A longitudinal examination of maternal, family, and area-level experiences of racism on children’s socioemotional development in the UK: patterns and possible explanations

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Theoretical Framework

• Linked lives approach - interdependence of individual lives within a social network, such as a family, so that changes, events, and stressors occurring in one person’s life also have consequences for the lives of others around them (Elder, 1994).

• Useful lens to examine ethnic inequalities in health → racially motivated stressors not only detrimental to the health and life chances of one isolated individual, but also impact on other family members, maintaining and reproducing social and health inequalities across and within generations (Gee et al., 2012).
Ethnic groups in England and Wales, 2011

Source: 2011 Census
Racism

• Ideology of inferiority used to justify unequal treatment (discrimination) of members of groups defined as inferior, by both individuals and societal institutions (Williams, 1999).

  o Interpersonal or personally mediated
  o Institutional
  o Internalised
Racism and adult health

• Distal causal mechanism of ethnic inequalities in health

• Experienced racism associated with outcomes including:
  o Higher levels of stress
  o High blood pressure
  o Poor mental health
  o Detrimental health behaviours (e.g., smoking)
  o Poor self-rated health
  o Limiting longstanding illness

Krieger et al., 1993; Williams et al., 2003; Harris et al., 2006; Paradies et al., 2006; Karlsen & Nazroo, 2000; Bécares et al., 2009
Among ethnic minorities in England and Wales:

24% report being fairly or very worried of experiencing a physically attack because of their skin colour, ethnic origin or religion.

13% have, in the last 2 years, personally experienced harassment in the area where they live because of their skin colour, ethnic origin or religion.

12% have been discriminated against when they have been refused or turned down for a job in the last five years.

8% have been discriminated against at work with regard to promotion or a move to a better position in the last five years.

Source: 2010-11 Citizenship Survey
Interpersonal racism, last 12 months

- Physical attack due to ethnic origin:
  - Black Caribbean: 3%
  - Indian: 3%
  - Pakistani: 4%
  - Bangladeshi: 2%

- Racist Insult:
  - Black Caribbean: 14%
  - Indian: 9%
  - Pakistani: 11%
  - Bangladeshi: 8%

Source: Fourth National Survey of Ethnic Minorities; weighted estimates, rounded to nearest percent
Interpersonal racism in New Zealand

Source: Harris et al., 2006 – data from 2003 NZHS; weighted estimates, rounded to nearest percent
Interpersonal racism in NZ and in UK, last 12 months

Physical attack due to ethnic origin
- Māori: 3%
- Pacific: 1%
- Asian: 2%

Racist Insult
- Māori: 11%
- Pacific: 4%
- Asian: 12%

Physical attack due to ethnic origin
- Black Caribbean: 14%
- Indian: 11%
- Pakistani: 9%
- Bangladeshi: 8%
Child health inequalities in NZ

• Māori and Pacific children tend to be exposed to a greater number of risk factors for vulnerability than NZ European or Asian children at each time point and across time (GUINZ 2014 report)

• Babies born to Asian mothers are 130 grams lighter on average than babies born to NZ European mothers (fully adjusted models; GUINZ 2012 report)

• Hospital admissions higher for Māori and Pacific children than NZ European children (NZCYES: Indicator Handbook, 2007)

• All-cause death rates 36% higher for Māori compared to non-Māori children (Robson and Harris, 2007)
Racism and child health

• Cross-sectional analyses of MCS data have shown maternal experiences of racist insults associated with non-verbal ability scores (Kelly, Bécares, and Nazroo, 2013)

• Recent systematic review of studies on racism and health of children and young people (Priest et al., 2013):
  – Strong, consistent association between racial discrimination and negative mental health outcomes,
  – Negative relationship between racial discrimination and positive mental health outcomes (e.g., self-esteem)
  – Most studies cross-sectional and from U.S.
  – Need to examine pathways by which racism impacts on child health
Does racial discrimination experienced by other individuals in the children’s environment affect children’s socioemotional development over time?

How?

1. Decrease in maternal mental health

2. Increase in harsh parenting practices
Pathway 1: Maternal mental health

A worsening in maternal mental health following direct, family, and area-level experiences of racial discrimination will have an indirect effect on socioemotional development among children over time.

- Longitudinal association between experienced racial discrimination and poor mental health (Brody et al., 2006; Brown et al., 2000; Jackson et al., 1996; Schulz et al., 2006).

- Maternal depression linked to children’s socioemotional, cognitive, and physical health, through mechanisms including slower responses to children’s verbal or physical interactions, reduced quantity and quality of these interactions, and difficulty asserting authority (Cummings et al., 1994: Downey et al., 1990: Goodman et al., 1990).
Pathway 2: Harsh parenting practices

Stress caused by experiences of racial discrimination will increase maternal harsh parenting practices over time, leading to a decrease in children’s socioemotional development.

- Stress associated with increased harsh and punitive parenting (Simons et al., 2002).
- Harsh parenting practices linked to adverse child outcomes, including externalising behaviours and poor mental health (Brooks-Gunn et al., 1993).
Hypothesised Model

Racism

Mother’s mental health

Child health and development

Harsh parenting practices
Different levels of exposure to racism

- Maternal and family exposures likely to induce stress on the mother after direct or vicarious experiences of racial discrimination.

- Area-level racial discrimination may elicit stress by creating a state of hypervigilance by the mothers resulting from fear that they, or their children, might be the victims of racial discrimination.
Data: Millennium Cohort Study

• Prospective cohort study; 18,818 children born in 2000/2001

• Over-sample of ethnically mixed and disadvantaged areas

• Data collected when cohort member was 9 months (MCS1), 3 years (MCS2), 5 years (MCS3), 7 years (MCS4) and 11 years (MCS5)

• Study sample restricted to complete data from singletons born to ethnic minority mothers who were productive from MCS3 to MCS5 (n=1,608).

• Natural mother is main respondent in 97% of cases
Measures: racial discrimination

Collected at MCS3. In the past 12 months...

• “How often has someone said something **insulting** to you just because of your race or ethnicity?”
• “How often has a **shop keeper or sales person** treated you in a **disrespectful** way just because of your race or ethnicity?”
• “how often have you been **treated unfairly** just because of your race or ethnicity?”
• “how often have **members of your family** been treated unfairly just because of their race or ethnicity?”
  (0: never; 1: once or more)
• “In this **area, how common are insults or attacks** to do with someone's race or colour?”
  (0: not very, not at all common; 1: fairly, very common)
Mediators

• Kessler 6-item scale (Kessler et al., 2002) used to measure maternal mental health (continuous variable, higher score = more psychological distress).

• Items from Conflict Tactics Scale (Straus et al. 1998) used to measure harsh discipline. How often main respondent tells child off, smacks child, shouts at child if naughty (1: never, 2: rarely, 3: about once a month, 4: about once a week or more, or 5: daily). Summed variable, higher values = harsher discipline.
Child Outcomes

- Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) used to measure children’s socioemotional behaviour. Questions on five domains of social and emotional behaviour: conduct problems, hyperactivity, emotional symptoms, peer problems and pro-social behaviour. Scores from the first four domains are summed to construct a total difficulties score. Reported by the mother. Continuous variable, higher score=increased socioemotional difficulties.

- Psychological Distress measured with summed scale from 6 items: “in the last 4 weeks, how often did you feel happy (r) / worried / sad / afraid / laugh (r) / angry?” Responses ranging from 1: Never, to 5: Almost always. Reported by the child. Continuous variable, higher score=increased psychological distress.
Analysis Plan

- Indirect effect estimated with the product of the two coefficients $\alpha \beta$
- Statistical significance of indirect effects based on bias-corrected confidence intervals (CIs) of estimates. The indirect effect is significant if upper and lower bounds of bias corrected CIs do not contain zero
- Standard errors and confidence intervals computed using replicate weights with the bootstrap method (5,000 bootstrap draws; Asparouhov & Muthen, 2010)
Analysis Plan

- Adjusted for cohort member’s gender and age, mother’s age at the time of birth, languages spoken at home (only or mostly English vs. other), mother’s nativity (born in the UK vs. abroad), marital status, equivalised household income and maternal highest qualification.

- Adjusted for maternal mental health and harsh parenting practices at MCS3.

- Models that focused on socioemotional development adjusted for SDQ score at MCS4.

- Models that focused on psychological distress adjusted for ‘how often do you get sad’ and ‘how often do you get worried’ items at MCS4.

- Mplus v.7 using modelling specification for complex sample data.
Analysis Plan

• Tests for a differential association between measures of racial discrimination, mental health, parenting practices and socioemotional development did not provide any evidence that these associations vary by ethnic minority group.

• Analyses use pooled data of all ethnic minority groups combined, which included singleton children from mothers of Indian (n=302), Pakistani (n=508), Bangladeshi (n=202), Black Caribbean (n=158), Black African (n=208), and other non-white (n=230) ethnic groups.
<table>
<thead>
<tr>
<th></th>
<th>MCS3 (5 years) M(SD)</th>
<th>MCS4 (7 years) M(SD)</th>
<th>MCS5 (11 years) M(SD)</th>
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<tbody>
<tr>
<td>Children’s socioemotional</td>
<td></td>
<td></td>
<td>7.92 (5.37)</td>
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<tr>
<td>difficulties (SDQ) (0-32)</td>
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<tr>
<td>Children’s psychological</td>
<td></td>
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<td>11.48 (3.68)</td>
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<tr>
<td>distress (6-28)</td>
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<tr>
<td>Mother’s mental health</td>
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<td>3.74 (4.24)</td>
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<td>(K6) (0-24)</td>
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<tr>
<td>Discipline practices (3-14)</td>
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<td>7.91 (2.02)</td>
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<td>Received insults, %</td>
<td>24</td>
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<td>Disrespectful treatment from</td>
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<td></td>
<td></td>
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<tr>
<td>shop staff, %</td>
<td></td>
<td></td>
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<tr>
<td>Unfair treatment, %</td>
<td>19</td>
<td></td>
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<tr>
<td>Family treated unfairly, %</td>
<td>23</td>
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<tr>
<td>Racism in area is fairly,</td>
<td>12</td>
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<tr>
<td>very common, %</td>
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<tr>
<td>SDQ</td>
<td>Received Insults</td>
<td>Coeff.</td>
<td>S.E. / 95% C.I (BC)</td>
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<tr>
<td></td>
<td>Racism → Mother’s mental health</td>
<td>0.69</td>
<td>0.38</td>
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<td></td>
<td>Racism → Harsh parenting practices</td>
<td>0.23</td>
<td>0.17</td>
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<td>Mother’s mental health → Psychological distress</td>
<td>0.24</td>
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<tr>
<td></td>
<td>Harsh parenting practices → Psychological distress</td>
<td>0.47</td>
<td>0.20</td>
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<td></td>
<td>Racism → Psychological distress</td>
<td>1.07</td>
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<td></td>
<td>Total effect</td>
<td>0.81</td>
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<tr>
<td></td>
<td>Direct effect</td>
<td>0.16</td>
<td>0.02 – 0.47</td>
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<tr>
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<td>IND: MH</td>
<td>0.10</td>
<td>0.00 – 0.32</td>
</tr>
<tr>
<td></td>
<td>IND: Parenting pr.</td>
<td>0.27</td>
<td>0.07 – 0.63</td>
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<tr>
<td></td>
<td>Total Indirect</td>
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</table>
## SDQ

<table>
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<tr>
<th>Family treated unfairly</th>
<th>Racism in area is fairly, very common</th>
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<tbody>
<tr>
<td>Coeff.</td>
<td>S.E. / 95% C.I (BC)</td>
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<tr>
<td>Racism → Mother’s mental health</td>
<td>0.88</td>
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<tr>
<td>Racism → Harsh parenting practices</td>
<td>0.23</td>
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<tr>
<td>Mother’s mental health → Psychological distress</td>
<td>0.24</td>
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<tr>
<td>Harsh parenting practices → Psychological distress</td>
<td>0.48</td>
</tr>
<tr>
<td>Racism → Psychological distress</td>
<td>0.76</td>
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</tbody>
</table>

- **Total effect**
- **Direct effect**
- **IND: Mental health**
- **IND: Parenting practices**
- **Total Indirect**
<table>
<thead>
<tr>
<th></th>
<th>Received Insults</th>
<th>Disrespectful treatment from shop staff</th>
<th>Unfair Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>S.E. / 95% C.I (BC)</td>
<td>Coeff.</td>
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<td><strong>Racism → Mother’s mental health</strong></td>
<td>0.67</td>
<td>0.39</td>
<td><strong>0.94</strong></td>
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<td>0.24</td>
<td>0.16</td>
<td>0.01</td>
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<td><strong>Mother’s mental health → Psychological distress</strong></td>
<td>-0.04</td>
<td>0.08</td>
<td>-0.04</td>
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<tr>
<td><strong>Harsh parenting practices → Psychological distress</strong></td>
<td><strong>0.36</strong></td>
<td><strong>0.12</strong></td>
<td><strong>0.35</strong></td>
</tr>
<tr>
<td><strong>Racism → Psychological distress</strong></td>
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<tr>
<td><strong>Total effect</strong></td>
<td><strong>0.39</strong></td>
<td><strong>0.28</strong></td>
<td><strong>0.59</strong></td>
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<td><strong>Direct effect</strong></td>
<td>0.33</td>
<td>0.30</td>
<td>0.62</td>
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<tr>
<td><strong>IND: MH</strong></td>
<td>-0.03</td>
<td>-0.17 – 0.04</td>
<td>-0.04</td>
</tr>
<tr>
<td><strong>IND: Parenting pr.</strong></td>
<td>0.09</td>
<td>0.00 – 0.24</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Total Indirect</strong></td>
<td>0.06</td>
<td>-0.05 – 0.22</td>
<td>-0.03</td>
</tr>
</tbody>
</table>
## Psychological Distress

<table>
<thead>
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<tr>
<td></td>
<td>Coeff.</td>
<td>S.E. / 95% C.I (BC)</td>
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<tr>
<td><strong>Racism → Mother’s mental health</strong></td>
<td>0.88</td>
<td>0.44</td>
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<td><strong>Racism → Harsh parenting practices</strong></td>
<td>0.25</td>
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<td><strong>Mother’s mental health → Psychological distress</strong></td>
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<td>0.12</td>
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<td>0.35</td>
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<tr>
<td><strong>Direct effect</strong></td>
<td>0.13</td>
<td>0.37</td>
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<tr>
<td><strong>IND: Mental health</strong></td>
<td>-0.03</td>
<td>-0.20 – 0.06</td>
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<tr>
<td><strong>IND: Parenting practices</strong></td>
<td>0.09</td>
<td>0.00 – 0.26</td>
</tr>
<tr>
<td><strong>Total Indirect</strong></td>
<td>0.06</td>
<td>-0.06 – 0.24</td>
</tr>
</tbody>
</table>
Summary of Findings

• Experiences of disrespectful treatment from shop staff and reports of unfair treatment experienced by family at MCS3 associated with lower levels of mother’s mental health at MCS4.

• Maternal mental health and harsh parenting practices at MCS4 associated with increase in children’s socioemotional difficulties at MCS5.

• Increased harsh parenting practices at MCS4 associated with increased children’s psychological distress at MCS5.
Summary of Findings

• Indirect effect of maternal experiences of racially motivated insults, unfair treatment, disrespectful treatment by shop staff, and reports of family being treated unfairly, on SDQ through maternal mental health.

• Indirect effect of reports of family treated unfairly on SDQ through harsh parenting practices.

• Area-level racism directly associated with increased psychological distress.
Discussion

• Evidence of indirect effects through maternal mental health
  – Parental support of and sensitivity to children decreases when carers are stressed by their own experiences of racial discrimination (Sanders-Phillips et al., 2009)

• Some evidence of indirect effects through harsh parenting practices
  – US studies show that experiences of racial discrimination have a disruptive effect on parenting (Simons et al., 2006). It decreases parents’ likelihood of providing a warm and caring environment (Landrine and Klonoff, 1996).

• Area-level racism important for children’s psychological distress
  – Proxy for direct experiences
  – Witness of racist event
Limitations

- Analyses limited to examining mother-centred mechanisms, and didn’t account for other household dynamics which have also been shown to be important for children’s socioemotional development (Panico, Bécares and Webb, 2014)

- Underestimation of racial discrimination
  - Past-year measure
  - Only vicarious exposure for children
  - No measure of institutional racism
  - No school environment

  - Reports of discrimination among Indigenous and ethnic minority secondary school students in NZ associated with poor health and binge drinking (Crengle et al., 2012)
• Despite limitations, findings show that growing up in a racist environment (with exposure at the household, family, or neighbourhood) is detrimental for the socioemotional development of children
  – All measures of racial discrimination examined had a detrimental effect, either direct or indirect, on children’s socioemotional development
Acknowledgments

Papaarangi Reid and Te Kupenga Hauora Māori
Hallsworth Research Fellowship & ESRC Future Research Leaders grant
James Nazroo and Yvonne Kelly
Donna Cormack and Ricci Harris
Tēnā koutou katoa

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