Exploring School Resilience to Violence in Mexico and Colombia

An analysis using data from ICCS 2009

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Lessons Learned for Understanding Civic and Citizenship Education

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Introduction

- Violence is among the most persistent problems across Latin American societies
  - Mexico and Colombia 1st and 3rd place in homicides with firearm (UNODC 2005)
  - One third of students experienced physical aggression in school (Schultz et al. 2011)

- Exposure to violence hinders the development of citizenship competencies and attitudes, and is strongly associated to violent behavior (Reimers 2007, Flannery, et al. 2007)

- Is it possible to prevent violent behavior among adolescents who are surrounded by violence? *Can schools play a role in reducing the risk of violence?*
Resiliency against violence

- Resiliency against violence is a useful concept for exploring these questions.

- Resiliency is defined as:
  - An occurrence of rebounding or springing back
  - Succeeding against the odds

- Resiliency against violence can be defined as **not presenting violent behavior** despite being surrounded by a violent environment.
Objectives

• To identify school factors associated to the likelihood of resilience against violence:
  
  • First
    
    o To estimate the proportion of schools that are in a high-risk of experiencing violence;
    o Among such schools, the proportion that manage to remain resilient to violence
  
  • Second
    
    o To identify and compare the school factors more consistently associated with school resiliency against violence in Mexico and Colombia

• To test for the association between school resiliency to violence and student achievement in Mexico and Colombia
Methods

Data is from the IEA’s International Civic and Citizenship Education Study (ICCS 2009)

1. We isolate a cohort of high-risk schools

2. We estimated the proportion of these schools that are resilient to violence

3. We use multilevel path analysis models to predict the likelihood of a school in high-risk to remain resilient to violence and the association of resilience to achievement
Methods

1. We isolate a cohort of high-risk schools

• A school is in high risk of violence if it scores higher than the national average in the scale “principal's perceptions of social tension in the community”

• The issues of social tension: Immigration; Poor-quality housing; Unemployment; Religious intolerance; Ethnic conflicts; Extensive poverty; Organized crime; Youth gangs; Petty crime; Sexual harassment; Drug abuse; Alcohol abuse
Methods

2. *We estimated the proportion of these schools that are resilient to violence (high-risk + low incidence of violence)*

- A school has low incidence of violence if it scores lower than the national average in the scale “principals' perceptions of social problems at school”

- Indicators of social problems at school: Vandalism; Truancy; Racism; Religious intolerance; Bullying; Violence; Sexual harassment; Drug abuse; Alcohol abuse
Methods

3. We use multilevel path analysis models to predict the likelihood of a school in high-risk to remain resilient to violence

- **Dependent variables:**
  - Resilient School (dichotomous)
  - Civic knowledge

- **Independent variables:**
  - parents' participation in the school life
  - students' civic participation in the wider community
  - teachers' participation in school governance
  - students behavior at school

- **Control variables:**
  - Student SES
  - School SES
Results

• 85% of the schools in Colombia and 78% in Mexico are considered to be at a high risk of experiencing violence

• In Colombia 37% of those schools remain resilient to violence, while in Mexico this proportion is 32%

Percent of schools at risk of violence and, from those, percent of resilient schools
## Results

### Predictors for School Resilient to Violence (Odds ratios)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mexico</th>
<th>Colombia</th>
</tr>
</thead>
<tbody>
<tr>
<td>School average of students' socioeconomic background</td>
<td>1.26 *</td>
<td>1.76 *</td>
</tr>
<tr>
<td>School average of students' civic participation in the wider community</td>
<td>1.05 *</td>
<td>0.89 *</td>
</tr>
<tr>
<td>School average of teachers' participation in school governance</td>
<td>1.02 *</td>
<td>1.01 *</td>
</tr>
<tr>
<td>School average of teachers' perception of students' behaviour at school</td>
<td>1.08 *</td>
<td>1.16 *</td>
</tr>
<tr>
<td>Principals' perceptions of parents' participation in the school life</td>
<td>1.05 *</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Predictors of Civic Knowledge (Regression Coefficients)

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Mexico</th>
<th>Colombia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student SES</td>
<td>10.336 *</td>
<td>9.937 *</td>
</tr>
<tr>
<td>School resilience to violence</td>
<td>12.73</td>
<td>21.381</td>
</tr>
</tbody>
</table>
Discussion

• This study adds to the body of research on school resiliency against violence in the following ways:
  
  • Contributes to fill a gap in the literature
  
  • Provides insight into the role that education can play
  
  • Points out resiliency-building activities that are amenable to schools (i.e. teachers’ participation in school governance and parent’s participation in schools, students’ behavior at school)
  
  • Points out resiliency-building activities that are amenable to educational policy (i.e. school composition)
  
  • Contributes to the research on school effectiveness and improvement
Limitations

• These analyses presented are not final
  • It is possible that better indices can be created specifically for Colombia and Mexico
  • Further analyses with single items could shed more light into possible mechanisms
  • Other kind of models – e.g. SEM
  • Complement results with qualitative approach

• The nature of the data does not allow a causal interpretation of the observed patterns
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