Ante-partum bed rest moms get active in new study
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After weeks of bed rest during pregnancy, new mothers need to rebuild muscles and strengthen their stamina. Now a group of women will test new interventions in aiding that recovery during a pilot study at Case Western Reserve University's Frances Payne Bolton School of Nursing.

"Putting people in bed is not a benign kind of thing," says Judith Maloni, a professor of nursing at the Bolton School. She has been studying the effects of bed rest for nearly two decades and aerospace research studies conducted by NASA have shown that bed rest changes every major organ system in the body and its function.

During her study, "Rebound: A Self-Management Intervention for Recovery from Ante-partum Bed Rest," Maloni will test a set of exercises and educational programs that help women learn to manage their recovery after both bed rest and birth.

The study is supported by the Bolton School's Center for Excellence for Self-Management Advancement through Research and Translation (SMART). It is among four projects the center is piloting to learn more about teaching individuals how to manage their own health care.

Nearly 1 million pregnant women annually are sent to bed near the end of their pregnancies to prevent preterm labor, premature rupture of membranes, placenta previa, incompetent cervix or placental abruption.

According to Maloni, many women leave the hospital and cannot understand why they suffer back problems and muscle aches and are fatigued while other new mothers seem to bounce back after giving birth.

Maloni said she would like bed-rest moms to understand that what they are experiencing is normal for women who have been on bed rest. They may need physical therapy and other interventions to regain the strength to do normal activities like taking care of other children, doing household tasks or participating in activities in the community or with friends, said Maloni.

Following delivery, these women must overcome the long-term effects of bed rest. Other research has found these effects can be bone loss; decreases in body mass, fluid loss and plasma; depression; and muscle weakness.

Maloni will recruit 80 women who have had good physical and mental health and had at least 21 days or more of bed rest prior to their baby's birth.

These women will be evaluated two days into the study with follow-ups after two months and three months. At the end of testing, Maloni will offer the new intervention to the women in the control group.

The new intervention is a set of cardiovascular and strength exercises developed for the elderly, who, like new mothers, may be in a state of physical deterioration.

Women in this group will be tested for their physical capabilities during a six-minute walk, 30 seconds of sit-stands and two minutes of stepping in place.

In a prior study on the ability of bed-rest mothers to function after childbirth, Maloni reported that women who were given the exercises from the Rikkli Jones Senior Fitness Test walked an average of 217 feet in 4.8 minutes. This was the same level of performance as women in the 70-75 age group.

Maloni has studied the postpartum conditions of bed-rest moms until six weeks and found that many of them are still fatigued. By following the women to the third month, she hopes to discover if longer intervention is need to help women regain lost strength and stamina.