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# Initiating a Childhood Obesity Screening Process in an Urban Pediatric Office

Kesha Thomas
kthomas6@stu.jsu.edu

**Jacksonville State University**
**Graduate Studies**
700 Pelham Rd N., 320 Angle Hall, Jacksonville, AL 36265
Phone: (256) 782-5348
http://www.jsu.edu/graduate/index.html

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# Initiating a Childhood Obesity Screening Process in an Urban Pediatric Office

A DNP Project Submitted to the
Graduate Faculty
of Jacksonville State University
in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Nursing Practice

By

Kesha L Thomas

Jacksonville, Alabama

August 4, 2023

Kesha Thomas August 4, 2023

## Abstract

**Background:** The benefit of identifying a pediatric patient with obesity is to prevent many chronic health conditions that can occur from diabetes. Pediatric patients can be at risk for prediabetes, low self-esteem, and musculoskeletal issues. The patients that are at higher risk for childhood obesity are African American and Hispanics.

**Purpose:** The Doctor of Nursing Practice project aims to identify a pediatric patient that is obese to make sure that the patient is assessed appropriately and to discuss an appropriate intervention for the patient. To make sure all pediatrics have an accurate height, weight, and A1C during their well-child visit.

**Methods:** The quality improvement project involves the 5-4-3-2-1-0 healthy habits for obese pediatric patients. The intervention used for the DNP project was (1) making sure the pediatric patient gets at least one hour of physical activity or active play every day (Brown et. al., 2018). The triage staff made sure that every child who had a well-child annual visit was weighed, and had their height recorded. If the patient's BMI was greater than 95% then the provider educated the parent about the results and encouraged the patient and parent to incorporate more exercise or active play into the patient's lifestyle.

**Results:** After the DNP project was completed the results were not significantly increased. The result concluded one patient showed up once and lost three pounds. This patient did not follow thru the whole six weeks of the project.

**Conclusion:** The project did show a significant number of patients that follow up for weight and A1C checks.


***Keywords:*** childhood obesity; prevention, physical activity, primary care

**Acknowledgments**

I would like to thank everyone who has played a part in the DNP project. I would like to give honor to GOD for being a light on my path and a protector for me. Wendell Thomas, my husband thanks for your patience throughout this long process. I want you to know I appreciate all the sacrifices you have made throughout this journey during my educational accomplishments. Thank you for cheering me on and not giving up no matter how difficult things got. These last two years were rough, and I am glad to say we made it. I want to thank you for believing that I could also attain this major accomplishment. My kids Lauren Patton and Kendell Thomas thank you for your support and for telling me that I could do this. Your kind words were heard daily. I want you two to know you can accomplish anything you put your mind and heart into. My mentor at the site, Dr. Rosalyn Morgan, I would not have been able to complete my project without your permission and the knowledge you have shared about the pediatric population. Thank you to the staff for all their help and support, this project could not have been completed without their assistance. I would also like to thank Dr. Lori McGrath for hanging in there with me. It has been a long and long treacherous road to get here. I appreciate all you have done, and the time given to help guide me through this difficult process.

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## Initiating a Childhood Obesity Screening Process in an Urban Pediatric Office

Childhood obesity has reached epidemic levels in the United States, currently, about 17% of US children are presenting with obesity (Sanyaolu et al., 2019). Obesity can affect all aspects of children, including their psychological and cardiovascular health, and their overall physical health (Sanyaolu et al., 2019). The association between obesity and other conditions makes it a public health concern for children (Sanyaolu et al., 2019). Because of the increase in the prevalence of obesity among children, a variety of research studies have been conducted to discover what associations and risk factors are in the probability that a child will present with obesity (Sanyaolu et al., 2019). While a complete picture of the risk factors associated with obesity remains elusive, the combination of diet, exercise, physiological factors, and psychological factors is important in the control and prevention of childhood obesity, all researchers agree that prevention is the key strategy for controlling the current problem (Sanyaolu et al., 2019). Primary prevention methods are aimed at educating the child and family as well as encouraging appropriate diet and exercise from an early age through adulthood, while secondary prevention is targeted at lessening the effect of childhood obesity to prevent the child from continuing unhealthy habits and obesity to childhood (Sanyaolu et al., 2019).

## Background

Childhood obesity affects many pediatric patients. Being obese put them at risk for hypertension, diabetes, and low self-esteem. To make sure that patients also live a long and healthy life. The pediatric population needs at least 60 minutes of exercise, along with drinking plenty of water, eating fruit and vegetables, and not drinking any sugary drinks. The staff will weigh and get a height on every patient that comes into the office for a well-child exam. If the patient's body mass index is greater than 95%, the staff is then supposed to check the patient's

A1C. The problem is sometimes the triage staff is not getting those obese patients A1C, which will show to the provider that the parent needs to be educated about the possible health risk that may lie ahead if not addressed properly and promptly. To make the triage staff, know the importance of getting height, weight, and A1C for all patients with a BMI greater than 95%. Once the patient is identified as being obese. The provider can educate the parent on some healthy changes to make, such as exercising for 60 minutes a day, and then follow up in two weeks to see if the patient is adhering to an exercise regime to begin a new and healthy journey.

## Needs Analysis

Currently, there are 13.7 (around 17% of the US population) million children and adolescents with obesity (Apperley et al., 2021). Children with obesity face a lifetime of physical and psychological complications, yet this condition is often ignored and under-addressed at most office visits (Apperley et al., 2021). Many reasons have been proposed for this gap in care services, including a lack of effectiveness of any currently available intervention, lack of engagement, availability, or affordability of the recommended intensive interventions, and provider discomfort (Apperley et al., 2021). Disparities by race and ethnicity persist ("Demographic data," 2022). In 2020-2021, non-Hispanic Asian children had the lowest obesity rate (10.1%) followed by non-Hispanic White children (13.0%) ("Demographic data," 2022). Obesity rates were significantly higher for non-Hispanic Black (22.9%), Hispanic (22.4%), and non-Hispanic American Indian/Alaska Native (20.5%) children ("Demographic data," 2022). There were also significant differences based on household income ("Demographic data,"2022). In, 2020-2021 obesity rates ranged from 9.2% among youth in the high-income group to 24.7% among the lowest-income group ("Demographic data,"2022). Seven states had youth obesity rates significantly higher than the national rate of 17.1%: West Virginia (26.0%), Kentucky

(25.5%), Louisiana (24.0%), Mississippi (23.1%), Tennessee (22.5%), Alabama (22.1%), and South Carolina (21.6%) ("Demographic data," 2022).

## Problem Statement

Among pediatric patients, does identifying a child at risk obese pediatric patients for follow-up monitoring as compared to not identifying a child at risk for childhood obesity, increase referrals for at-risk pediatric patients? Many pediatric patients are obese in this clinic. The lack of education about eating more fresh fruits, and vegetables, getting more exercise, and drinking plenty of water. Many parents think their child has a larger bone structure and not realizing how unhealthy it is to be an obese child. Parents do not understand and sometimes will not accept the diagnosis of their child being obese.

## Aims and Objectives

The overarching aims of the project were to ensure:

1. the staff was professionally trained to identify obese pediatric patients during an annual exam,
2. the patient and parent received the education needed to help the patient lose weight, and
3. the patient received education about the need to exercise at least one hour a day.

## Review of Literature

Over the last few decades, the rates of pediatric obesity have more than doubled regardless of sociodemographic categorization, and despite these rates plateauing in recent years there continues to be an increase in the severity of obesity in children and adolescents (Headid & Park, 2020). Early intervention to combat pediatric obesity is critical as obesity has been suggested to track into adulthood, and these obese children and adolescents are at an increased risk of early mortality (Headid & Park, 2020). For every hour of moderate-to-vigorous activity, there is a 10% decrease in the risk of developing obesity (Headid & Park, 2020). It is widely

accepted that obesity is caused by an imbalance between energy intake and energy expenditure, specifically when energy intake exceeds energy expenditure resulting in increased adipose tissue accumulation (Headid & Park, 2020). Increased frequency of sedentary behaviors and decreased physical activity time are significant contributors to the development of pediatric obesity as previous research has shown that decreased levels of physical activity are associated with increased BMI (Headid & Park, 2020). Obesity is associated with an increased risk of all-cause morbidity and mortality which can be reduced through improved cardiorespiratory fitness (Headid & Park, 2020).

Changing lifestyles reduces the daily time during which children are active (Bulbul, 2020). Unfortunately, a child involuntarily stuck at home burns extraordinarily little energy with indoor activities (e.g., watching TV, sitting, staying in front of a screen, and reading) (Bulbul, 2020). After a sedentary lifestyle is established, it is exceedingly difficult to develop behavioral modification in daily life (Bulbul, 2020). The parents' behaviors and control are ineffective in increasing indoor energy expenditure, but indoor exercises that will enable the child to move with fun like playing, and interactive video games instead of TV are significant tools to increase activity (Bulbul, 2020).

Regular physical exercise matters in regulating body composition during growth (Bulbul, 2020). However, the point to be noted is that changes occurring in children's bodies during growth influence motor strength and performance (Bulbul, 2020). Therefore, exercise should be planned according to the child's individual characteristics, age, and sex (Bulbul, 2020).

Physical activity and cardiovascular exercise are particularly key factors for controlling body weight and for health (Bulbul, 2020). Being thin does not guarantee perfect health (Bulbul, 2020). Walking to school, playing during breaks, hiking, going for a walk with a dog, and

shortening screen time (less time for TV and computer) may be recommended for children to increase physical activity (Bulbul, 2020). It should be kept in mind that doing physical exercise is preventive against cardiovascular disease and cardiopulmonary risk factors, but other complications including obesity-associated osteoarthritis, reduced quality of life, social discrimination, and functional limitations persist (Bulbul, 2020). Exercise alone is not sufficient in the prevention and treatment of obesity and must be applied in combination with calorie reduction (Bulbul, 2020).

Often, societal barriers pose roadblocks to early diagnosis and referral for treatment (Cuda & Cesani, 2019). Parents frequently do not recognize the problem until it is advanced, and practitioners are neither adequately trained nor have the clinical support they need to provide the ongoing chronic care needed to manage a child with obesity (Cuda & Cesani, 2019). Pediatric weight management clinics are spread across the country leaving large swathes of areas where referral to these clinics is not reasonable (Cuda & Cesani, 2019). Bariatric surgery, while being done more frequently in adolescents, is still reserved for adolescents with severe obesity, and is best accomplished in a center with expertise (Cuda & Cesani, 2019).

Practitioners rarely know where to turn to find guidance on managing the nearly one-third of their population who present for medical care either with obesity that coexists with other medical problems or because of obesity (Cuda & Cesani, 2019). The Pediatric Obesity Algorithm is an evidence-based roadmap for the diagnosis and management of children with obesity (Cuda & Cesani, 2019. These age-specific recommendations are used by practicing clinicians managing children with obesity (Cuda & Cesani, 2019). BMI is used to determine whether your child’s weight fits the criteria for overweight or obesity. It is compared with

growth charts for children who are the same age and sex as your child (“Childhood obesity,” 2022).

To learn your child’s percentile, use the Center for Disease Control and Prevention’s BMI percentile calculator for children and teens (“Childhood obesity,” 2022). Underweight is a BMI below the fifth percentile. Healthy weight is a BMI between the 5th to the 85th percentile. Overweight is a BMI between the 85th percentile and the 95th percentile. Obesity is a BMI in the 95th percentile or above.

Your child’s provider will monitor your child’s BMI and overall health during regular visits (“Childhood obesity,” 2022). They may talk to you about healthy lifestyle changes you can make as a family (“Childhood obesity,” 2022). If your child’s weight does not respond to those, your child’s provider may recommend medicine (“Childhood obesity,” 2022).

The good news for parents is that childhood obesity is reversible (“Childhood obesity,” 2022). Even small decreases in weight can have a positive impact on current health and future risk of health problems (“Childhood obesity,” 2022). The key is to learn the basics of maintaining a healthy weight, seek resources in your community, and get both medical and mental health care for your child as needed (“Childhood obesity,” 2022).

Obesity disproportionally affects children living in poverty and children of Hispanic, Black, and Native American race/ethnicity. Children are also at increased risk for obesity if they have parents with obesity or were born to a mother with gestational diabetes (Brown & Perrin, 2018).

## Theoretical Model

Lewin’s Change Theory has three steps. The three steps in Lewin’s change theory are: unfreezing, changing, and refreezing. The unfreezing process of helping to change an old habit (Hussain et al., 2018). The change process is when a thought or feeling for change comes to

mind (Hussain et al., 2018). Refreezing is the process by which a new habit has been adopted (Hussain et al., 2018).

When a child has a BMI that shows they are obese. The provider can discuss the results with the parent and patient, to change their old habits of being sedentary. Once the patient changes their mind to become active and starts some kind of exercise, then you have gotten the patient to change their mind about their old habit. Once the patient has changed their mindset and come back to the office for follow-up and the patient has decreased their weight, progress has been made and this is the behavior that the provider would like the patient to continue.

## Methodology

The Lewin theory is very attainable for the method for the pediatric population. Once the patient has been diagnosed for being obese, the provider will discuss that the patient should make some healthy behavior changes such as diet, exercise, and so forth This is the unfreeze change, which is the first phase of the theory because the provider will notify the patient that a change will need to occur and take place so that the patient will live a long healthy life.

The second phase of the theory is change. The patient can decide how they will make small lifestyle changes. The change will not occur over the night and the results. When the patient has changed their diet to picking more healthy foods such as more fruits, vegetables, and lean and decrease the intake of processed meats, fried foods, and sweets. The patient will see an overall change in their weight. When a patient changes their sedentary lifestyle to exercising at least one hour a day. Again, the patient will see results they will be pleased with.

Finally, the last phase is the refreezing stage. The patient has adopted exercising more and eating a healthy diet. The patient is pleased with the results from the hard work and dedication they will continue with this process until they have reached their goal. Once the goal is reached, the patient is fully aware of how to maintain the situation. Even if the patient falls off

the bandwagon, the Lewin theory is easy enough that they can start all over to think in their mind that a change is needed, make the change, and maintain the new way of thinking for exercise and diet.

**Setting**

The DNP project was conducted in a pediatric. The pediatric clinic is in an urban underserved community. The clinic is privately owned by a pediatrician in a rural southeastern city. The pediatrician was raised in this community and wanted to come back to serve her community. There are eight full-time staff that work at the rural southwestern pediatric clinic. There are five rooms for the well annual check-up and on the other side of the building three more rooms where the sick patients are seen.

**Population**

The population was direct healthcare workers in the pediatric clinic. There is one pediatrician, and four nurse practitioners all are full-time employees. The triage staff comprises four full-time employees, the titles are licensed practical nurses.

**Inclusion/Exclusion Criteria for the Population**

Inclusion criteria: The clinic currently has eight full-time employees. Exclusion criteria: Part-time employees, medical allied health personnel, and nursing students.

**Recruitment**

A flyer was placed in the break room and the triage rooms. The flyer notified the staff when the project will begin. The staff also had a sheet to inform them on how to identify if the pediatric was in the obesity category. The staff was informed that any patient that BMI was 95% or greater should have their A1C checked. That way all patients were being assessed properly for their well-child visit.

**Consent**

A consent form was presented providing information about the project to assist the staff with participation (Appendix A). The staff that took part in this voluntary project helped to identify obese children over 6 weeks. If the staff wanted to stop participation in this process, they could without penalty or repercussion.

**Design**

The DNP student used the 5-4-3-2-1-0 concept for this project. The intervention that was used was number 1 and which showed that the patient should get at least one hour of physical or active play every day (Brown et al., 2018). This healthy habit plan is something all pediatric patients can benefit from (Appendix B). The table includes: 5- eat to 9 servings of fruits and vegetables every day, 4- eat at least 4 meals as a family together at home every week, 3-eat three meals a day (including breakfast), 2- watch <2 hours of screen time daily (TV, tablet, iPad, and video games), 1- get at least 1 hour of physical activity or active play every day, and 0- drink almost no soda, sweet tea, juice, or sports drink ("Brenner FIT," n. d).

**Data Review Process**

The patient information was reviewed through the EMR by using Webedoctor. The patient information was reviewed during the first week of the intervention and then every two weeks to see if the patients that were diagnosed with obesity followed up every two weeks for weight and A1C checks. Caption patients for the first week who were diagnosed with obesity allowed the PI to see which patients were identified as obese.

**Risks and Benefits**

There was a minimum risk to those involved in the project. The benefit of the DNP project was that patients were addressed at an appropriate time and intervention was discussed that day. The providers could discuss the interpretation of the results of the patient's height,

weight, and A1C. The providers could give the patients and their parents the tools needed to come back from childhood obesity. The patient was required to follow up to see the progress that was made.

### Compensation

The participants were not compensated for participation in this DNP project. The participants of this project were doing their regular nursing duties. Therefore, no compensation was required for this project.

### Timeline

CITI training was completed to continue to propose the DNP project (Appendix C). The proposal development and Institutional Review Board approval occurred on December 1, 2022 (Appendix D). The implementation took place over 6 weeks. Implementing the intervention began on January 31, 2023, thru March 14, 2023. The patient was called every two weeks to schedule a follow-up for weight and A1C checks (Appendix E). The letter of support from the agency was received from the owner of the practice (Appendix F).

### Budget and Resources

This project was a quality improvement project. There was no financial budget for this DNP project. No incentives were used for those that took part in the DNP project. The resource used for the staff was the BMI chart which would help the staff to identify which pediatric patient was considered obese.

## Evaluation Plan

### Statistical Considerations

There was no statistical consideration for this DNP project. Statistical quality control is the use of statistical methods in monitoring and maintaining the quality of products and services.

### Data Maintenance and Security

The patient information will be stored in the facility's database. The personnel that are allowed access to this information will be the only persons that have permissible access to the information used for this DNP project. The patient's confidentiality will be kept and stored in a safe place.

## Results

### Results of Data Analysis

The result was not what the PI hoped for during these six weeks of the DNP project. There are several patients every year that have the diagnosis code for obesity. Many patients do not return for the required follow-up to keep from being diagnosed with other chronic health issues that come with childhood obesity until it is too late.

## Discussion

Childhood obesity is a severe problem in the United States, putting children and adolescents at risk for poor health. Obesity prevalence among children and adolescents is still too high ("Childhood obesity facts," 2022). Educating staff and parents of pediatric patients that are diagnosed with obesity is very important. This keeps the patient from following through the cracks and makes sure proper interventions are done so that these patients can live a long and healthy life. Also, the patient will not have to deal with chronic health issues and pay more for health and life insurance because of their poor health conditions. Prevention is the key to preventing childhood obesity if not then this group will grow up as obese adults.

### Implications for Clinical Practice

Given the low certainty of the evidence for these management interventions, identifying the key messages for clinicians is not straightforward (Gates et al., 2020). While the certainty of evidence surrounding the effectiveness of different intervention strategies is not strong, it is

important to consider that weight loss and management for most individuals with overweight and obesity are subject to the complexity of interrelated factors associated with body weight regulation (Gates et al., 2020). The traditional focus on weight and other anthropometric outcomes, especially in response to lifestyle and behavioral interventions that have modest impacts, is increasingly being counterbalanced by a more holistic view of health (Gates et al., 2020). This focus on overall well-being is being advocated by healthcare professionals who see first-hand how difficult and discouraging it can be for children, adolescents, and families living with excess weight (Gates et al., 2020).

**Implications for Healthcare Policy**

This study showed how much it is needed to educate the staff and the parents of pediatric patients about childhood obesity. Educating that prevention is key for the pediatric patient to live a long and healthy life without chronic illnesses. There are a lot of services for obese children. Patients that have Medicaid insurance can receive help if needed and WIC is also available for those who are eligible to receive it. If eating healthy and exercising is not helping the patient, then the provider can offer other strategies such as seeing a nutritionist, weight loss management, medication, and then maybe surgery.

**Implications for Quality/Safety**

The purpose of this DNP was to identify as many pediatric patients as possible that are obese. To make sure the provider was aware of the patient's diagnosis. Then the provider could educate the parent and the patient about the diagnosis and to maintain a healthy weight. The provider discusses exercising for one hour a day and for the patient to follow up in two weeks to if there was any progress.

**Implications for Education**

Some parents do not understand the importance of their child's health for a healthy BMI. Some parents think their child is just chubby for their age but not fully realizing the danger it could be for them living a healthy lifestyle. Obesity-related conditions include high blood pressure, high cholesterol, type 2 diabetes, breathing problems such as asthma and sleep apnea, and joint problems.

## Limitations

There were about fifteen random patients that meet the criteria for obesity. Implementing the intervention was for six weeks. The patient was called biweekly for a follow-up weight check and A1C to see if the patient was following the intervention of exercising for one hour a day. The parents were called, and voice messages were left, none of the patients followed up as advised. One patient did a follow-up in two weeks for the initial weight check and lost three pounds but did not come back anymore after the first initial follow-up.

## Dissemination

The findings for this project will be disseminated via poster, presentation, and paper. The paper will be presented at Jacksonville State University's annual dissemination day. The date for the dissemination will be July 13, 2023.

## Sustainability

Encouraging the staff to identify pediatric patients of obesity at the implementation site is key. The opportunity for the staff to identify an obese patient will allow the provider to notify the parent and to see how the patient feels about the diagnosis. This will be the time the provider can offer the patient and parent an easy intervention such as exercising for one hour every day, then follow-up for weight, and A1C check to see if the patient has a positive response to a minor

life-changing event. This is the time for the provider to see if there are questions so that they are answered and that the parent can leave the clinic knowledgeable of the diagnosis.

## Plans for Future Scholarship

The staff should follow compliance of getting all pediatric patients' weight, height, and A1C when the patient's BMI is greater than 95% during all yearly well examinations. This will help to ensure that all providers educate the parent and the patient about their overall health. Pediatric patients that are sedentary can exercise at least one hour a day which would allow the patient to lose some weight. Foremost, providers should address the issue; unfortunately, weight is often not discussed in clinical practice (Kaufman et al., 2020). Early identification of children at risk of developing obesity is essential using newer electronic health systems, which move beyond traditional growth charts to provide a wealth of information about body mass index and other relevant parameters such as social determinants of health and comorbid conditions (Kaufman et al., 2020).

## Conclusions

Not identifying pediatric patients early with childhood obesity will lead them to live with obesity as an adult. They will eventually develop type II diabetes, hypertension, high cholesterol, and cardiovascular disease. These chronic diseases will not allow the patient to live a long and healthy life. These chronic illnesses can cause heart attacks, and strokes and some may lose limbs. If the parents and pediatric patients are notified early of the obesity diagnosis, this will allow them to prevent some of the health conditions to occur. Regular physical exercise matters in regulating body composition during growth (Bulbul, 2020). However, the point to be noted is that changes occurring in children's bodies during growth influence motor strength and performance (Bulbul, 2020). Therefore, exercise should be planned according to the child's individual characteristics, age, and sex (Bulbul, 2020). Multiple interventions will be needed to

resolve this complex and ever-evolving disease. A collaborative approach by healthcare providers, the use of current guidelines, parental support, and education is necessary to combat childhood obesity (Larery, DNP, FNP-C, 2021). Despite scientific and clinical efforts, current therapies, including education, diet, exercise, drug, and bariatric surgery, to reduce obesity are failing to provide effective long-term results (Romanelli et al., 2020). Prevention programs should particularly involve the child's family. Parents should be role models for a healthy lifestyle for their children (Wyszynsk et al., 2020). Because this parental practice is challenging, parents need social support to understand the importance of changing lifestyle habits and their role in the psychophysical development of their children (Wyszynsk et al., 2020). The home environment is a significant setting in preventing childhood obesity. Parents affect a child's health behaviors. Parents can influence children's PA through encouragement, involvement, and modeling (Wyszynsk et al., 2020)) Parental support, including encouragement and engagement with children in PA, is significant in maintaining a higher level of PA in children; however, findings showed that this effect is inconsistent (Wyszynsk et al., 2020).

## References


Bulbul, S. (2020). Exercise in the treatment of childhood obesity. *Turkish Archives of Pediatrics*, *55*(1), 2–10. https://doi.org/10.14744/TurkPediatriArs.2019.60430

Centers For Disease Control and Prevention. BMI for children and teens. (2022, April 7). https://cdc.gov/obesity/basics/childhood-defining.html

Centers for Disease Control and Prevention. *Causes and consequences of childhood obesity*. (2022, April 7). https://www.cdc,gov/obesity/basics/childhood-defining.html

Cuda, S.E., & Censari, M. (2019). Pediatric obesity algorithm: A practical approach to obesity diagnosis and management. *Front Pediatric.*, *6*, 431. http://doi.org/10.3389/fped.2018.00431

Gates, A., Elliott, S., Shulhan, J., Ball, G., & Hartling, L., (2020). Effectiveness and safety of interventions to manage childhood overweight and obesity: An Overview of Cochrane systematic reviews. *Semantic Scholar, 26*(5), 310-316. https://doi.org/10.1093/pch/pxaa085

Headid III, R.J., & Park, SY. (2021). The impacts of exercise on pediatric obesity. *Clin Exp Pediatr*, *64*(5), 196-207. https://doi.org/10.3345/cep.2020.00997

Kaufman, T.K., Lynch, B.A., & Wilkinson, J.M. (2020). Childhood obesity: an evidence-based approach to family-centered advice and support. *J Prim Care Community Health, 11*. http://doi.org/10.1177/2150132720926279

Laerey, T., DNP, FNP-C. (2021). Impact of childhood obesity in America. *Journal of Pediatrics Surgical Nursing, 10*(4), 150-152. https://doi.org/10.1097/JPS0000000000000307

Romanelli, R., Cecchi, N., Carbone, M.G., Dinardo, M., Gaudino, G., Miraglia Del Giudice, E., & Umano G.R. (2020). Pediatric obesity: Prevention is better than care. *Ital J Pediatr, 46*(1),103. https://doi.org/10.1186/s13052-020-00868-7

Sanyaolu, A., Okorie, C., Qi, X., Locke, J., & Rehman, S. (2019). Childhood and Adolescent Obesity in the United States: A Public Health Concern. Global Pediatric *Health*. https://doi.org/10.1177/2333794X19891305

Wyszynska, J., Thivel, D., Weghuber, D., Hadjipanayis, A., Grossman, Z., Deren, K., & Mazur, A. (2020, November 5). Physical activity in the prevention of childhood obesity: The position of the European childhood obesity group and the European Academy of Pediatrics. Frontiers. https://www.frontiersin.org/articles/10.3389/fped.2020.535705/full

**Appendix A**

Participant Consent Form

## Informed Consent to Participate in a DNP Project

Institution Morgan Pediatrics 2010 Ave F Ensley Al 35218

**Title of DNP Project:** Initiating a Childhood Obesity Screening Process in an Urban Pediatric Office

**Name of Principal Investigator:** Kesha Thomas

**Phone Number of Principal Investigator:** 205-266-8273

**A. PURPOSE AND BACKGROUND:** Kesha Thomas is conducting a DNP project on initiating a childhood obesity screening process in an urban pediatric office. The purpose of your participation in this DNP project is to help the principal investigator increase referrals for at-risk pediatric patients.

**B. PROCEDURES:** Participants will receive information about the 5-4-3-2-1-0 concept (Baldwin & Perrin, 2018). The PI will focus on implementing step 1: get at least one hour of physical activity or active play every day. This intervention will help the patient to decrease weight and lower BMI. The study will run for 8 weeks with eight clinic staff participants.

**C. RISKS**: No risks involved.

**D. CONFIDENTIALITY:** The records from this study will obtain as confidential as possible. No individual identities will display in any reports or publications resulting from the study. All data collection and retention methods i.e., questionnaires, tapes, transcripts, and summaries will be given codes and stored separately from any names or other direct identification of participants. Information will be always kept in locked files. Only the PI and preceptor will have access to the files.

**E. BENEFITS OF PARTICIPATION:** The patients can decrease their risk of childhood obesity and experience an improved quality of life.

**F. VOLUNTARY PARTICIPATION:** Your decision to participate in this DNP project is voluntary and will not affect your relationship with Morgan Pediatrics. If you choose to participate in this study, you can withdraw your consent and discontinue participation at any time without prejudice.

**G. QUESTIONS:** If you have any questions about the study, please contact Kesha Thomas by calling 205-266-8273.

CONSENT YOU ARE MAKING A DECISION WHETHER OR NOT TO PARTICIPATE IN A DNP PROJECT. YOUR SIGNATURE BELOW INDICATES THAT YOU HAVE

DECIDED TO PARTICIPATE IN THE STUDY AFTER READING ALL OF THE INFORMATION ABOVE AND YOU UNDERSTAND THE INFORMATION IN THIS FORM, HAVE HAD ANY QUESTIONS ANSWERED, AND HAVE RECEIVED A COPY OF THIS FORM FOR YOU TO KEEP.

Signature _____ Date _____ Project Participant
Signature _____ Date _____

## Appendix B

DNP Project Intervention Protocol

Table 2. Healthy Habits for All Families to Adopt: 5-4-3-2-1-0

5 Eat 5 to 9 servings of fruits and vegetables every day.

4 Eat at least 4 meals as family together at home every week.

3 Eat 3 meals a day (including breakfast)

2 Watch <2 hours of screen time daily (TV, tablet, iPad, and video games)

1 Get at least 1 hour of physical activity or active play every. day

0 Drink almost no soda, sweet tea, juice, or sports drinks.

Table created using data from Brenner Children's Hospital.95

# Appendix C

CITI Training Certificate

h CME.

Verify at www.citiprogram.org/verify/?w49a60050-3113-4b38-94ab-96185183fa8e-44749210

## Appendix D

JSU IRB Approval Letter


Institutional Review Board for the Protection of Human Subjects in Research
249 Angle Hall
700 Pelham Road North
Jacksonville, AL 36265-1602

December 1, 2022

Kesha Thomas
Jacksonville State
University Jacksonville, AL
36265

Dear Kesha:

Your protocol for the project titled "Initiating a Childhood Obesity Screening Process in an Urban Pediatric Office" protocol number 12012022-01 has been granted exemption by the JSU Institutional Review Board for the Protection of Human Subjects in Research (IRB).

If your research deviates from that listed in the protocol, please notify me immediately. One year from the date of this approval letter, please send me a progress report of your research project.

Best wishes for a successful research project.

Sincerely,

Jennifer Mead
Senior Human Protections Administrator, Institutional Review Board

# Appendix E

Project Timeline

| Patient ID | Sex | Age | Ethnicity | Insurer | 01/31/23 | 02/14/23 | 02/28/23 | 03/14/23 |
|---|---|---|---|---|---|---|---|---|
| Z1592776 | M | 16-year-old | African American | Medicaid | 200 lbs. | No show | No show | No show |
| Z824928 | M | 14-year-old | African American | Medicaid | 191 lbs. | No show | No show | No show |
| Z1205060 | F | 13-year-old | African American | Medicaid | 331 lbs. | No show | No show | No show |
| Z1590616 | M | 16-year-old | African American | Medicaid | 320 lbs. | No show | No show | No show |
| Z945408 | M | 8-year-old | African American | Medicaid | 128 lbs. | No show | No show | No show |
| Z1006636 | M | 10-year-old | African American | Medicaid | 108 lbs. | No show | No show | No show |
| Z806391 | M | 8-year-old | African American | Medicaid | 129 lbs. | No show | No show | No show |
| Z1046286 | M | 13-year-old | African American | Medicaid | 189 lbs. | No show | No show | No show |
| Z797192 | M | 13-year-old | African American | Medicaid | 171 lbs. | No show | No show | No show |
| Z80820 | M | 13-year-old | African American | Medicaid | 291 lbs. | 310 lbs. | No show | No show |
| Z1391213 | F | 13-year-old | African American | Medicaid | 266 lbs. | 263 lbs. | No show | No show |

## Appendix F

Agency Letter of Support

November 17, 2022

Institutional Review Board

Jacksonville State University

700 Pelham Road North

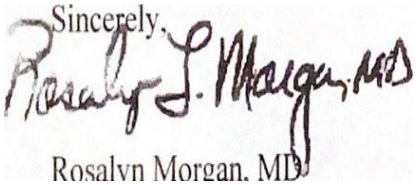
Dear Institutional Review Board,

I hereby agree to Kesha Thomas, from Jacksonville State University to conduct her research at Morgan Pediatrics. I understand the purpose of the study is "Initiating a Childhood Obesity Screening Process in an Urban Pediatric Clinic."

By signing this letter of permission, I agree to the following:

Jacksonville State University researchers have permission to be on Morgan Pediatric premises.

Jacksonville State University researchers have access to the data collected to perform the data analysis both for presentation to Jacksonville State University and/or for publication purposes.




Morgan Pediatrics

2010 Ave F

Ensley, Al 35218

205-777337

205-788-4767