Virtual Mentor. August 2003, Volume 5, Number 8. doi: 10.1001/virtualmentor.2003.5.8.ccas3-0308

Clinical Cases

Obesity as Medical Neglect: Should Doctors Report?

The legal definitions of child neglect and child abuse are not as clear cut when faced with the issue of whether parents should be held responsible for failing to follow weight-loss plans for a morbidly obese child.

Commentary by David Collier, MD, PhD, Ronald M. Perkin, MD, MA, and Joseph Zanga

MD is a 15-year-old Hispanic boy with a medical history of chronic renal failure (CRF) and morbid obesity. As an infant, MD was taken from a migrant worker camp into the custody of the Department of Social Services because his biological mother failed to provide adequate nutrition and care. He was later adopted by a family that attended more closely to his needs and care. At age 2 he was diagnosed with renal failure secondary to focal segmental glomerular sclerosis (FSGS) and required peritoneal dialysis until age 3, when he received a cadaveric kidney transplant.

Over time MD's linear growth decelerated, crossing from about the 25th percentile at age 6 to less than the 5th percentile by age 8. At 11, he had an acute rejection event, and he has remained in chronic renal failure. MD has experienced other problems related to his renal failure such as hypertension and renal osteodystrophy.

MD suffers from excessive weight gain; at his current height of 134 cm (5th percentile) and weight of 130 kg (>95th percentile) his body mass index is 72 kg/m2, which greatly exceeds the 95th percentile for his age and sex. He suffers from many of the morbidities associated with obesity, including obstructive sleep apnea, and requires continuous positive airway pressure (CPAP) while sleeping. He has dyspnea on exertion and severe exercise intolerance resulting in both his inability and unwillingness even to take walks around the neighborhood. MD does not attend high school because he cannot tolerate moving from class to class. The hypertension associated with CRF is exacerbated by his obesity, and he has developed left ventricular hypertrophy. His excessive weight stresses his musculoskeletal system, and in concert with renal osteodystrophy, has resulted in genu valgum (deformity of the legs that produces "knock knees") requiring surgical repair. He has poor self-esteem and periods of depression and has developed ADD secondary to sleep apnea (no longer requiring medication because of CPAP treatment). MD's elevated insulin levels (fasting c-peptide level of 7.4, normal range 0.4-2.2) suggest that he has developed insulin resistance that will likely progress to type II diabetes. MD needs treatment for the chronic renal failure but his obesity makes him a very poor candidate for either dialysis or a repeat transplant. His obesity is, therefore, exacerbating the morbidity and mortality risks associated with his underlying renal disease, may prevent him from getting the definitive life-preserving treatment he needs (a kidney transplant), and is causing morbidity and mortality risks independent of his renal disease.

MD and his family have been told about the risks associated with his obesity, have received extensive dietary counseling, and have worked with mental health services. Social workers, occupational therapists, and exercise counselors have all visited the family's home. On 2 different occasions, when MD was 12 and again at 13, he was admitted to inpatient rehabilitation facilities to increase his exercise tolerance and weight loss. On both occasions MD lost weight, but his family withdrew him because they felt that he was being "starved" and treated cruelly. He was also enrolled in a hospital-based outpatient wellness/fitness program, from which his parents also withdrew him. MD rarely brings his food diary to appointments with his dietician, and his parents also refused a proffered liquid diet because they felt it would be cruel to him. The patient and his family acknowledge that he is excessively overweight, but blame his medications, including steroids (currently 10 mg prednisone per day), and wish "there was a magic bullet" to solve this problem. With respect to all other aspects of his health care, MD and his family are extremely reliable, and he is apparently compliant with his medications.

Commentary

by David Collier, MD, PhD, Ronald Perkin, MD, MA, Joseph Zanga, MD

In the United States, physicians and other health professionals who suspect that a child is being abused or neglected have a legal, and ethical, responsibility to report that suspicion to child protective services. By definition a neglected child is one "who does not receive proper care, supervision, or discipline from the juvenile's parent, guardian, custodian, or caretaker; or who has been abandoned; or who is not provided necessary medical care; or who lives in an environment injurious to the juvenile's welfare; or who has been placed for care or adoption in violation of the law" [1]. In light of that definition would a report filed with respect to MD be appropriate?

According to CDC guidelines, children between the ages of 2 and 18 years with a body mass index (BMI = wt [kg]/ht2 [m]) that exceeds the 95th percentile for age and sex norms are overweight (obese). Although not a measure of adiposity, BMI is a simple screening tool for identifying children at risk, is the same measure used for adults, and correlates well with the complications of obesity.

Both adults and children suffer from these complications [2] to greater or lesser degrees. For children, orthopedic complications include tibia vara and slipped capital femoral epiphysis. Obesity is also the most important preventable risk factor for the development of osteoarthritis. Metabolic and endocrine disorders, including insulin resistance, dyslipidemia, and hypertension (syndrome X/metabolic syndrome), and polycystic ovary disease are associated with obesity. Previously rare in children, the prevalence of non-insulin-dependent diabetes mellitus (NIDDM) has increased approximately 10-fold in concert with the increased prevalence of childhood obesity. Children as young as 4 are known to be affected [3]. Obesity can affect neuro-cognitive and behavioral function by causing pseudo-tumor cerebri or excessive daytime somnolence (or hyperactivity) which can result in impaired school performance. Cardiomyopathies such as cor pulmonale and left ventricular hypertrophy may develop in response to obesity-related sleep apnea, systemic hypertension, and hypopnea/hyperventilation, which may be refractory to treatment with simple nasal CPAP and require BiPAP and high airway pressures, and can result in congestive heart failure and death. At the very least, the problems of poor self-esteem, stigmatization, depression, and severe exercise intolerance can lead to social withdrawal, isolation, and difficulties with activities of daily living.

Many of these problems are illustrated by the child in question. MD's long and short-term health and activities of daily living are clearly compromised by his obesity. Weight loss is considered medically necessary for his well-being, but the process was undermined by his parents who failed to effect the recommended changes. They therefore are, by definition, neglectful.

Clearly there was a *legal* duty to report this child as neglected, but are there rights, duties, values and ethical considerations that might not support such action? While the most important consideration is to determine what is in the best medical interest of the child, health professionals must also consider the confidentiality rights of the patient, and must respect both the patient's and the family's autonomy. The therapeutic alliance with them must also be maintained. Therefore, evaluating the utility of reporting, presuming benefit to the child versus the harm it may cause, gives some health professionals pause.

The following were issues discussed and weighed in MD's case:

Diet and exercise, at least in the short term, had proven successful in helping this patient maintain or lose weight. By undermining his diet and exercise program, his parents neglected his health.

Many other post-transplant patients on the same regimen do not become morbidly obese, therefore MD's BMI cannot be ascribed strictly to his medications (as his parents wish to think).

Weight reduction programs that work for modestly obese patients (140-150 percent of ideal body weight) are ineffective for very obese patients (190 percent of ideal body weight or greater). MD is > than 300 percent of his ideal body weight [4].

MD is now an adolescent with increasing levels of autonomy and self determination. At this juncture therefore, his parents cannot be held entirely responsible for his behavioral choices, even those that are self destructive.

The decision to report is not as straightforward as it seems.

References

- 1. North Carolina General Assembly. *Subchapter I: abuse, neglect, dependency*. In: NCGA General Statutes, Chapter 7B;101. Accessed July 29, 2003.
- 2. Barlow SE, Dietz WH. Obesity evaluation and treatment: expert committee recommendations. *Pediatrics*. 1998;102:E29.
 - <u>View Article</u> <u>PubMed</u> <u>Google Scholar</u>
- 3. Fagot-Campagna A, Pettitt DJ, Engelgan MM, et al. Type 2 diabetes among North American children and adolescents: an epidemiologic review and a public health perspective. *J. Pediatr.* 2000;136:664-672.

 <u>View Article PubMed Google Scholar</u>
- 4. Levine MD, Ringham RM, Kalarchian MA, Wisniewski L, Marcus MD. Is family-based behavioral weight control appropriate for severe pediatric obesity? *Int J Eat Disord*. 2001;30:318-328.

 <u>View Article PubMed Google Scholar</u>

David Collier, MD, PhD, is a professor and pediatrician in the Department of Pediatrics at the Brody School of Medicine at East Carolina University.

Ronald M. Perkin, MD, MA, is a professor in and chairman of the Department of Pediatrics at the Brody School of Medicine at East Carolina University as well as the medical director of the University Health Systems of Eastern Carolina Children's Hospital.

Joseph R. Zanga, MD, is a Jefferson-Pilot Distinguished Professor in Primary Care, an assistant dean for generalist programs, and a professor of pediatrics at the Brody School of Medicine at East Carolina University.

The people and events in this case are fictional. Resemblance to real events or to names of people, living or dead, is entirely coincidental. The viewpoints expressed on this site are those of the authors and do not necessarily reflect the views and policies of the AMA.

© 2003 American Medical Association. All Rights Reserved.