Differences in socio-emotional outcomes between children with a disability & from a migrant background and their typically developing peers

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Literature review

• Socio-emotional competence is a key educational outcome

• Children with disability experience poorer socio-emotional outcomes than their peers without disability

• Migrant children are at increased risk of experiencing internalised problem behaviour such as depression or anxiety

1(Ashdown and Bernard, 2012; Becker and Luthar, 2002; Humphrey, 2013; Rose-Krasnor and Denham, 2009)
2(Davis & Watson, 2001; Lindsay, 2007)
3(Belhadj Kouider et al., 2014)
### Factors influencing socio-emotional outcomes

<table>
<thead>
<tr>
<th>Individual</th>
<th>Contextual</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Disability</strong></td>
<td><strong>Socio-economic background</strong></td>
</tr>
<tr>
<td>Learning disability &amp; emotional behavioural difficulties</td>
<td>Families’ economic vulnerability&lt;sup&gt;7&lt;/sup&gt;</td>
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<tr>
<td>• More negative perception of themselves&lt;sup&gt;4&lt;/sup&gt;</td>
<td>• Prevalence of SEN is higher in families of semi-skilled/unskilled workers &amp; in inactive households&lt;sup&gt;8&lt;/sup&gt;</td>
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<tr>
<td>• Lower well-being scores&lt;sup&gt;5&lt;/sup&gt;</td>
<td>• Higher level of emotional-behavioural difficulties</td>
</tr>
<tr>
<td>Language disorders&lt;sup&gt;6&lt;/sup&gt;</td>
<td><strong>Disadvantaged school contexts</strong>&lt;sup&gt;8&lt;/sup&gt; is related to the identification of emotional behavioural difficulties</td>
</tr>
<tr>
<td>• E.g., study in the Netherlands found language disorders in 8 year old children were negatively associated with their attitude to school work, behaviour towards others &amp; lower QOL</td>
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<sup>4</sup>(Smyth, 2015); <sup>5</sup>(Cosgrove et al.’s, 2014); <sup>6</sup>(Bakopoulou & Dockrell, 2016; Van Agt, Verhoeven, Van den Brink & De Koning, 2011); <sup>7</sup>(Parish & Cloud, 2006; Park, Turnbull, & Turnbull, 2002; Van der Mark, Conradie, Dedding, & Broerse, 2017; Watson et al., 2015); <sup>8</sup>(Banks et al., 2012); <sup>9</sup>(Belhadj Kouider et al., 2014)
Socio-emotional outcomes of immigrant children in Ireland

- Increased number of migrant children in European countries in the last decade\(^\text{10}\)
- In Ireland\(^\text{11}\):
  - No differences in mental health between 9 year old Irish and migrant children
  - Greater proportion of migrant children presented abnormal hyperactivity levels

\(^\text{10}\)(Belhadj Kouider, Koglin, and Petermann, 2014)
\(^\text{11}\)(Cotter et al., 2017)
Gaps

1) Lack of studies examining differences in socio-emotional outcomes between children with disabilities and of migrant background and their typically developing peers. Research to date has focused on disability & migration separately, but not the intersection between the two;

2) Lack of Irish studies examining change of socio-emotional outcomes in children with disability over time.
Aims

1) Whether Irish children with disabilities who also have a migrant background, experience additional socio-emotional challenges than their typically developing peers and peers with disabilities with no migrant background over time;

2) Whether other socio-economic factors for which migration has been identified as a proxy influence the socio-emotional outcomes of Irish children with disabilities over time.
• **Participants**: children participating in GUI at W1 & W2 (n=7,525)
  • Analytical sample of 6,563 for the multivariate analyses

• **Measures (overview)**:
  • **Outcome measure**:
    • **Socio-emotional outcomes**: 3-category variable derived from SDQ total scores, designed to reflect changes in total score as reported by the primary caregiver between W1 & W2

  • **Predictors**:
    • **Impairment & activity limitation**: a conservative approach, whereby only those children who had a specific, named impairment that persisted between waves were included
    • **Migrant background**: primary caregiver reported at W1 that they were born outside of either the UK or Ireland
    • **Other predictors**: primary caregiver education, primary caregiver report on the conflict sub-scale of the Pianta Child-Parent Relationship Scale, child’s gender, household income.
**Methodology (2/3)**

- **Impairment & activity limitation:**
  - **Stage 1:** Children with a persistent & named impairment from W1 to W2:
    - Physical disability
    - Speech or language difficulty
    - General or specific learning disability
    - Autism spectrum disorder
    - **Total 11.7% (n = 805)**
      - (Children whose teacher or primary caregiver had identified a persistent emotional or behavioural difficulty were excluded, to avoid any possible confusion)
  - **Stage 2:** Single ‘impairment’ group sub-divided into 2, giving a 3 category impairment variable:
    - Children with no impairment (88.3%, n=6,097)
    - Children with ‘Impairment only’ (4.6%, n=315)
    - Children with ‘Impairment & activity limitation’ (7.1%, n=490)

W1 weights have been applied for this and subsequent slides.
• **Socio-emotional outcomes:**
  
  • Overall, SDQ scores between waves show a mean change of -0.84 (SD 4.34), which is a small drop in total score, signifying slightly improved outcomes from waves 1 to 2.
  
  • However, our categorical variable for SDQ total focuses attention on children with most difficulties, & identifies children with similar patterns of stability & change between age 9 and 13 yrs.
  
  • Derived variable uses a threshold of 17, above which SDQ total scores deemed ‘abnormal’ (Goodman, 1997\(^{12}\)).
  
  • 3 categories devised:
    
    • Children with above-threshold scores at both waves (2.9%, n=214).
    • Children with below-threshold scores at both waves (89.5%, n=6,564).
    • Children whose above-threshold scores at one wave only (7.6%, n=557).

\(^{12}\) (Goodman, 1997)
• **Socio-emotional outcomes between waves:**
  • Logistic regression to consider any possible associations between impairment and socio-emotional outcomes across waves, over and above known predictors e.g. conflict
  • Children in the ‘persistent difficulties’ category were more likely to:
    • Have a primary caregiver with the lowest level of education (6.0 times odds)
    • Have higher levels of parent-child conflict at W1 (1.2 times odds, per Pianta scale point (max 60)
    • Have lower equivalised household income
    • Have an ‘impairment only’ (3.7 times odds)
    • Have an impairment AND activity limitation (15.6 times odds)
  • Children with above-threshold scores at either wave, had 3.4 (impairment only) and 3.8 (impairment and activity limitation) greater odds of being in this group than their peers with no impairment at all.
• **Results for ‘migrant status’:**
  • Factorial ANOVA analysis did not identify any interaction between having a disability and coming from a migrant background on SDQ total score at either W1 or W2
  • While ‘migrant status’ was retained in all analyses, it was not statistically significant for socio-emotional outcomes between waves (logistic regression)
### Probability of having persistently poor socio-emotional outcomes (SDQ total score >= 17) between age 9 & 13 years *(sample weights applied)*

*(Reference category: SDQ total score <17 at both waves)*

<table>
<thead>
<tr>
<th></th>
<th>B (SE)</th>
<th>Lower</th>
<th>Odds Ratio</th>
<th>Upper</th>
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<tbody>
<tr>
<td><strong>Disability (ref: no impairment)</strong></td>
<td></td>
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<tr>
<td>Impairment &amp; activity limitation</td>
<td>2.746 (.204)***</td>
<td>10.439</td>
<td>15.581</td>
<td>23.257</td>
</tr>
<tr>
<td>Impairment only</td>
<td>1.321 (.335) ***</td>
<td>1.944</td>
<td>3.746</td>
<td>7.217</td>
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<tr>
<td><strong>Migrant status (ref: no migrant background)</strong></td>
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<td></td>
<td>-.495 (.536)</td>
<td>.213</td>
<td>.610</td>
<td>1.745</td>
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<tr>
<td><strong>Gender (ref: girls)</strong></td>
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<td></td>
<td>.218 (.186)</td>
<td>.864</td>
<td>1.243</td>
<td>1.789</td>
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<tr>
<td><strong>Primary caregiver education (ref: primary degree / postgraduate degree)</strong></td>
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<tr>
<td>Lower secondary or below</td>
<td>1.789 (.394)***</td>
<td>2.765</td>
<td>5.984</td>
<td>12.950</td>
</tr>
<tr>
<td>Higher secondary or equivalent</td>
<td>.86 (.393)*</td>
<td>1.123</td>
<td>2.426</td>
<td>5.240</td>
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<tr>
<td>Non degree</td>
<td>.842 (.442)</td>
<td>.976</td>
<td>2.321</td>
<td>5.517</td>
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<tr>
<td><strong>Pianta Child-Parent relationship scale (conflict)</strong></td>
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<tr>
<td></td>
<td>.172 (.010) ***</td>
<td>1.166</td>
<td>1.188</td>
<td>1.211</td>
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<tr>
<td><strong>Transformed equivalised household income/100</strong></td>
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<td></td>
<td>-.891 (.438)*</td>
<td>.174</td>
<td>.410</td>
<td>.968</td>
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</table>

*** p<.001, ** p<.01, * p<.05.
• The findings resonate with previous studies:
  – On the significant relationship between disability and poor mental health\(^ {13}\)
  – No significant interaction between migration and disability and poor socio-emotional outcomes\(^ {14}\)
  – Socio-economic indicators significantly related to socio-emotional outcomes
    • (This study found 2 in particular: household income and primary caregivers’ level of education)

• Limitations
  – Variable definitions

\(^ {13}\)Bakopoulou & Dockrell, 2016; Bryan, Burstein, & Ergul, 2004; Davis & Watson, 2001; Emmerson et al., 2019; Haft, Chen, LeBlanc, Tencza, & Hoeft, 2019; Lindsay, 2007; Van Agt, Verhoeven, Van den Brink & De Koning, 2011); \(^ {14}\) (Cotter et al., 2017)
• Recommendations for policy and practice
  – Educational and social services need to be aware of the higher likelihood of children and adolescents that may require mental health services in addition to other disability specific accommodations
  – This is even more important for children living in lower income households and whose parents have lower levels of education


