

# Mental Health Assessments for Fetal Interventions

**To the Editor:** One out of 33 babies is born with a birth defect according to the Centers for Disease Control and Prevention.<sup>1</sup> Intrauterine fetal interventions are becoming common as evidence shows that the correction of a fetal anomaly in utero can result in normal fetus growth, healthier babies at delivery, and improved survival rates.<sup>2</sup> As of 2020, there were 45 fetal centers across North America, and only some offer interventions.<sup>3</sup> Commonly treated conditions are spina bifida (1 in 1,000 pregnancies), twin-to-twin transfusion syndrome (TTTS: 15% of all identical twins), and congenital diaphragmatic hernia (CDH: 1 in 5,000 pregnancies). Common fetal interventions include open surgery for tumors, spina bifida repairs, cardiac procedures, shunt placements, intrauterine transfusions, laser photocoagulation, and, less commonly, fetal endoscopic tracheal occlusions (FETO) for CDH. Untreated TTTS may result in demise of both twins in up to 90% of cases. One landmark study showed improved motor function and reduced rates of ventriculoperitoneal shunting with spina bifida repair.<sup>4,5</sup> Fetal care centers are incorporating presurgical mental health evaluations due to medical complexities, risks, economic burden, travel logistics, and emotional stress during the process.<sup>6</sup> There is no clear protocol, so we hope to offer guidance and raise awareness about the intersection of mental health and fetal interventions and potentially offer support to all fetal intervention patients.

A psychiatric fetal evaluation should focus on identification of psychiatric and psychosocial risk factors for poor surgical and mental health outcomes. Secondarily, it can aid surgeons in decisions regarding surgical clearance. Evaluations should be tailored to the complexity of the intervention and aftercare. For example, laser photocoagulation for

TTTS occurs once, and there is little special aftercare. Intrauterine transfusions for fetal anemia are done multiple times yet are more accessible. In contrast, FETO involves inflating a balloon in the fetal trachea and deflating it up to 8 weeks later, conferring a higher degree of complexity and stress.<sup>7</sup> Some interventions are performed under conscious sedation, meaning the mother might be aware of operative adverse events to her and/or baby such as fetal cardiac compressions, raising the risk for trauma disorders.<sup>8,9</sup> Fetal centers have rigorous review committees to ensure maternal ethical principles are respected, as fetal interventions typically offer benefits only to the fetus, while conferring risks to mother.

Based on a literature review and our clinical experiences as reproductive psychiatrists and fetal surgeons, we attempted to categorize risk factors for poor mental health and postsurgical outcomes.<sup>10–14</sup> High risk may include severe, active psychiatric symptoms or substance use disorders, unwillingness to receive treatment, and poor compliance with healthcare. Moderate risk may include fully or partially controlled psychiatric or substance use disorders, past trauma, unplanned pregnancies, previous fetal losses, and psychosocial disparities. Possible low risks are cognitive impairments and low health literacy. The purpose of these assessments is to identify risk factors and suggest solutions pre- and postintervention, rather than as a means to deny a patient an intervention. Although these evaluations are often limited to 1 visit, psychiatrists can make an impact through psychoeducation about perinatal mental health conditions, risk factors, and therapy or medication recommendations.<sup>15,16</sup>

Interventions lead to improved infant motor and cognitive development, emotion regulation, maternal-infant bonding, reduced risk of psychiatric symptoms in mother and child, and higher adherence to postoperative recommendations.<sup>5,12</sup>

The advancement of surgical techniques fosters new innovations within the field of fetal interventions, but with this growth psychiatrists should maintain an understanding about interventions and implications on overall outcomes. It would be advisable to consolidate information about psychiatric risk assessments from multiple fetal centers, follow patient outcomes over time, and create a standardized, evidence-based tool.

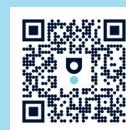
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