Prior miscarriage, weight affect exercise, well-being in pregnant women
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Women with a history of miscarriage and women who are overweight or obese prior to pregnancy tend to have poorer psychological health and lower motivation to exercise during their next pregnancy compared to women without a history of miscarriage and those who are at a healthy weight before pregnancy.

Additionally, women who were less likely to exercise had higher rates of anxiety and depression, according to researchers at Penn State who surveyed 113 women, 41 of which had a prior miscarriage, and 72 who were overweight or obese.

"What this tells us is that women who have experienced a prior miscarriage may not know about the benefits of exercise in their next pregnancy for managing their psychological health," said lead author Danielle Downs, professor of kinesiology and obstetrics and gynecology. "From a public health perspective, women with a former miscarriage should look at exercise as a tool in their next pregnancy as a way to manage anxiety and depressive symptoms."

Similarly, overweight and obese women may be at higher risk for experiencing anxiety and depressive symptoms during early pregnancy compared to healthy weight women, and may also benefit from exercise, Downs said.

Women reported their depressive or anxiety symptoms and exercise motivation and behavior in the first, second and third trimesters via mailed surveys.

Women with a history of miscarriage had higher depressive or anxiety symptoms and lower positive attitude and perceived control for exercise in early-mid pregnancy compared to women without a history of miscarriage.

Miscarriage is the most common complication of early pregnancy and occurs in approximately 24 percent of pregnancies, according to the American College of Obstetricians and Gynecologists.

Although common, it is not a topic that is widely discussed, as it can be painful and traumatic for families, and often associated with shame and fear. Some women may not even know they experienced a miscarriage, as oftentimes miscarriage can be mistaken for a late menstrual period, Downs said.

These same reasons may be why miscarriage is often underreported, Downs said.

"Miscarriage followed by a new pregnancy, and the grief as well as excitement that happens during this time, makes for a complicated psychological period," said Downs, who is also professor in charge of the undergraduate program in the Department of Kinesiology. "Exercise is something that health care providers can recommend for these women as a tool to possibly manage the symptoms of anxiety, depression and fear of losing another baby."

Overweight and obese women had higher first- and
second-trimester pregnancy depressive or anxiety symptoms; engaged in less pre-pregnancy exercise; and had lower levels of exercise intention, attitude and perceived behavior control throughout pregnancy than healthy-weight women.

"Given that pre-pregnancy activity level is a strong predictor of perinatal exercise and motivational determinants, and that overweight and obese women are at higher risk for inactivity, high gestational weight gain, and anxiety and depressive symptoms throughout pregnancy, efforts are needed to promote exercise and stress management in these women – especially overweight and obese women with a history of miscarriage," Downs said.

The Exercise Psychology Laboratory at Penn State is currently delivering an individually tailored intervention for overweight and obese women to promote exercise and healthy eating in an effort to manage weight gain.

Downs and researchers aim to identify effective strategies unique to this population that can be translated to clinical application and used by health care providers to help these women overcome barriers and have a more healthy pregnancy.

Downs cautioned that "one size doesn't fit all pregnant women. Women should talk to their doctors regarding any exercise regimen."

Downs suggested that interventions and health care provider communications aimed at promoting perinatal exercise behavior and psychological health should take into account pre-pregnancy weight status and pregnancy history to identify strategies to help women, particularly overweight and obese women with a history of miscarriage, to overcome exercise barriers.
