

Overweight and Obesity in Children and Adolescents in Schools - The Role of the School Nurse



National
Association of
School Nurses

Position Statement

SUMMARY

It is the position of the National Association of School Nurses (NASN) that the registered professional school nurse (hereinafter referred to as the school nurse) has the knowledge, expertise, and skills to promote the prevention and reduction of overweight and obesity among children and adolescents in schools. Grounded by standards of practice within the *Framework for 21st Century School Nursing Practice™* (NASN, 2015), school nurses can identify, assess, refer, and follow-up with children and adolescents who are at risk for health problems associated with overweight or obesity. School nurses can provide cost-effective, sustainable school-based overweight and obesity interventions that address the complex physical, social, and health education needs of children and adolescents who are overweight or obese (NASN, 2013; Schroeder, Travers, & Smaldone, 2016). School nurses also lead in the development of local school health policies and district/community policies that support wellness, healthy nutrition, increased physical activity, and healthy lifestyle behaviors for all students (NASN, 2013).

BACKGROUND

Overweight and obesity among children and adolescents have emerged as one of the most serious health concerns in communities across the nation (Gungor, 2014; Segal, Rayburn, & Martin, 2017). The associated physical, psychosocial, and economic consequences of overweight and obesity have a negative impact on children, families, communities, the military, and society at large (NASN, 2013). Overweight and obesity in the United States often begin in childhood and can be largely preventable. Overweight for children is defined as a body mass index (BMI) at or above the 85th percentile and less than the 95th percentile for children of the same age and gender, and obesity is defined as a BMI greater than the 95th percentile for children of the same age and gender (Centers for Disease Control and Prevention [CDC], 2016a). From 2011-2014, the prevalence of obesity for children and adolescents, 2-19 years old, remained stable at 17% (CDC, 2016b; Ogden, Carroll, Fryar, & Flegal, 2015). In the past fifteen years, significant progress has been made towards preventing and stabilizing obesity rates (Segal et al., 2017). Signs of progress can be attributable to communities that have implemented comprehensive obesity prevention strategies to make healthy foods and beverages accessible in their schools and communities and have integrated physical activity into their daily lives (Segal et al., 2017). Despite these positive trends, obesity remains an American epidemic affecting 12.7 million (one in every six) children and adolescents ages 2-19 years old (Segal et al., 2017; CDC, 2016b; Ogden et al., 2015).

Quality nutrition and physical activity are essential for optimal growth, development, and well-being. The global shift in diet intake of energy-dense foods that are high in fat and sugar but low in nutrients has contributed greatly to childhood obesity (World Health Organization [WHO], 2017a). More than 90% of American children have poor diets and less than half get the recommended 60 minutes of daily physical activity (Segal et al., 2017; WHO, 2017a).

Obesity also disproportionately affects low-income families in rural communities as well as certain racial and ethnic groups, including Blacks, Latinos, and Native Americans (Segal et al., 2017). Social inequities are evident in these communities and contribute to the overweight and obesity epidemic. Children have few safe outdoor spaces to play or accessible routes to walk or bike to school. Many of these communities also have small food outlets and fast food restaurants that sell and advertise unhealthy food and beverages. Fresh and healthy foods are not readily available and are unaffordable for most low-income families. Where families live, work, play, and attend school, all have a major impact on the choices they are able to make (Segal et al., 2017).

Overweight and obesity in children and adolescents may also influence their ability to be attentive and remain in class (NASN, 2013). Research has shown that children and adolescents who are obese have lower educational engagement, more behavioral problems, and more school absences (NASN, 2013; Segal et al., 2017). Recent studies have also found that students who are obese are more likely to repeat a grade, have lower grade point averages and lower reading scores (Segal et al., 2017).

The cause of overweight and obesity in children and adolescents is not completely understood but thought to be complex and have multiple contributing factors including (CDC, 2016a; National Institutes of Health [NIH], 2017; WHO, 2017b)

- diet and insufficient physical activity
- heredity/genetics
- family/social factors
- behavioral/cultural factors
- environmental/socioeconomic status
- media marketing

The immediate and long-term effects of overweight and obesity impact the physical, emotional, and social health of children and adolescents and places them at a higher risk for the following health conditions (CDC, 2016a; Hoelscher, Kirk, Ritchie, & Cunningham-Sabo, 2013; NIH, 2017):

- high blood pressure and high cholesterol (cardiovascular disease);
- breathing problems such as asthma and sleep apnea;
- type 2 diabetes, impaired glucose tolerance, insulin resistance;
- fatty liver disease, gallstones, gastro-esophageal reflux;
- psychological problems such as anxiety and depression;
- joint and musculoskeletal disorders;
- poor self-esteem and quality of life;
- social problems such as bullying; and
- some cancers.

RATIONALE

The WHO (2017b) and the CDC (2017) recognize that the prevention of overweight and obesity is the most feasible option for reversing the childhood obesity epidemic. *Healthy People 2020* (USDHHS, 2017) identifies specific goals to achieve and promote maintenance of healthy body weight and daily physical activity. Since most children spend a large portion of their day at school, the school is an ideal setting and one of the most efficient systems to reach children and adolescents to provide health services and strategies to prevent overweight and obesity (CDC, 2014). School nurses are in a position to reach a large number of children and adolescents, and they are able to address the potentially serious health problems that result from overweight and obesity. The American Academy of Pediatrics Council on School Health (2016) recognizes the important role that school nurses have in children and adolescents' continuum of care and states that the daily presence of a school nurse may contribute to the reduction of childhood obesity.

Reducing and preventing overweight and obesity at an early age is critical considering the probability that children and adolescents who are overweight or obese will remain so in adulthood (NASN, 2013). Without intervention, children and adolescents who are overweight or obese could be the first generation to live shorter, less healthy lives than their parents (NASN, 2013; Segal et al., 2017). Research studies have demonstrated that school programs are effective in preventing childhood obesity by encouraging healthier diets and increased physical activity (Segal et al., 2017). The school nurse can create a culture of health that supports balanced nutrition and physical activity for all students within the school setting.

Overweight and obesity are sensitive issues for students and families and must be addressed with compassion, understanding, and caring (NASN, 2013). School nurses can promote and implement the following overweight and obesity prevention school-based strategies (NASN, 2013):

- identifying students who may need further evaluation by conducting BMI assessments with appropriate safeguards (Segal et al., 2017);
- assessing students for possible risk factors associated with overweight and obesity (hypertension, acanthosis nigricans, risk for type 2 diabetes, and family history) (NASN,2013);
- making necessary referrals to healthcare providers for further assessment and treatment;
- developing Individualized Healthcare Plans that address elevated BMIs and recommendations for lifestyle modifications;
- providing individual counseling and motivational interviewing to support weight-related behavior change (Missouri Department of Health and Senior Services, 2015; Pbert et al., 2013);
- promoting individual nutrition and physical activity assessments to help children and adolescents identify healthy behaviors and set healthy goals;
- encouraging follow up for counseling and ongoing psychological support for students;
- promoting healthy messages that encourage the consumption of healthy foods and daily physical activity;
- serving as a role model and encouraging role modeling of healthy lifestyle choices by parents and teachers; and
- educating students, parents, and the school community about evidence-based overweight and obesity prevention strategies, healthy lifestyle behaviors, daily physical activity requirements, and preventable health risks associated with overweight and obesity.

School nurses also provide leadership in initiating and leading the school community to influence policy and strategies that address the prevention of overweight and obesity. School nurses can effectively improve the health of children and their families by promoting the following efforts (Alliance for a Healthier Generation, 2017):

- developing and implementing wellness policies that include healthy nutrition and physical activity;
- promoting safe walk-to-school and bike-to-school programs;
- advocating for
 - shared use of recreational facilities;
 - research to determine the behavioral and biological causes of overweight and obesity;
 - nutritional school breakfasts and lunches;
 - compliance with the United States Department of Agriculture’s Smart Snacks Nutrition Standards;
 - accessible drinking water throughout the school day and during meals;
 - daily physical education; and
 - education and resources for low income families on how to grow their own gardens.

CONCLUSION

Overweight and obesity remain an American epidemic, affecting one in every six children. Overweight and obesity prevention is an investment in our children’s ability to be healthy, safe, engaged and ready to learn. School nurses are in key positions to provide cost-effective, sustainable, overweight and obesity prevention strategies that address the needs of children and adolescents who are overweight or obese (NASN, 2013; Schroeder, Travers, & Smaldone, 2016). The principles of care coordination, community/public health, and leadership--included in the *Framework for 21st Century School Nursing Practice™*-- guide the practice of school nurses in the identification, prevention, and treatment of children and adolescents who are overweight or obese in schools (NASN, 2015). School nurses recognize the positive impact of healthy eating and physical activity on academic success, promote a culture of health and well-being for all students, and have an important role in affecting policy change that will improve the health of our students and communities in which they live.

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