Age-Based Patterns of Parent-Reported Medical and Behavioral Problems in Children and Adolescents with Intellectual Disability and/or Abnormal Verbal Ability

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Background
Medical and behavioral problems are common in autism spectrum disorder (ASD); however, prevalence may vary by child's age and cognitive and verbal functioning.

Methods
In the Interactive Autism Network (IAN)—a large, validated (Lee et al., 2010; Marvin et al., 2014) and verified (Dandies et al., 2012), internet-mediated parent-report research registry—completed the Birth and Diagnosis Questionnaire (BDQ) on their children with ASD. Child had a professional diagnosis of ASD and a confirmatory score on the Social Communication Questionnaire ≥12. The BDQ collects baseline data relating to each child's birth, ASD diagnosis, and in the BDQ asks the degree to which the child has experienced 15 common medical & behavioral conditions associated with ASD during the past 30 days (“None”, “Mild”, “Moderate”, or “Severe”). See Table 1 for list of conditions.

Results (Continued)
Areas of difficulty with the highest prevalence for both age-groups:
- knitting abnormalities
- feeding
- hyperactivity and impulsivity
- anxiety
- sensitivity to sounds

Young children experience more difficulties with:
- inconstancy
- depression
- controlling emotions
- self-injurious behavior
- hyperactivity and impulsivity
- movement/coordination
- feeding
- sleep problems

Adolescents experienced a higher rate of depression.

No age-related difference for: anxiety
- sleep problems
- sensitivity to sounds
- sensitivity to touch

Intelligence Disability and/or abnormal verbal development were associated with 13 of the 15 factors.

Gender in combination with cognitive and verbal functioning was associated with:
- depression
- anxiety
- self-injurious behavior

Conclusions
Parents of young children report more challenges than reported for adolescents in behavior, coordination, GI concerns, and safety, while adolescents had fewer problems with depression.

Professionals should provide age-appropriate anticipatory guidance and health and behavior surveillance for early identification and treatment of these conditions.

Table 1: Reponses to Question

<table>
<thead>
<tr>
<th>Item</th>
<th>Young Children</th>
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<th>Young Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability or aggression</td>
<td>88.4%</td>
<td>85.3%</td>
<td>89.5%</td>
<td>84.1%</td>
<td>87.6%</td>
<td>86.4%</td>
<td>87.8%</td>
<td>84.5%</td>
</tr>
<tr>
<td>Difficulty controlling emotions</td>
<td>53.5%</td>
<td>56.4%</td>
<td>51.4%</td>
<td>55.2%</td>
<td>52.1%</td>
<td>50.8%</td>
<td>53.0%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Hyperactivity and impulsivity</td>
<td>78.7%</td>
<td>76.9%</td>
<td>76.1%</td>
<td>75.3%</td>
<td>76.9%</td>
<td>76.0%</td>
<td>75.1%</td>
<td>75.9%</td>
</tr>
<tr>
<td>Anxiousness</td>
<td>64.6%</td>
<td>62.9%</td>
<td>63.1%</td>
<td>59.6%</td>
<td>60.4%</td>
<td>60.0%</td>
<td>60.7%</td>
<td>59.6%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>66.0%</td>
<td>65.6%</td>
<td>63.8%</td>
<td>64.5%</td>
<td>64.8%</td>
<td>65.0%</td>
<td>65.5%</td>
<td>64.8%</td>
</tr>
<tr>
<td>Sensitivity to sounds</td>
<td>86.7%</td>
<td>85.4%</td>
<td>88.1%</td>
<td>86.3%</td>
<td>86.5%</td>
<td>86.9%</td>
<td>87.2%</td>
<td>86.6%</td>
</tr>
<tr>
<td>Sleep problems</td>
<td>65.2%</td>
<td>65.5%</td>
<td>61.9%</td>
<td>62.3%</td>
<td>61.7%</td>
<td>61.9%</td>
<td>61.6%</td>
<td>61.8%</td>
</tr>
</tbody>
</table>

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