Does school punishment undermines cognitive and non-cognitive outcomes?

Contribution to the UNICEF Multi-Country Study on the Drivers of Violence Affecting Children

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Kirrily Pells
Why corporal punishment in school matters?

• The use of corporal punishment in schools remains hotly contested:
  • Proponents argue ‘mild’ or ‘moderate’ are an effective and non-detrimental means of instilling discipline and obedience.
  • Opponents argue corporal punishment has detrimental effect (e.g. low class participation, school absence or drop out, declining self-worth or self-esteem)

• UN Committee on the Rights of the Child prohibits corporal punishment in any setting and requires States to ensure school discipline in a manner consistent with child’s human dignity.
  • Positive progress with legislation in school settings, but practice and monitoring differs (remains a challenge!) across settings.

• Dearth of data on corporal punishment in schools. Hence:
  • Most research focuses on parents and other caregivers
  • Little is known about corporal punishment in schools, particularly in developing countries.
Study design

- Data on 1,000 children born in 1994/95. Older Cohort=OC
- Data on 2,000 children born in 2001/02. Younger Cohort=YC

Living in 20 sentinel sites in each of the 4 study countries: Ethiopia, India (Andhra Pradesh and Telangana), Peru an Vietnam.

Data collected on school punishment

<table>
<thead>
<tr>
<th>OC:</th>
<th>8</th>
<th>12</th>
<th>15</th>
<th>19</th>
<th>22</th>
</tr>
</thead>
<tbody>
<tr>
<td>YC:</td>
<td>2</td>
<td>5</td>
<td>8</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Following 1,000 children

Measure of corporal punishment

- In Round 3 of the survey, we asked 8-year-olds and 15-year-olds enrolled in school the following questions:

  Think about the past week at school, or the last week you were in school.
  1. In that week, did you see a teacher use physical punishment on other students?
  2. In that week, did the teacher use physical punishment on you?

  Answers coded as:
  0 = Never
  1 = Once or twice or Most/all of the time’.

- **Physical punishment** was defined as any spanking, beating, punching, twisting child’s ears or any other hitting, by using hand or an implement (Young Lives questionnaires).
Descriptives

- Children’s self-reports on prevalence of teacher’s use of physical punishment

  - Corporal punishment is widespread in schools in these countries especially at younger ages.

- Among the 8-year-olds:
  - 51% in Vietnam
  - 42% in Ethiopia
  - 38% in Peru
  - 26% in India.

- Many children fear teacher’s corporal punishment. For example, 72% of 10-year-olds in Vietnam.

  - Violence in school is a key reason why children dislike school.
What risk factors are associated with corporal punishment in schools at age 8?

- We look at:
  - **Descriptive statistics**
    - Prevalence of corporal punishment by child and household characteristics (e.g. gender, ethnicity, parental education).
    - Characteristics of children punished vs. non-punished.
  
- **Regression analysis with different specifications**
  - OLS (linear probability model)
  - Community/cluster fixed effects (within community effects)
  - School fixed effects (within school effects)
Characteristics of punished and non-punished children, age 8

- Means of outcome/characteristics

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Ethiopia</th>
<th>India</th>
<th>Peru</th>
<th>Vietnam</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Punished</td>
<td>Punished</td>
<td>Not Punished</td>
<td>Punished</td>
</tr>
<tr>
<td>Male</td>
<td>0.460</td>
<td>0.61***</td>
<td>0.41</td>
<td>0.57***</td>
</tr>
<tr>
<td>Z-score of weight-for-age</td>
<td>-1.530</td>
<td>-1.530</td>
<td>-1.69</td>
<td>-1.91***</td>
</tr>
<tr>
<td>Wealth index</td>
<td>0.350</td>
<td>0.360</td>
<td>0.53</td>
<td>0.51**</td>
</tr>
<tr>
<td>Logarithm of expenditure per capita</td>
<td>4.890</td>
<td>4.900</td>
<td>6.63</td>
<td>6.6</td>
</tr>
<tr>
<td>Urban locality</td>
<td>0.430</td>
<td>0.51***</td>
<td>0.29</td>
<td>0.24**</td>
</tr>
<tr>
<td>Grade enrolled</td>
<td>2.070</td>
<td>2.220</td>
<td>2.58</td>
<td>2.53</td>
</tr>
<tr>
<td>Child attends private school</td>
<td>0.120</td>
<td>0.090</td>
<td>0.5</td>
<td>0.43**</td>
</tr>
<tr>
<td>Index of agency</td>
<td>0.040</td>
<td>-0.010</td>
<td>0.02</td>
<td>0.00</td>
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<tr>
<td>Index of self-esteem</td>
<td>0.020</td>
<td>0.050</td>
<td>0.04</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

- Consistent gender bias across countries.
- Socioeconomic status matters (3 out of 4 countries).
- Differences by urban and rural location in all countries.
Risk factors associated with corporal punishment in school at age 8

• Results of regression analysis:

• More likely to be punished:
  • **Males:** across all countries and specifications $\rightarrow$ *Between 8 and 16 percentage points more likely*
  • **Children attending government school** as compared to private in Ethiopia (within communities) $\rightarrow$ *About 10 percentage points more likely*
  • **Children in urban localities** in Ethiopia and Vietnam (OLS only) $\rightarrow$ *Between 7 and 14 percentage points more likely*
  • **Children whose teacher misses class frequently** (for Ethiopia only, across specifications) $\rightarrow$ *Around 9 percentage points more likely*

• Less likely to be punished:
  • **Children belonging to more educated households** in India, Peru and Vietnam (school FE) $\rightarrow$ *Effects are small In India and Peru (about 2 percentage points for an increase in 4 years of maternal education)*
  • **More able children** in a test at age 5 in Peru $\rightarrow$ *about 2 percentage points*
Does corporal punishment affect child outcomes at age 8 and later at age 12?

### At 8
- **Child and household characteristics**
- **Corporal Punishment**
- **Educational and related outcomes**
  - Agency
  - Self-esteem
  - Maths

### At 12
- **Child and household characteristics**
- **Educational and related outcomes**
  - Agency
  - Self-esteem
  - Maths

**Reverse causation**

With lagged indicators

Without lagged indicators
Results at age 8

- Regression analysis
  - OLS (linear probability model)
  - Community/cluster fixed effects (within community effects)
  - School fixed effects (within school effects)

Coefficient of corporal punishment at age 8

<table>
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<tr>
<th></th>
<th>Agency</th>
<th>Self-esteem</th>
<th>Maths</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OLS</td>
<td>Cluster FE</td>
<td>School FE</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>-0.062* (0.033)</td>
<td>-0.063* (0.034)</td>
<td>-</td>
</tr>
<tr>
<td>India</td>
<td>-</td>
<td>-</td>
<td>-0.079* (0.044)</td>
</tr>
<tr>
<td>Peru</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Vietnam</td>
<td>-0.087* (0.043)</td>
<td>-0.097** (0.041)</td>
<td>-</td>
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Results at age 12

- Regression analysis
  - OLS (linear probability model)
  - Community/cluster fixed effects (within community effects)

Coefficients of corporal punishment at age 8

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<tr>
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<td>Ethiopia</td>
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<td></td>
<td>-0.077** (0.031)</td>
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