they need to eat to be healthy, how they need to eat to be healthy, what they need to do. But if we do not educate our parents in the same way, they're not going be healthy. Our kids cannot cook for themselves and so I think that our school relation also needs to focus on the home relation and make sure that we continue to educate our parents at home so then that way our kids are eating healthy here on campus and at home.”

Lana stated the school culture needs are that,

> "The rest of our staff does lack a little bit on seeing the importance of physical activity for our students. So, I would say that we need to work on that side of our school culture, on coming together to understand the important that physical education or physical activity actually plays on mental health and the educational boundaries of our students."

Hector stated,

> "Some of them do not think that PE is very important, but we were talking with the third grade teachers when they were having issues with the kids so we started collaborating together to find a way to….not necessarily childhood obesity but we are starting to collaborate within each other to ensure that PE is also important and make a change for the whole school."

The CSH team agreed with the principal when they said

> "I think childhood obesity is something that is a team effort. That we as a team need to focus on because healthier kids mean healthier learning and less kids wanting to fall asleep in class. And so, I think that by making baby steps and educating our families and our students about the importance of being healthy and will help turn around our society slowly."

They know they do not have a lot of parents coming in and do not get a lot of support from the families, but the parents seem to trust what they are doing with their children. They also identified that core subjects are usually a priority, but that this administrator is working on overall health to enhance overall learning.

District support comes from the Student Support Services Department with professional development, brain breaks, and afterschool programs, like Nike Day, where Nike Outlet

employees come to campus and play activities and games with the students of Believe Elementary. The CSH team does know that they need more outside partnerships with different organizations to motivate and practice healthier ways of living for their students. The community and school are a walking community and they need different types of sports and activities to learn how to play and eat in healthier ways. The district has specialized administrators, like the Nutrition Director, the Executive Director of Student Support Services, the Director of Student and Community Services, the Coordinated School Health Facilitator, and the Nurse Coordinator to assist with programming, communication, and targeted trainings. State professional development is also supported, with the Texas Association of Health, Physical Education, Recreation, and Dance Convention, and extra district funds for equipment from several grants. The physical education and health teachers felt supported with lessons and feedback. Hector said, "Our district support was a call or a text away that always helped support them and that those little things meant a lot."

It is my intention that the findings of this study can improve administrators and their campuses with a healthy school culture and show that the school's role is to educate the whole child. Chapter five concludes with analysis, limitations, implications, recommendations for practice, and future research and professional development.

Chapter 5: Discussion

This chapter begins by discussing limitations, followed by implications, recommendations for practice, future research, and the conclusion. The research questions guiding this study were:

1. What efforts has the principal undertaken to address childhood obesity in a Title I elementary school on the U.S.-Mexico border?
2. How have the principal's efforts helped to define and shape the school's culture?

The data collected were based on how the campus' Coordinated School Health team viewed the principal's efforts and actions to shape the campus' school health culture and how the Coordinated School Health Team can address childhood obesity. The findings of this study provided perspectives on educational leadership in relation to a school culture focused on health. Three major themes emerged: leadership attributes, role modeling, and knowledge. These themes can provide practical applications that can aid principals at their campuses.

For Paula, this was her second year as principal at this campus. Prior to this role, she served as the assistant principal at the same campus. Before serving as the assistant principal, she was an instructional coach and a classroom teacher in the district. This principal was in a unique situation in her district as she was currently the only administrator on campus. When the principal described the campus, she stated it was a "walking campus", with no school buses in the area to pick up or drop off students. The principal described herself as a support and a resource for her campus and her special community. She also viewed herself as a role model who valued overall health. When she described her school health culture, she said she tries to lead by example, involve others, and get the home environment involved. She believes this school is in the process of evolving its culture to a more positive, healthy school culture at a slow, yet steady state.

Limitations

There were several limitations to this study. This was a case study focused on one campus with a small number of participants and was aimed at answering two specific research questions around principal leadership and efforts of the principal to create a school culture that addresses childhood obesity. The generalization and transferability of the findings is limited. Secondly, the findings of this study were based on interviews with the Coordinated School Health team and can be expanded to all teachers, as well as parents, and potentially students. Expanding the participants would provide perspectives from a different lens to help us better understand effective school cultures that combat childhood obesity.

Given my role in the district and my longstanding relationship with the campus, my assumption is that the members of the Coordinated School Health team felt enabled to openly share their experiences. Previous encounters with the team at the campus built the trust needed to support these open conversations. While not the focus of the interviews, the team demonstrated this trust as they willingly talked about the previous administration. Despite their openness and my assumptions as the research, there is no guarantee that some participants may have felt hesitation.

Also, being a case study, one geographic area was used, and by using other geographic areas, the research can be expanded. Another limitation was that the school was a Title 1 school. Other schools, with different socioeconomic backgrounds and sub-populations can be examined to view their school health culture.

Implications

The purpose of this study was to examine the principal's role and actions in combating childhood obesity. This study was trying to examine what a principal had implemented to create a healthy school culture that could assist other schools to create similar school environments. The

principal's role was one of approachable leadership that supported teachers' visions for extracurricular activities for themselves and their students. The principal's positive attitude trickled down to the teachers and staff, then to the students, who have the potential to share at home with their family. A school's culture is initially developed by the administrator in charge and at this campus suggested that this principal is highly invested in health, specifically in children's health. This campus culture was changing and was encouraging a strong positive school culture to exist, benefiting students' overall health, thus improving academic success. The principal developed a sense of community by supporting a team approach with the principal's passion for health.

All participants believed they should all model healthy behaviors and encourage a healthy school culture. The CSH team believed positive role models should model drinking more water, eating healthy, and having fun with physical activity. Role models can also support by motivating and encouraging them to eat their fruits and vegetables by simply communicating with their students on campus in the cafeteria, in the classrooms, and in the hallways. This strategy was considered an economically effective strategy being one that is free of cost to all.

The role of the parent seemed to be high on the radar of all CSH members. The parents were seen as a crucial component to success. Collaborative efforts need to be nurtured by everyone. The school culture must support a welcoming environment conducive to parents feeling supportive with parenting classes on healthy habits for the whole child. With children spending time at school and home, both environments need to be on the same page. The campus needs to be educated and in turn educate the parents on healthy behaviors. Every person on campus should be available to provide guidance to parents in their specific area of Coordinated School Health.

This study has shown that all participants in a student's life, play a significant role in child health. This study evoked the need for principals and campuses to discover ways to educate and involve parents in school health.

Recommendations of Practice

Childhood obesity is an issue that requires a multifaceted approach. Schools and principals can play an important role in preventing and addressing childhood obesity through various strategies. The school's role is to educate the whole child. The school has ample opportunity to support a healthy school culture through, but not limited to, physical education, health education, health services, counseling, and nutrition services. A campus can provide opportunities for physical activity in physical education, the classroom, and during recess. The campus can provide healthy school meals, snacks, and water. Health education can be provided to staff, students, and parents on healthy eating habits, the importance of physical activity, and overall wellness. The parent liaison, nurse, and counselor can provide school health services on maintaining a healthy weight, optimizing mental health, and empowering families to support behavior change regarding food, activity, and overall health.

The principal's role is vital as the main component in providing and nurturing the school's culture. Schools and principals can play an important role in preventing and addressing childhood obesity by promoting healthy eating habits, physical activity, and a healthy school culture. For principals, some of the attributes to consider fostering leadership skills are to be a positive, approachable, supportive, active listen, and a nurturer that grows the staff's talents. Principals also need to know they are limited as a team of one. They need the support and buy-in from their campus team, as well as the parents.

Principals need to start with a vision of a healthy self. Then set up goals for the campus based on overall health as a priority. Patience and persistence are the key.

At this campus, the team continued through their efforts, stayed excited, and continued to show small wins. The school culture was slow to change, but the team showed patience through their efforts to gain momentum and transformation.

For campuses or districts interested in supporting their leaders in this work of addressing childhood obesity, they should focus on, but not limited to, developing principals' leadership attributes, encouraging and supporting role modeling, and increasing principals' knowledge specifically related to childhood health. Principals should display commitment to childhood health and preventing obesity. The principal should have the knowledge and support to healthy habits that can influence academic success. The principal should have the ability to create a team that supports the campus vision for all participants to buy-in and take action to support a healthy school culture. The district needs to prioritize the vision of overall health and combatting childhood obesity to support the campuses. The district can support via funding, programming, and professional development.

Professional development can include more on childhood health and how it can positively affect academic success. Principals are primarily focused and evaluated on student attendance and student achievement; however, childhood health can affect both these objectives. Principal preparation and professional development can include the developing and nurturing of leadership attributes to support a healthy school culture making the workplace enjoyable and effective. Professional development can focus on the targeted functions of a Coordinated School Health team and how principals can support them. Instead of CSH being viewed by campuses as an add-on burden, principals can display the commitment to childhood health by integrating health content

into other content areas, to achieve a seamless addition to curriculum. Professional development can include topics on teacher wellness to enhance teachers' moods and motivations to support their students. Professional development should also include parents as another population to benefit from all this knowledge to enhance the school-home connection. Another focus can be prior to campus-life through principal preparation programs.

Future Research

This study was conducted at one Title 1 elementary school. This study can be replicated at campuses in different geographic locations. The study can also be expanded by including parents and students. The results of this study show many actions that a principal can take to develop a healthy school culture. Future research is still needed to discover how success can be maintained and achieve a decline in campus childhood obesity. Longitudinal studies could be used to see if strategies that schools implement to combat childhood obesity make a difference. A further look at national, state, local policies needs to be researched, as well as the role of principals in implementing the policies.

Takeaways from this study are that the principal's role does impact school culture focused on addressing childhood obesity. The themes that emerged throughout the study of leadership attributes, role modeling, and knowledge help reflect on what can affect a healthy school culture, children's overall health, and academic success.

Conclusion

The findings of this study helped us understand what a certain administrator and her actions on her campus did to develop and foster a healthy school culture that plays a role in combating childhood obesity. This study helped us understand how a principal and her Coordinated School Health team perceive the principal's role in the fight against childhood obesity. The themes,

leadership attributes, role modeling, and knowledge helped address the issue of childhood obesity and in making a difference in the obesity rates. The problem of obesity has continued to increase and one person, the principal, can lead the fight by developing and supporting a healthy school culture that is positive and nurturing for the health of the whole child. If this healthy school culture is developed and teamwork is in place, child health can become a priority leading to other positive effects like student academic success in school and developing a better quality of life throughout the lifetime of the students. To make true advances, these initiatives should be part of concerted efforts by local, state, and national governments, health and nonprofit organizations, food companies, advertisers, and individuals to make healthy weights the norm rather than the exception.

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Appendix A

NATIONAL STANDARDS FOR PHYSICAL EDUCATION

The first edition of the physical education standards was introduced in 1995 in *Moving into the Future: National Standards for Physical Education*. The initial content standards were refined and revised (from 7 standards to 6 standards) and published in 2004. *National Standards and Grade-Level Outcomes for K-12 Physical Education* is the newest revision with 5 standards.

- **Standard 1** - The physically literate individual demonstrates competency in a variety of motor skills and movement patterns.
- **Standard 2** - The physically literate individual applies knowledge of concepts, principles, strategies and tactics related to movement and performance.
- **Standard 3** - The physically literate individual demonstrates the knowledge and skills to achieve and maintain a health-enhancing level of physical activity and fitness.
- **Standard 4** - The physically literate individual exhibits responsible personal and social behavior that respects self and others.
- **Standard 5** - The physically literate individual recognizes the value of physical activity for health, enjoyment, challenge, self-expression and/or social interaction.

Appendix B

University IRB

UTEP IRB
HUMAN RESEARCH
OVERSIGHT AND COMPLIANCE

FWA No: 00001224
El Paso, Texas 79968-0587
P: 915-747-6590 E: irb.orsp@utep.edu

Date:	June 9, 2023
To:	Nancy Torres, BS, MS
From:	University of Texas at El Paso IRB
Study Title:	[2068102-1] A Case Study on Promoting a Healthy School Culture to Combat Childhood Obesity and the Role of the Principal
IRB Reference #:	College of Education
Submission Type:	New Project
Action:	NOT RESEARCH
Review Type:	Administrative Review
Approval Date:	June 9, 2023
Expiration Date:	

Thank you for your submission of New Project materials for this research study. The University of Texas at El Paso IRB has determined this project does not meet the definition of human subject research under the purview of the IRB according to federal regulations.

We will put a copy of this correspondence on file in our office.

If you have any questions, please contact the IRB Office at irb.orsp@utep.edu or at (915) 747-6590. Please include your study title and reference number in all correspondence with this office.

Sincerely,

Lorraine Torres, Ed.D, MT(ASCP)
IRB Chair

Appendix C

Interview Protocol for Principal and Support Personnel

Interview description: Interviews will be semi-structured. The interview process will follow the subsequent protocol.

1) Introduction
2) Share purpose of study and provide informed consent form to interviewee
3) Provide interviewee with the opportunity to ask questions and express concerns
4) Upon completion of consent form begin recording and proceed with interview
5) Before the first question, each participant will be asked to state their name and identify their relationship to the UTEP graduate.

PRINCIPAL QUESTIONS

- What do you see is your role as a principal?
- What can you tell me about childhood obesity?
- What is your role in addressing childhood obesity?
- What if anything has prepared you to address childhood obesity?
- What resources are available to you to help you address childhood obesity?
- What does a healthy school culture look like/consist of?
- How would you describe your school culture in relation to school health /childhood obesity?
- How do you promote a healthy school culture on your campus?
- What actions do you take as a principal to create a healthy school culture?
- What is the school's role?
- How is your school fulfilling that role?
- Tell me more about your Coordinated School Health team?
    - Who is the leader of this team? How often do you meet? What is missing from that team?

- What kind of support does your campus receive from the district to support children's health?

SUPPORT PERSONNEL QUESTIONS

- What do you see is the role of your principal?
- What can you tell me about childhood obesity?
- What is the role of your principal in addressing childhood obesity?
- What is your role in addressing childhood obesity?
- What if anything has prepared you to address childhood obesity?
- What resources are available to you to help you address childhood obesity?
- What does a healthy school culture look like/consist of?
- How would you describe your school culture in relation to school health /childhood obesity?
- What actions does your principal to create a healthy school culture?
- How do you promote a healthy school culture on your campus?
- What is the school's role?
- How is your school fulfilling that role?
- Tell me more about your Coordinated School Health team?
    - Who is the leader of this team? How often do you meet? What is missing from that team?
- What kind of support does your campus receive from the district to support children's health?

Appendix D

Informed Consents

University of Texas at El Paso (UTEP) Institutional Review Board
Informed Consent Form for Research Involving Human Subjects

Principal

Protocol Title: A Case Study on Promoting a Healthy School Culture to Combat Childhood Obesity and the Role of the Principal

Principal Investigator: Nancy Torres

UTEP Educational Leadership

In this consent form, "you" always means the study subject. If you are a legally authorized representative, please remember that "you" refers to the study subject.

Introduction

You are being asked to take part voluntarily in the research project described below. You are encouraged to take your time in making your decision. It is important that you read the information that describes the study. Please ask the study researcher or the study staff to explain any words or information that you do not clearly understand.

Why is this study being done?

This study aims to explore what a school culture of addressing childhood obesity looks like at a Title 1 elementary school on the U.S. Mexico-Border. Approximately 6-8 subjects will be enrolling in this study. You are being asked to be in the study because you play a part in your Coordinated School Health Team at your campus.

What is involved in the study?

If you decide to enroll in this study, your involvement will take place during the Fall 2023 semester and will include an interview lasting approximately 30-45 minutes. The interview will focus on your role in the Coordinated School Health Team. The interviews will be conducted in person. With your permission, all interviews will be audio recorded with either a handheld digital voice recorder or via Google meets and will be transcribed. Following the interview, you could be contacted via email with follow-up or clarifying questions. Such an exchange would require no more than 15 minutes time, 1-2 weeks after the initial interview. You will also be given the opportunity to review findings to make sure you and your ideas are being represented accurately.

This process, known as member checking, is optional and should require no more than 15 minutes time.

I will also be conducting observations on campus, but this aspect of the study does not require your participation. Observations will be held in the Coordinated School Health meeting, the cafeteria, the hallways, the nurse's office, counselor's office, health education class, physical education and physical activity areas. I will be looking for conversations, language and behaviors related to healthy school culture. (For example in the cafeteria, I will observe the fruit consumption and nutritional signage).

What are the risks and discomforts of the study?

There are no known or anticipated risks or discomforts associated with participation.

Are there benefits to taking part in this study?

We do not know of any way the participant, or the school campus would benefit directly from taking part in this study. However, the research will help inform policies and practices to support a school culture that addresses childhood obesity.

What are my costs?

There are no direct costs.

Will I be paid to participate in this study?

You will not be compensated for taking part in this research study.

What other options are there?

You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study. Choosing to withdraw or not participate will not affect your employment.

What if I want to withdraw, or am asked to withdraw from this study?

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty or loss of benefit.

If you choose to take part, you have the right to skip any questions or stop at any time. However, we encourage you to talk to a member of the research group so that they know why

you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them.

The researcher may decide to stop your participation without your permission, if he or she thinks that being in the study may cause you harm.

Who do I call if I have questions or problems?

You may ask any questions you have now. If you have questions later, you may call Nancy Torres at (915) 204-0470 and natorres@miners.utep.edu.

If you have questions or concerns about your participation as a research subject, please contact the UTEP Institutional Review Board (IRB) at (915-747-6590 or irb.orsp@utep.edu.

What about confidentiality?

Your part in this study is confidential. Pseudonyms will be used.

The results of this research study may be presented at meetings or in publications; however, your name will not be disclosed in those presentations.

Organizations that may inspect and/or copy your research records for quality assurance and data analysis include, but are not necessarily limited to:

- Office of Human Research Protections
- UTEP Institutional Review Board

Because of the need to release information to these parties, absolute confidentiality cannot be guaranteed.

I will do everything to protect privacy and confidentiality of participants. Specifically, the district, school, and participants' names will never be used in any dissemination of the work (e.g., articles and presentations). Pseudonyms for the district, school, and participants' name will be used in the dissemination of this research.

To protect confidentiality, all data collected will be kept under lock and key and in password protected computer file. Only I will have access to the recordings. The audio recordings will be destroyed 3 years after the project has ended.

The results of this study will be disseminated through a dissertation and potential publications and conference presentations.

Mandatory reporting

If information is revealed about child abuse or neglect, or potentially dangerous future behavior to others, the law requires that this information be reported to the proper authorities.

Authorization Statement

I have read each page of this paper about the study (or it was read to me). I will be given a copy of the form to keep. I know I can stop being in this study without penalty. I know that being in this study is voluntary and I choose to be in this study.

_____
Participant's Name (printed)

_____ _____
Participant's Signature Date

_____ _____
Signature of Person Obtaining Consent Date

University of Texas at El Paso (UTEP) Institutional Review Board
Informed Consent Form for Research Involving Human Subjects

Coordinated School Health Team/Non-Principal

Protocol Title: A Case Study on Promoting a Healthy School Culture to Combat Childhood Obesity and the Role of the Principal

Principal Investigator: Nancy Torres

UTEP Educational Leadership

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This process, known as member checking, is optional and should require no more than 15 minutes time.

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You will not be compensated for taking part in this research study.

What other options are there?

You have the option not to take part in this study. There will be no penalties involved if you choose not to take part in this study. Choosing to withdraw or not participate will not affect your employment.

What if I want to withdraw, or am asked to withdraw from this study?

Taking part in this study is voluntary. You have the right to choose not to take part in this study. If you do not take part in the study, there will be no penalty or loss of benefit.

If you choose to take part, you have the right to skip any questions or stop at any time.

However, we encourage you to talk to a member of the research group so that they know why

you are leaving the study. If there are any new findings during the study that may affect whether you want to continue to take part, you will be told about them.
The researcher may decide to stop your participation without your permission, if he or she thinks that being in the study may cause you harm.

Who do I call if I have questions or problems?

You may ask any questions you have now. If you have questions later, you may call Nancy Torres at (915) 204-0470 and ntorres@miners.utep.edu.
If you have questions or concerns about your participation as a research subject, please contact the UTEP Institutional Review Board (IRB) at (915-747-6590 or irb.orsp@utep.edu.

What about confidentiality?

Your part in this study is confidential. Pseudonyms will be used.
The results of this research study may be presented at meetings or in publications; however, your name will not be disclosed in these presentations.
Organizations that may inspect and/or copy your research records for quality assurance and data analysis include, but are not necessarily limited to:

- Office of Human Research Protections
- UTEP Institutional Review Board

Because of the need to release information to these parties, absolute confidentiality cannot be guaranteed.
I will do everything to protect privacy and confidentiality of participants. Specifically, the district, school, and participants' names will never be used in any dissemination of the work (e.g., articles and presentations). Pseudonyms for the district, school, and participants' name will be used in the dissemination of this research.
To protect confidentiality, all data collected will be kept under lock and key and in password protected computer file. Only I will have access to the recordings. The audio recordings will be destroyed 3 years after the project has ended.
The results of this study will be disseminated through a dissertation and potential publications and conference presentations.

Mandatory reporting

If information is revealed about child abuse or neglect, or potentially dangerous future behavior to others, the law requires that this information be reported to the proper authorities.

Authorization Statement

I have read each page of this paper about the study (or it was read to me). I will be given a copy of the form to keep. I know I can stop being in this study without penalty. I know that being in this study is voluntary and I choose to be in this study.

_____

Participant's Name (printed)

_____ _____

Participant's Signature Date

_____ _____

Signature of Person Obtaining Consent Date

Vita

Nancy Torres holds a Texas Teacher Certification in All-levels Physical Education since 2000. She has a Bachelors in Kinesiology, with a minor in Education and a Masters in Kinesiology. Her teaching experience includes elementary-level physical education, university-level Physical Education Teacher Education, and district-level support. Her awards include the 2018 United States Tennis Association Southwest Section Member Organization of the Year, the 2018 Greater El Paso Tennis Association Member Organization of the Year, the UT System Board of Regents 2010 Outstanding Teaching Award, and the Greater El Paso Tennis Association 2009 Volunteer of the Year. Her publications include Tennis on the Border: An Afterschool Program, Comparison of Activity Monitors to Estimate Energy Cost of Treadmill Exercise, and abstracts: Comparison of Two Tri-Axial Accelerometric Measures of Energy Expenditure, Accuracy of a Physiological Body Monitor to Estimate Energy Expenditure during Treadmill Exercise, Comparison of Energy Expenditure Estimated by Bi-Axial Accelerometry to Indirect Calorimetry, Tri-Axial Accelerometric Measures of Energy Expenditure Compared to Indirect Calorimetry.

Currently she works with Coordinated School Health Teams with the Coordinated Approach to Child Health (CATCH) through administration, parent liaisons, nurses, counselors, classroom teachers, physical education teachers, health education teachers, custodians, social workers, faculty and staff wellness, community agencies, nutrition services; Wellness: District Wellness, Wellness Campus Coordinators, Campus and District Health Fairs; School Health Advisory Council: Health and Wellness, Human Sexuality, Partners in Education, School Board of Trustees; Curriculum & Instruction, Professional Agencies, UTEP Partnerships.

Nancy Torres, 13liljock@gmail.com