School nurses’ beliefs and interventions about childhood obesity

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School Nurses’ Beliefs and Interventions for Childhood Obesity

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Editor’s Note: Dr. Shattell, of DePaul University, approached SNN to get the word out about this powerful research. I was sure you would want to know more about it. To receive a copy of the study in its entirety, including an extensive References list, please email Dr. Shattell at mshattel@depaul.edu. The idea for the study came from the first author (Ms. Chew) during the time of her pediatric clinical rotation in the master’s entry to nursing practice program at DePaul University. Ms. Chew was also interested in childhood obesity and community health and school nursing, which led the team to study school nurses in their home state of Illinois.
School Nurses’ Beliefs and Interventions for Childhood Obesity

Abstract
This study examined nurses’ beliefs and interventions for childhood obesity and school-based obesity prevention via a survey that was emailed to a convenience sample of school health nurses in Illinois. Participants were registered nurses with school nurse certification currently employed as school nurses. Results indicated that nurses are more likely to provide obesity-related care when they personally support and provide annual body mass index (BMI) and blood pressure screening, use theory or a health and fitness model, and have a master’s degree and healthy personal diet and exercise habits. Study results have implications for school nursing practice, research, and education. School nurses and administrators in cooperation with community stakeholders can use these results to enhance the effectiveness and value of school-based obesity prevention efforts.

School nurses’ obesity prevention efforts are most effective when they are guided by theoretical frameworks and include essential elements of diet and nutrition, physical activity, and healthy lifestyle education, along with family and community involvement (Barlow, 2007; Cowell, 2011; Koplan et al., 2005; Zenzen & Kridli, 2009). School nurses nurture whole persons with a comprehensive, holistic, respectful, and collaborative approach, caring for children and families, empowering them to improve their overall health and wellbeing (Morrison-Sandberg, Kubik, & Johnson, 2011; Zenzen & Kridli, 2009). School-based obesity prevention programs benefit from community involvement that includes parents, teachers, school administrators, and other healthcare providers (Kubik, Story, & Davey, 2007).

School nurses provide a wide variety of care for children and they have important insights about childhood obesity, school-based obesity interventions, and circumstances associated with these efforts. Studies addressing school nurses’ beliefs about childhood obesity prevention efforts are important to identify and deliver system-level strategies (Cowell, 2011). Few recent studies could be found that addressed school nurses’ beliefs and practices. This study, therefore, examined school nurses’ beliefs and interventions about childhood obesity and school-based obesity prevention programs, and factors associated with increased obesity-related care in school nursing practice. Results of this study confirm, contrast, and expand on previous research regarding childhood obesity and school health.
Discussion and Implications
Illinois school health nursing practice includes numerous care interventions, including a wide range of obesity prevention interventions. From daily care responsibilities to annual health screenings, school nurses attend to the needs of individual children and to the greater school community in many different ways. This study revealed several factors positively associated with obesity prevention interventions. Our study results confirmed, contrasted with, and expanded on findings of previous research.

Consistent with findings of Kubik et al., (2007) our study found that school nurses firmly believed that childhood obesity is a serious condition that requires treatment and that school health services should be used for obesity prevention. Participants in both studies also agreed that they feel constrained by a lack of time, resources, and preparation. Our study also confirmed what Kubik et al., (2007) found, in that a greater total number of years of nursing experience is associated with increased child-level obesity prevention interventions. Consistent with the findings of Morrison-Sandberg et al., (2011) our study showed that nearly all school nurses agreed that their approach to childhood obesity prevention required discretion, sensitivity, and cultural awareness. Our study showed that school nurses who used theory or a health and fitness model to guide their practice provided more comprehensive school-based obesity prevention efforts, a finding that is consistent with those of Zenzen and Kridli (2009). Hoxie-Setterstrom and Hoglund (2011), and Maughan and Adams (2014), described characteristics and behaviors of effective school nurses. Results of our study showed that school nurses who demonstrated similar characteristics and behaviors in providing more school-level obesity prevention interventions such as teaching and consulting, writing articles, participating on school and community health councils, being visibly involved in school and community health policy development, also provided more child-level obesity prevention efforts.

Responses to questions about perceived support from stakeholders at first glance appear to be in contrast to what Kubik et al., (2007) found because, in our study, this was not associated with school nurses’ level of obesity prevention efforts, as it was in Kubik et al., (2007). Nurses in our sample were both underfunded and had limited time. We hope to see that future research considers this. With adequate funding and additional time, school nurse efforts to provide obesity prevention education should increase.

Kubik et al., (2007) found the number of years in current position to be positively associated with providing child-level obesity prevention interventions, and years of school nursing to be positively associated with providing school-level obesity prevention interventions. Our study found neither the number of years in current position nor years of school nursing experience to be significantly associated with the three categories of school-based obesity prevention efforts.

Our study expanded on the findings of Kubik et al. (2007) regarding the importance of school nurses’ support for annual BMI and BP screening. Results of our study indicated that not only was school nurses’ support for annual BMI and BP screening significantly associated with increased child-level obesity prevention interventions, but it was also associated with increased school-level obesity prevention interventions, including annual BMI and BP screening. Whereas Kubik et
School Nurses’ Beliefs and Interventions for Childhood Obesity

al. (2007) reported no results related to school nurses’ personal diet and exercise habits, our study revealed a significant positive relationship between school nurses’ personal diet and exercise habits and their level of child and school-level obesity prevention interventions.

The National Association of School Nurses (2014) requires at least a bachelor level education for school nurse certification. Results of our study indicated that master’s prepared nurses provided more child-level obesity care than nurses with a bachelor’s degree. Perhaps the National Association of School Nurses could encourage school nurses to further their education beyond a bachelor’s degree.

Limitations of this study included use of a convenience sample of certified school nurses with specific education requirements, a single distribution channel, and lack of diversity in school nurse demographics. Use of a convenience sample excluded input from school nurses who were educated at the diploma or associate’s degree level and not certified.

Implications for School Nurses
Our findings suggest that school nurses may have an impact on childhood obesity and school health through their own efforts and example by consistently using theory or a health and fitness model to guide their school nursing practice, strongly supporting school-based obesity prevention efforts including annual BMI and BP screening, and modeling healthy personal diet and exercise habits. Beyond the efforts of individual school nurses, implications for school health require involvement of the greater school community. School administrators and community stakeholders could promote school health by supporting school nurses and enhancing school health initiatives. Examples include employing more certified school nurses, including school nurses in decision- and policy-making, promoting higher education for and consistent use of theory or a health and fitness model by school nurses, and instituting annual BMI and BP screening in their schools (although the benefits and difficulties of BMI screening is debated in the literature; see Nihiser et al., [2009]).

Instituting annual BMI and BP screening will require effort, time, and money, but the return on investment has the potential to be great. Considering the incremental lifetime medical cost estimate of $19,000 for an obese child (Finkelstein, Graham, & Malhotra, 2014), the cost to provide annual BMI and BP screening may be a wise investment. Organizations such as Shape Up America! (2014) and the National Pediatric Blood Pressure Awareness Foundation (2014) offer guidance to school nurses and administrators interested in implementing programs to prevent and reduce childhood obesity.

Summary
Findings of our study have several implications for nursing research and education, and public and school health. Opportunities for future nursing research include the various elements of school-based obesity prevention interventions and school nurses’ uncertainty about support from stakeholders. Nurse educators have the opportunity to promote masters level education with a strong foundation in nursing theory and research for school nurses. As providers of population-based public health services, school nurses have an opportunity to contribute to greater achievement of the nutrition and weight status objectives of Healthy People 2020 (U.S. Department of Health and Human Services, 2014).
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REFERENCES


School Nurses’ Beliefs and Interventions for Childhood Obesity


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