The Mental Health Implications of Obstetric Brachial Plexus Injuries (OBPI) on Parents

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INTRODUCTION

• The number risk factor associated with a brachial plexus injury is a shoulder dystocia delivery.
• A shoulder dystocia delivery and subsequent injury to the infant can be an emotionally traumatic experience for everyone involved, especially the parents.
• The authors hypothesize there is an increased rate of depression and post-traumatic stress disorder (PTSD) in parents of a newborn with an obstetric brachial plexus injury (OBPI).

METHODS

• Three groups of parents were prospectively given a 10-minute self-reported survey:
  • 1) Newborns with OBPI
  • 2) Newborns in regular nursery without OBPI
  • 3) Newborns in neonatal ICU (NICU)
• The survey consisted of demographic questions, the PHQ-9 and PCL-S screening tools, and parents’ exposure to community violence, family support, and use of drugs or alcohol.
• The PCL-S is a 17-item PTSD survey that rates symptoms on a Likert scale.
• The PHQ-9 is a 10-item depression survey that asks respondents to rate their mood symptoms on a Likert scale.

RESULTS

• 57 mothers were prospectively enrolled:
  • 24 mothers: OBPI
  • 19 mothers: newborn nursery
  • 14 mothers: NICU
• 57 mothers took the PCL-S portion of the survey:
  • 17 screened in for PTSD (43% for NICU, 0% for newborn nursery, 42% for OBPI).

RESULTS (CONT.)

• 46 mothers took the PHQ-9 portion of the survey:
  • 4 screened in for depression (15% for NICU, 5% for newborn nursery, 14% for OBPI).
  • One mother from the NICU group reported exposure to community or family violence.
  • Community violence had no effect on depression and PTSD rates.

CONCLUSIONS

• OBPI can be very difficult to cope with for parents and family members. 43% of mothers of newborns with an OBPI or children in the NICU screen in for PTSD, which is well above the national average of 3.5% for PTSD associated with pregnancy.
• PTSD is treatable and possibly preventable with appropriate psychosocial care following newborn delivery.
• Untreated PTSD in parents with a child with an OBPI affects the entire family.
• OBPI clinics should be staffed similarly to the NICU with clinical social workers to appropriately screen and treat parents with PTSD symptoms.

Figure 1. Rates of PTSD and Depression in Mothers

<table>
<thead>
<tr>
<th>Percentage of Affected Mothers</th>
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<tbody>
<tr>
<td></td>
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<tr>
<td>Child with OBPI</td>
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<tr>
<td>Child in NICU</td>
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<tr>
<td>Healthy Child in Newborn Nursery</td>
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<tr>
<td>PTSD</td>
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<tr>
<td>Depression</td>
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0% 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%