

Focus on Research at Case Western Reserve University

Dr. Lewin's research has focused on the relationship between maternal depression, and more broadly, mothers with serious mental illness and children in the child welfare system. Specifically, her research has sought to answer the following questions:

- What factors in mothers with serious mental illness affect child safety?
- What factors in children of mothers with serious mental illness affect their safety?
- What factors in the social context of the mother affect child safety?

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Dr. Maloni's research interests include pregnancy, high risk pregnancy and bed rest, and perinatal depression. Much of her work has focused on the connection between these conditions. A recent study⁶ examined depressive symptoms during high risk pregnancy and the side effects, including depression, of bed rest among women with multiple gestation. This study was driven by the fact that the birth rate for higher order multiples has dramatically increased in recent decades. Multiple gestation pregnancies are considered to be at high obstetric risk, and antepartum bed rest is often prescribed to offset complications despite the lack of evidence for its effectiveness in preventing complications.

Study Design

To better understand the side effects of antepartum bed rest treatment for women with twin or triplet gestation, Dr. Maloni and colleagues conducted a longitudinal repeated-measures study. The sample included a subset of women (N=31) who participated in a larger study (including those with singleton gestation) of the effects of antepartum bed rest. Data were collected during antepartum hospitalization through 6 weeks postpartum.

Maternal weight gain and infant birth weight were recorded. Antepartum stressors were measured by the Antepartum Stressors Hospital Inventory, and depressive symptoms were measured by the Center for Epidemiologic Studies Depression Scale (CES-D). Antepartum and post-partum side effects of bed rest were also assessed by the Antepartum and Postpartum Symptom Checklists.

Findings

The weekly rate of maternal weight gain during antepartum hospitalization and treatment with bed rest was significantly less than recent recommendations for multiple gestation weight gain. In fact, by the end of hospitalization, 43% of women with twins and 57% of those with triplets either lost weight or did not gain during hospitalization. However, infant birth weights were appropriate for gestational age, and there were fewer than expected small-for-gestational-age infants.

Concerns regarding family status and separation from family were the major antepartum stressors. CES-D scores for depressive symptoms were very high on antepartum hospital admission, with scores at or above the cutoff for risk of depression for more than 50% of the sample. The CES-D scores were similar to but slightly higher than Dr. Maloni's previous studies whose samples consisted primarily of women with singleton gestation treated with antepartum hospitalization and bed rest. Postpartum symptoms were initially high but declined significantly by 6 weeks. However, scores for 28% of the sample remained above the CES-D cutoff, indicating risk of depression.

These findings suggest that antepartum maternal weight loss, stress, physiologic and psychosocial symptoms, and depressive symptoms are important factors to consider among women with multiple gestation who are either hospitalized and treated with bed rest or are recovering during the postpartum period. Monitoring of depressive symptoms and appropriate interventions are needed to help women of multiple gestation cope with the difficult process of childbearing and child rearing and to prevent clinical depression.

