PRECEDE Model

Priority Population: The priority population is children aged 0 to 18 years old in Texas. Particularly, we are interested in individuals who are of Hispanic origin as people who are Hispanic are expected to become the largest racial group in Texas by the year 2040²⁵

Health Condition/Problem: The health problem we will discuss is childhood obesity in the state of Texas.

Settings

 School can be used for an intervention, as students are shaped by their peers and environment. For example, having students in higher grades mentor students in lower grades is an approach that worked in other studies³

Policy Env.

- The federal government has created Child and Adult Food Care Program (CACFP) to help states fund healthy meals for students⁷
- The Affordable Care Act (ACA) requires chain restaurants to provide nutritional info to customers¹³
- The Healthy Food Financing Initiative helps fund healthy grocery stores in underserved areas, such as food deserts⁹
- The Texas Education Agency has required that 135 minutes of exercise occur every week for grades up to 6th grade¹⁷

Social Cultural Org. Env.

- Partnership for a Healthy Texas advocates for policies to decrease obesity in Texas and help Texas communities¹
- Obesity Action Coalition (OAC) helps obesity patients via education and empowerment²⁰
- The Obesity Society treats obesity as a disease that can be cured, and helps via education and research²
- Obesity Medicine Association (OMA) tackles obesity via education, treatment, and research¹

Information Env.

- Tik tok can be used to promote heathy habits amongst youth as any youngsters use this app²⁸
- Community signs can be used to convey messages that advocate for health lifestyles and against obesity
- Facilitating after school programs can educate students on how to be healthy, and include programs like the Coordinate Approach to Child Health²⁴
- Schools can incorporate healthy cooking classes and add health promotion education to combat obesity²²

Physical Env.

- Schools can keep exercise facilities open to the general public after hours to promote exercise where these facilities may be scarce²⁶
- Increased lighting on sidewalks can provide lighting for people walking late to get exercise¹⁵
- Provide information in cafeterias displaying nutritional info needed for a healthy meal²⁷
- Prolong required physical education in schools, so students do not stop having mandatory exercise after 6th grade as obesity starts in the teens²⁷

Predisposing Factors

- Many Hispanic people (HP) believe that poor health outcomes are inevitable¹²
- Amongst Hispanic families, it is thought that chubby children are healthy²¹
- For communities that saw being chubby was not healthy, chubby kids were still favored¹²
- HP generally believe they don't have enough time to exercise²³
- HP do not measure food for precision during cooking, but rather measuring is done to get a certain taste¹¹

Reinforcing Factors

- Hispanic parents are less likely to restrict access to unhealthy food¹²
- Hispanic parents are more likely to encourage their kids to eat when perceived as thin¹⁰
- HP treat overweight and obese people similarly and are well accepted, which represses action to lose weight¹²

Enabling Factors

- Increase the number of exercise facilities and make gym access free or affordable¹⁸
- Some areas are food deserts, which means these areas have limited access to affordable healthy food options. Increasing healthy food access can tackle obesity¹⁴
- Increasing health education amongst HP to teach them about the implications of obesity and how to eat healthy can decrease obesity⁸

Behavioral causes

- Hispanic children drink more sugary drinks and are less active relative to other kids¹⁰
- Hispanics have high rates of alcohol use, which increases obesity risk¹⁰

Environmental causes

- Abundance of fast food restaurants in comparison to healthy food encourages unhealthy choices¹⁴
- Lack of transportation and access to distant exercise facilities¹²
- There are less exercise facilities present in Hispanic areas due to affordability issues and safety concerns¹⁵

Health Indicators Long-term health effects

- Increases likelihood of developing chronic illnesses such as stroke, diabetes, cancer, osteoarthritis, heart disease, and sleep disorders⁵
- Causes an approximate 10-15 year decrease in lifespan⁵

Short-term health effects

- Increases the chance of decreased mobility and gastrointestinal issues⁵
- Increases the chance of psychological discomfort shortness of breath in daily activities⁵

Quality of Life Indicators

- Obesity effects psychological function due to stigma, which decreases productivity, increases absenteeism, and causes feelings of shame and distress¹⁹
- Obesity increases the risks for other conditions occurring simultaneously with obesity, such as diabetes and kidney disorders, which can increase medical costs, cause lower salaries, and decreases the likelihood of an obese person finding a job⁴

The health problem studied is childhood obesity in the Texas, where the priority population is individuals aged 0-18 with a focus on people of Hispanic origin. I chose to investigate childhood obesity in Texas as I work as a part-time medical assistant and frequently see patients of Hispanic origin who suffer from comorbidities related to obesity. As a result, I thought it would be interesting to see how this issue could be tackled from a public health perspective using the PRECEDE model. Lastly, with Hispanic Americans expected to become the largest racial group by 2040, I believe it is important to understand this group in regards to obesity so that public health officials can work to prevent any comorbidities involved with this obesity²⁵.

To begin, we will examine the behavioral causes. The behavioral causes we identified included people of Hispanic origin drinking more sugary beverages while also being less active, and high alcohol consumption¹⁰. The connection between these two points and obesity has been made by previous literature as alcohol consumption decreases metabolism, sugary drinks are high calorie, and being sedentary decrease calorie loss, which ultimately all lead to a higher risk for obesity¹⁶. This can be mitigated if people are educated about alcohol usage, sugary drinks, and sedentary lifestyle as this will change people's attitudes towards these topics, which will ultimately change behavior. Next, when looking at environmental causes, we see that abundance of fast food and difficulties getting access to exercise facilities could be related to obesity^{10,14,15}. If efforts were made to create more healthier options available in the locality and to increase local exercise facilities or improving community safety, people may feel more incentivized to make healthier food choices or become more active. However, this would only be the beginning of such an initiative as it would be necessary to change people's attitudes towards exercise and healthy food to make these facilities of use.

Now, we will look at the most important predisposing factor, which is that many Hispanic people (HP) believe that poor health outcomes are inevitable¹². This idea is rooted in people's mindsets, but can be tackled by using people of Hispanic origin who have overcome obesity in media related to this topic as people will relate better. Next, we look at the most important reinforcing factor, which is that HP treat overweight and obese people similarly and are well accepted, which represses action to lose weight¹².

This issue would involve changing attitudes, which can be accomplished by educating schoolchildren about obesity, while also explaining long term implications. Next, we look at the most important enabling factor, which is creating more healthy food options for people in underserved areas. This can be tackled by establishing grocery stores with produce or creating a community garden. Although both options are expensive, their presence is bound to change dietary habits.

The setting will be schools as students are shaped by their peers and school environment³. The policy environment can influence this setting as the federal government has created Child and Adult Food Care Program (CACFP) to fund healthy meals for students and adults in care center, which encourages both groups to eat healthy⁷. Since students only attain healthy meals while in day cares or after-school programs, this policy can be extended to encompass more meals so that students are getting more nutrition in substitution for junk food. Additionally, the Texas Education Agency has required that students complete 135 minutes of physical activity on a weekly basis¹⁷. Although this policy helps keep students healthy, I believe the total exercise time should increase to help students in areas where getting exercise may be difficult. Next, the social environment can impact students via the OAC and the OMA. Both of these entities help empower those who are obese via health education. It is worth noting that the OMA can also suggest possible treatments to those who are obese. Next, we will look at how the information environment can effect students in the school setting, where will particularly focus on Tik Tok and community signs²⁸. With Tik Tok becoming popular amongst youth, this platform can promote content about healthy living and reach students easily. On the other hand, with community signs being everywhere, such as roads/highways, students are bound to see the message on these signs as they move through town. Lastly, we look at how the physical environment effect obesity via schools and school cafeterias^{26,27}. It is important schools make an effort to keep their exercise facilities open to students and the general public after hours as some students may have limited access to other exercise facilities when not in school. Also, school cafeterias should make an effort to provide students with nutrition information needed for a healthy meal so that students can pick and choose their food options wisely when purchasing a meal in school.

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