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Obesity a Factor in High-Risk Sexual Behavior in Adolescent Girls

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May 28, 2010 (San Francisco, California) — Overweight and obese adolescent girls are more likely to engage in risky sexual behavior than their normal-weight peers, according to researchers here at the American Congress of Obstetricians and Gynecologists 58th Annual Clinical Meeting.

When researchers analyzed data from the Centers for Disease Control and Prevention (CDC) Youth Risk Behavior Study, they found that obese and overweight adolescent girls were more likely to have sex before the age of 13 years and to have more than 3 lifetime partners, and were less likely to use condoms or contraception.

Previous studies have shown that obesity is related to poor body image, and poor self-esteem is associated with high-risk sexual behavior, leading Margaret Villers, MD, and colleagues from the Medical University of South Carolina in Charleston, to hypothesize that overweight females might be more likely to participate in risky sexual behavior. "Due to the rising rate of teen obesity in the United States, I think it's important to understand more about this rising demographic," Dr. Villers said.

The researchers used data from the CDC's Youth Risk Behavior Survey from 2003 to 2007 to analyze trends in 21,773 normal-weight, overweight, and obese adolescent girls. The Youth Risk Behavior Study is administered every 2 years to students in grades 9 to 12, and provides a nationally representative sample from the United States, Dr. Villers noted. Body mass index is calculated using self-reported weight and height, and CDC criteria are used for definitions of overweight and obese by age and sex.

The researchers evaluated 6 different risky sexual behaviors, including whether or not the teens had sexual intercourse, the age at which they first had sexual intercourse, and the number of sexual partners. They also assessed behaviors such as use of alcohol or drugs during the teens' last sexual encounter, and if they had used a condom or any form of contraception during their last sexual intercourse.

When the researchers analyzed data from different racial and ethnic groups, they found that black and Hispanic females were the most likely to be overweight or obese ($P < .001$). However, race did not seem to play a part in risky sexual behavior among overweight and obese females, and neither did age or grade in school.

Their findings revealed that being overweight or obese did not affect the teens' history of sexual intercourse or whether or not they used alcohol or drugs when they last had sexual intercourse.

Sexual debut before 13 years was more likely among girls who were obese (odds ratio [OR], 2.6) and overweight (OR, 1.6) than among those who were normal weight. Overweight and obese females were 30% more likely to report more than 3 lifetime partners (OR, 1.3) and 20% less likely to use condoms than their normal-weight peers (OR for obese girls, 0.81; OR for overweight girls, 0.82). Overweight girls were 30% less likely and obese girls were 40% less likely to report any form of contraception at last intercourse than normal-weight adolescent girls (OR, 0.67 and 0.61, respectively.)

Dr. Villers noted that there were several limitations to the study, including the fact that adolescents might not know their weight or might under- or overestimate it. However, other studies have found that adolescents are reliable in their weight estimation. She also pointed out that adolescents might overemphasize their sexual experiences, although data from other surveys of sexual behavior in adolescents show responses that are equivalent to those in the Youth Risk Behavior Survey.

One important confounder that the researchers did not analyze was socioeconomic status, Dr. Villers said.

"While obesity and being overweight were more predictive of high-risk behavior in our study than race was, high-risk behaviors did not increase with increasing body weight," she said. The adolescent girls had approximately similar odds of high-risk sexual behavior whether they were overweight or obese.

The implications of the study are that overweight and obese adolescent females might be participating in high-risk sexual behavior that could put them at risk for sexually transmitted infections and unplanned pregnancies, Dr. Villers said. "We need a greater understanding of why these adolescents are pursuing high-risk sexual behaviors to improve identification and interventions for high-risk teens," she said.

The relation between being overweight or obese and high-risk behavior has rarely been studied in adolescents, said Sarah Fox, MD, assistant professor in obstetrics and gynecology at Women's and Infants Hospital of Rhode Island and Brown University in Providence. Studies on high-risk sexual behavior that considered weight have been in adults.

"The quality of the data in this study is high because they used the Youth Risk Behavior Survey; that's a really great information source. However, it might have been more helpful to clinicians to know these teens' absolute risk, as well as their odds for sexually risky behaviors," Dr. Fox said.

She noted that overweight and obese adolescents have not traditionally been recognized as a group with a high likelihood of risky sexual behavior. "Everyone needs to know about safe sex, but being overweight or obese during the teenage years may be a sexual risk behavior that may be important to keep in mind for sex education programs and public health," she said.

Dr. Fox agreed with Dr. Villers that future research needs to focus on the reasons why overweight and obese adolescent girls are more likely to engage in sexually risky behaviors than those who are normal weight. "Then we might be able to choose interventions that can help these young people make more healthy choices," she said.

Dr. Villers and Dr. Fox have disclosed no relevant financial relationships.

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