**Childhood Obesity Protocol: The Consequences and the Solutions at the Clinical Level**

I. **POPULATION:**

A small rural clinic on an American Indian Reservation in California. As sole medical provider for this community, it is common to see children for routine childhood milestones including vaccinations, PE prior to kindergarten, and sports physicals. Our population of focus is children ages 6-13 years of age with obesity. By using the CDC and American Academy of Pediatric (AAP) definition we diagnosed obesity in children to consist of the Body Mass Index (BMI) equal or greater than the 95th percentile (CDC, 2013). We used BMI as our measurement to determine both obesity and monitor progress of obese children.

II. **PURPOSE:**

Our purpose is to establish childhood obesity as a rising problem among
children ages 6-13 years, and to incorporate current research into clinical practice for prevention purposes. Obesity amongst children cause health problems that, without intervention will lead to a clinical worsening of symptoms and/or chronic health conditions.

It is the Advanced Practice Nurses (APN) responsibility to aid and monitor the patient in changing health behaviors to, "a positive dynamic state not merely the absence of disease” (Pender, 2010). In advanced nursing practice, health promotion involves increasing a client’s sense of well-being and understanding that clients are multidimensional thus interacting individually with their environments in unique ways. Obesity is an imbalance that needs behavior modification and education to treat and prevent.

Because children spend so much time at school and eat a large portion of their daily caloric intake while in attendance, we propose that school is an ideal setting for establishing research guidelines. Using the evidence assists APN’s in changing the children's health-maintenance behaviors. These types of interventions include teaching elementary students how to adjust and adapt their behavior based on their BMI, instituting programs to dissuade dependence on current unhealthy practices, promoting goal achievement through long-term interventions and achieving optimal digestive health.
These lessons can be taught in the primary care office by an APN at routine visits.

III. **OBJECTIVE:**

Through legitimate studies we have established that at-school programs reduce BMI scores of obese elementary school children within 6 months. As APNs we can use research to incorporate and create clinical guidelines to reduce childhood obesity in our clinic population. Using Body Mass Index (BMI) as our instrument to determine both obesity (equal or greater than 95% percentile) and monitor progress of obese children. Our particular population of American Indians have a higher incidence of obesity compared to the America as a whole. “The prevalence of overweight and obesity among American Indian youth may be 2 to 3 times higher than the national average” (CDC, 2013). By promoting such school programs, the intention is to ensure each child has the tools to live a life free of chronic, obesity-related morbidities across the lifespan. Assisting with changes we can allow “cognitive and behavioral skills enabling children to make changes in their own behavior and to employ new choices effectively” (Rosario, 2012). Through education we can help our patients understand and use the
Food Guide properly, choose appropriate food portions, use food labels to make wise caloric choices, and decrease sedentary activity. APNs can give children information based on the client’s readiness, skills, resources, and need for lifestyle changes and allow them to practice their new knowledge and make changes in their daily lives (Pitt County, 2009). APNs can also help their clients plan their meals, connect their clients to online and community resources and prescribe medication or other therapies as needed.

Hopefully, this knowledge will lead to healthier behavior choices and lives free from the ravages of obesity and its related diseases. By reaching children when they are in elementary school, ages 6-13, we can hopefully change their behaviors before they are too set in their ways. The earlier we can get through to our clients the better as 80% of obese adolescents become obese adults (CDC, 2013).

IV. **SUBSTANTIATIONS:**

As established in the introduction, much of our research proves that child obesity is an epidemic. Becoming overweight or obese in childhood can lead to “development of type 2 diabetes and other serious health problems” (Hollar, 2009). Use of behavioral-modification program
within a school system, home, or clinic are necessary to change unhealthy behaviors and habits through lifestyle alterations regarding diet, exercise, and health-promotion education. Children with a sedentary lifestyle in the home environment can improve their health by encouraging continuity of health interventions while in a school setting (Donnelly, 2009). Becoming a health advocate as an APN can assist on making changes amongst our patient population but may even further affect a small community as a whole by reducing morbidity related to obesity.

V. METHODS AND STANDARDS:

Using the research as the foundation for our evidence based practice within a small rural clinic we can make great changes within our elementary school patient population. As APN's we must first clearly define ways to categorize the students based on their measurements. According to the research, the established measurement to monitor progress is BMI. Capturing a weight, height, and BMI for our patient will help determine our progress with the child. Consideration needs to be taken for what is considered overweight and obese before proceeding (International Obesity Task Force, 2013.) We also need to establish a baseline regarding how much each child eats and
participates in physical activity to determine if the behavioral modifications made any changes in their lives. We will have each child fill out a food and exercise diary. After a medical history and physical, we can then start the process of educating the child on the established plan for change over the next month. To determine if our efforts to reduce BMI to less than the 95th percentile among our childhood patients are successful, we will evaluate the client after 6 months in hopes that the child would show a BMI below the 95th percentile, demonstrated by higher levels of physical activity and smarter eating choices after the education session. If BMI is unchanged and child reports same levels of physical activity and eating habits, more education will be given and the APN, the client, and the client’s family will work on a different plan to help bring down the child's BMI.

VI. **ASSUMPTIONS:**

Childhood obesity has long been an issue in American society. The USDA has provided caloric guidance for school children since 1966 with the passage of the Child Nutrition Act (Gunderson, 2013). The Presidential Council on Fitness, Sports and Nutrition states multiple consequences of obesity:

- Obesity-related medical conditions cost our nation nearly $150 billion every year and account for 16 to 18 percent of our total healthcare costs (1 in every 6 dollars spent).
- Projections estimate that by 2018, obesity will cost the U.S. 21
percent of our total healthcare costs - $344 billion annually.

- Those who are obese have medical costs that are $1,429 more than those of normal weight on average (roughly 42% higher).
- The annual cost of being overweight is $524 for women and $432 for men; annual costs for being obese are even higher: $4,879 for women and $2,646 for men.
- Obesity is also a growing threat to national security – a surprising 27% of young Americans are too overweight to serve in our military. Approximately 15,000 potential recruits fail their physicals every year because they are unfit (fitness.gov, 2013)

The presidential fitness plan was instituted at all school levels to encourage healthy eating and increased physical activity. Through using these recommendations set forth by the US government in our clinic, we can help our clients make wise dietary and physical activity choices to combat obesity.


http://www.cdc.gov/pcd/issues/2009/jan/pdf/07_0262.pdf and

http://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html


