Assessing the impact of a school-based peace building intervention: results from the Living Side by Side program in Kyrgyzstan

Seminar “Impact Evaluations in Fragile States”
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Introduction

• Interventions to reduce prejudice, discrimination, or intolerance, popular within government and non-government programs

• Basic idea: fostering intergroup (e.g. religion –ethnic –gender) tolerance may help people to reconcile with the (violent) past and avoid future tensions
  – Intergroup Contact theory (Allport, 1954)

• Interventions can of be various types:
  – reading (Pouzezavara, Costello and Banda, 2013)
  – jointly listening to a radio soap opera (Paluck, 2009)
  – youth theater for peace (Nigmatov, 2013)
  – peace workshops (Kelleher and Ryan, 2012)
  – wilderness course (Green and Wong, 2009)
  – Etc.

• Yet, little systematic evidence of their effectiveness
“Living Side By Side”

• 6-8 week (36 hours) after-school training program for youth to foster inter-personal/ethnic/religious/racial understanding, leadership and conflict resolution skills

• Training of youth preceded by Training of trainers (TOT) (8 days) where school teachers are trained to teach the LSBS curriculum

• Training sessions consisted of structured interactive learning activities, such as games, discussions, teamwork challenges, readings, and skill practice exercises

• Program ended with development and implementation of a school or community project, working in multi-ethnic groups and serving multi-ethnic audiences, to demonstrate and practice the skills learned during the training
Theory of change

Activities: 6-8 week peace-building training, finalized with a community project

Outputs: X Students trained and X community projects implemented

Outcomes: Increased understanding of what tolerance means; pos. changes in perception of self & others; Increased intergroup cooperation/interaction
Evaluation design

Schools selected based on criteria (31)

Criteria:
- Public schools
- Russian language of instruction
- Multiethnic
- Sufficient number of youths in 9-11 grades

Pilot schools (10)  Control schools (10)
Study area
LSBS map

Sample of schools.xlsx
- Control
- Pilot

20 project schools mapped
Target population

- Recruitment: 30-minutes presentation, distribution of flyers and application forms (1 page) in both T&C schools
- Motivated students applied to receive extra-curricular training
- Self-selection into the program → challenge for finding a valid control group
- Oversubscription facilitates finding comparable controls in treatment schools
- Lottery assigns students to treatment and control groups within treatment schools
- We ‘mimic’ the application process in control schools
  - Incentive (school staff) : school receives a projector
  - Incentive (students) : promised to receive treatment after the study period in case of sufficient interest and external funds
Selection of students

Pilot school

Motivated students

Control school

pilot students (20)

control students (20)

“clean” control students (20)
Data

• Student, household surveys, behavioral games, network data, local violence events data
• Three rounds of intervention; for each round we collected base-and midline data, for R1 and R2 we also have a second-follow up one year after the program
DID with matching & PSM

• Initial idea: matching school pairs; estimate impact within pairs
• Yet, the low number of schools made it impossible to create balanced pairs
• Alternative: match individuals based on observable characteristics that predict treatment & affect outcomes, yet are not influenced by the treatment itself
  – Age
  – Gender
  – Ethnicity
  – Plans to study at university
## Data

<table>
<thead>
<tr>
<th></th>
<th>Treatment schools</th>
<th>Control schools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R1</td>
<td>R2</td>
</tr>
<tr>
<td><strong>Applied to LSBS</strong></td>
<td>651</td>
<td>149</td>
</tr>
<tr>
<td><strong>Selected for LSBS</strong></td>
<td>249</td>
<td>235</td>
</tr>
<tr>
<td><strong>Selected for control</strong></td>
<td>402</td>
<td>256</td>
</tr>
<tr>
<td><strong>Pure reserves</strong></td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td><strong>Refused/Rejected LSBS at the beginning</strong></td>
<td>36</td>
<td>0</td>
</tr>
<tr>
<td><strong>Stopped LSBS participation</strong></td>
<td>23</td>
<td>45</td>
</tr>
<tr>
<td><strong>Completed LSBS</strong></td>
<td>178</td>
<td>185</td>
</tr>
</tbody>
</table>
Outcome indicators

Knowledge (follow-up only)
- about mediation skills
- about what unequal treatment is

Attitudes and beliefs (base-and follow-up)
- In-and out-group trust
- Self-efficacy questions
- Locus of control

Behavior
- Engagement in fights past 12 months (base-and follow-up)
- Measure of altruism (follow-up)
- Measure of risk-seeking behavior (follow-up)
- Proportion of non-co-ethnic friends in their social network (follow-up)
Empirical strategy

\[ Y_{ijt} = \alpha_j + \beta_1 T_{ij} + \beta_2 post_t + \beta_3 (T_{ij} * post_t) + \varepsilon_{ijt} \]

- \( Y_{ijt} \): Outcome of interest
- \( \alpha \): Constant
- \( T_{ij} \): Treatment variable that is 1 if treatment was offered and 0 otherwise
- \( post_t \): Time dummy that is 1 for mid/endline and 0 otherwise
- \( \varepsilon_{ijt} \): Error term

Equivalent to estimating double differences
## DID with matching results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>N of obs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average ingroup trust: family, neighb, people you know, same ethn</td>
<td>-0.03</td>
<td>402</td>
</tr>
<tr>
<td>Average outgroup trust: people see 1st time, oth ethn &amp; relig</td>
<td>0.26 ***</td>
<td>400</td>
</tr>
<tr>
<td>Average self-efficacy: confidence</td>
<td>-0.85</td>
<td>372</td>
</tr>
<tr>
<td>Average locus of control</td>
<td>0.02</td>
<td>372</td>
</tr>
<tr>
<td>Kyrgyz language should be the only official language</td>
<td>0.20 **</td>
<td>780</td>
</tr>
<tr>
<td>We need to protect our culture, religion &amp; language from others</td>
<td>0.02</td>
<td>779</td>
</tr>
<tr>
<td>I feel myself at home in Kyrgyzstan</td>
<td>-0.16 *</td>
<td>780</td>
</tr>
<tr>
<td>My school creates safe &amp; non-discrim. environment</td>
<td>0.07</td>
<td>776</td>
</tr>
<tr>
<td>I did fight in last 12 months</td>
<td>-0.05 **</td>
<td>748</td>
</tr>
</tbody>
</table>
# PSM results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>N of obs</th>
</tr>
</thead>
<tbody>
<tr>
<td># of apples given to P2</td>
<td>0.08</td>
<td>376</td>
</tr>
<tr>
<td># of stones donated in r1 (0-5)</td>
<td>0.05</td>
<td>745</td>
</tr>
<tr>
<td># of stones donated in r2 (0-5)</td>
<td>0.29 **</td>
<td>745</td>
</tr>
<tr>
<td># of stones donated in r3 (0-5)</td>
<td>0.18</td>
<td>745</td>
</tr>
<tr>
<td>Average # of stones donated in coop. game</td>
<td>0.17 *</td>
<td>745</td>
</tr>
<tr>
<td># of apples donated (0-5)</td>
<td>0.23 **</td>
<td>746</td>
</tr>
<tr>
<td>Type of lottery chosen (1-5)</td>
<td>0.39 ***</td>
<td>746</td>
</tr>
<tr>
<td>=1 if answered correctly what mediation skills are</td>
<td>0.34 ***</td>
<td>325</td>
</tr>
<tr>
<td>=1 if answered correctly on behavior of unequal treatment</td>
<td>0.01</td>
<td>325</td>
</tr>
</tbody>
</table>
Discussion

• Mixed evidence that the LSBS training is effective in changing knowledge, attitudes and behavior (in the short run)

• Effects are sometimes negative – perhaps exposure made them realize how difficult intergroup tolerance really is?

• Interestingly, the positive findings are on average large in magnitude while the “negative” findings are not

• Qualitative findings tend to be much more positive
Next steps

• Investigating mechanisms
• Spillovers (network effects)
• Long term effects
• Unintended impacts
• Triangulate findings with qualitative outcomes