Legal and Ethical Considerations of Bariatric Surgery in Children and Adolescents

Allison C. Taylor

The University Of Kansas School of Nursing

About the author:
A native of Topeka, Kansas, Allison will graduate from the University Of Kansas School Of Nursing with Nursing Honors. She is the recipient of the Arthur and Leona Peck Nursing Scholarship Award. She was inducted into Delta Chapter, Sigma Theta Tau International in May 2009 and is also a member of Phi Kappa Phi Honor Society. Allison is also the recipient of a Delta Chapter STTI Honors Research Project Award. Her plans for the future are not fully confirmed, but Allison sees herself as having a career as a Registered Nurse in an acute care setting and eventually pursuing an advanced degree in Nursing.

Legal and Ethical Considerations of Bariatric Surgery in Children and Adolescents

Obesity is the most common disease of childhood and adolescence among developed nations (Paoletti, 2007). Over the past 30 years, the prevalence of overweight children in the United States has nearly tripled. Current estimates are that 17% of American children and adolescents are now either overweight or obese (Paoletti, 2007), with a disproportionately high prevalence in ethnic minorities (Cuttler, Whittaker, & Kodish, 2005).

As the waistlines of today's youth expand, questions arise about what needs to be done to combat this obesity epidemic in the pediatric population. Will the childhood obesity resolve itself over time? Does childhood obesity need a lifestyle intervention, or are more aggressive treatments, such as surgical intervention, appropriate.

Bariatric surgery is an intense obesity treatment that raises several legal and ethical issues for the pediatric population. It is important for nurses to be knowledgeable about these issues because of the huge prevalence of obesity in the general population so that nurses can better understand and educate others about obesity issues. It is important for nurses to implement preventive measures to combat obesity and to address the needs of those children and adolescents who are already obese and help them explore their treatment options and lifestyle changes. This paper will examine the topic of overweight and obesity in the pediatric population and the associated legal and ethical issues of bariatric surgery.

Review of the Literature

Overweight and obese children and adolescents are at risk for numerous health problems, including hypertension, hyperinsulinemia, dyslipidemia, Type 2 diabetes, psychosocial dysfunction, venous stasis disease, fatty liver disease, and other serious co-morbidities (Haynes, 2005). Furthermore, many diseases associated with overweight/obese individuals have serious

complications. For example Type 2 diabetes has related cardiac, renal, and ophthalmic complications for young adults (Inge, Krebs, Garcia, Skelton, Guice, Strauss, et al., 2004).

A number of professional organizations recommend childhood obesity treatment programs include lifestyle modification, family education, and a focus on gradual long-term changes (Cuttler et al., 2005). In the adult population lifestyle-based treatment for obesity is generally unsuccessful, while treatment guidelines for pediatric obesity have focused almost exclusively on lifestyle intervention. The current literature suggests that childhood obesity be addressed through population-based preventive measures because it is much easier to prevent obesity than to reverse it. However, this does not account for children who are already obese and in need of intervention.

Surgery has been established as a more effective treatment than conservative weight management approaches in obese adults. There has also been evidence for the efficacy of surgical intervention in the pediatric population (Cuttler et al., 2005). It could be considered unethical to deny children and adolescents, based on age, those treatments that have been found beneficial for adults. However, treatments for children require specific evaluations of safety and efficacy. While surgery is an extreme measure to deal with childhood obesity, it may be warranted in some cases as the consequences of obesity may severely affect health and quality of life in the child if left untreated.

Several ethical issues emerge when discussing bariatric surgery in the pediatric population. One is the controversy over the best time to surgically intervene in pediatric obesity cases. Optimal timing often depends on the severity of the patient's obesity-related co-morbidities, whether the patient's health is being compromised by severe obesity, and whether the patient has failed more conservative options. The longer an individual is obese, the higher the

risk of co-morbidities. Since many obesity-related diseases take years to develop, the suggestion exists of a need for earlier intervention (Foster, 2007). However, according to Cuttler et al. (2005), childhood obesity becomes the dominant predictive factor for adult obesity after age 10 years, with approximately 80% of children 10 years or older with a basal metabolic index (BMI) above the 95th percentile carrying their obesity into adulthood. Cuttler et al. (2005) suggested that since the link between pediatric and adult obesity is age-dependent and particularly strong after the age of 10 years.

Much of the controversy over the timing of bariatric surgery is due to the potential compromise of growth and development in children who undergo this procedure too young. There is rapid neuroendocrine, skeletal, and psychosocial maturation during adolescence, and according to Inge et al. (2004), it is unknown how these growth processes are affected by restrictive or malabsorptive surgical procedures. The accelerated growth of adolescence requires adequate nutrition, and bariatric surgery performed before the growth spurt could potentially compromise growth. While bariatric surgery is not considered to drastically impair linear growth if at least 95% of adult stature has been attained, it is not yet known whether and to what extent bariatric surgery may adversely affect bone mineral density and increase the risk of brittle bone fractures later in life (Inge et al., 2004). Additionally, while some adolescents may be considered physiologically mature enough to undergo bariatric surgery, psychological readiness is not as easy to assure.

A second legal and ethical issue raised is whether the patient has decisional capacity and is able to participate in autonomous decisions. According to Inge et al. (2004), decisional capacity is not determined strictly by chronologic age. Many agree that children under age 13 years do not have the capacity to make decisions regarding such a complicated serious

intervention as bariatric surgery. Assent for surgery must be obtained from the child/adolescent patient, and informed permission must be obtained from the parents/guardians before surgery. Most experts generally consider the age range of 8-14 years to be appropriate for assent, with younger children incapable of meaningful participation in medical decisions and older individuals capable of providing true informed consent (Cuttler et al., 2005). These ethical considerations regarding developmental capacity to give assent and consent suggest that intensive treatments should focus on older children and adolescents and that all decision-makers (parent, child, and physician) need to reach a consensus before beginning intensive treatment.

Additionally there is concern over insurance coverage that is often unavailable or inadequate for obesity services, even if recommended by professional and governmental organizations (Cuttler et al., 2005). This issue raises questions of distributive justice, since barriers preventing payment may intensify existing sociodemographic disparities in obesity.

Another ethical matter is the need to put young female patients on contraception after bariatric surgery. Parents/guardians may be apprehensive of their child's use of contraception because of the associated perception that it condones sexual activity. Neglecting contraception after the surgery is of greater ethical concern because as Inge et al. (2004) stated, "reliable contraception must be used for at least the first 1 year after the operation because of the increased risk to the fetus posed by the rapid weight loss" (p. 221).

Also of concern is the ethical decision of which surgical procedure is best for the pediatric patient. Gastric bypass is the most common bariatric procedure performed in the United States, but because of its irreversibility, there is concern regarding chronic malabsorption in the pediatric population that has directed surgeons to consider laparoscopic adjustable gastric banding (LAGB) (Zitsman, 2006). However there are few centers that are currently approved for

LABG, and there are ongoing studies to determine the efficacy and applicability of LAGB in adolescents. There is also a paucity of pediatric endosurgical literature that compares open and minimally invasive procedures (Zitsman, 2006).

Conclusion

The childhood obesity epidemic requires a two-pronged approach of preventive measures combined with interventions for those children already obese. Surgical intervention for children and adolescents raises many legal and ethical issues that need to be recognized and addressed, including but not limited to optimal timing of surgery, determining decisional capacity, and which bariatric surgical procedure is best for pediatric patients.

Nurses need to be aware of these legal and ethical issues related to pediatric obesity interventions to be able to help patients and families fully explore treatment options. Nurses also have an important role in implementing preventive measures by promoting wellness through education and by providing early intervention for at-risk children in a number of settings including clinics, pediatricians' offices, hospitals, schools, and out in the community. Nurses need to recognize barriers families may encounter that could make healthy eating more of a challenge, such as a lack of knowledge about healthy food options or limited resources.

The long-term effects of bariatric surgery in the pediatric population have not been well characterized (Inge et al., 2004). Further investigation of this topic is needed, including more longitudinal studies on bariatric surgery in pediatric patients and close monitoring and follow-ups throughout these patients' lives to ensure optimal health post-operatively. It is important that nurses become more aware of the legal and ethical implications posed by bariatric surgery in the pediatric population.

References

Cuttler, L, Whittaker, J.L, & Kodish, E.D. (2005). The overweight adolescent: Clinical and ethical issues in intensive treatments for pediatric obesity. *The Journal of Pediatrics, 146*(4), 559-564.

Foster, R. K. (2007). Major obesity surgery for children—what's it all about? *Nutrition Bulletin, 32*(2), 109-112.

Haynes, B. (2005). Creation of a bariatric surgery program for adolescents at a major teaching hospital. *Pediatric Nursing, 31*(1), 21-25.

Inge, T.H, Krebs, N.F, Garcia, V.F, Skelton, J.A, Guice, K.S, Strauss, R.S, et al. (2004). Bariatric surgery for severely overweight adolescents: Conclusions and recommendations. *Pediatrics, 114*(1), 217-223.

Paoletti, J. (2007). Tipping the scales: What nurses need to know about the childhood obesity epidemic. *RN, 70*(11), 35-41.

Zitsman, J.L. (2006). Pediatric minimal-access surgery: Update 2006. *Pediatrics, 118*(1), 304-308.