Sexual violence prevention through empowerment self-defense: A cluster-randomized controlled trial with adolescent women in Malawi

Michele R. Decker, Johns Hopkins University, USA
Shannon N. Wood, Johns Hopkins University, USA
Esther Ndinda, Ujamaa Pamodzi, Malawi
Gayane Yenokyan, Johns Hopkins University, USA
Jake Sinclair, Ujamaa, USA
Nankali Maksud, UNICEF, Malawi
Brendan Ross, UNICEF, Somalia
Benjamin Omondi, Ujamaa, Kenya
Martin Ndirangu, Ujamaa Pamodzi, Malawi

Sexual Violence Research Initiative Forum
September 20, 2017
GBV Profile for Malawi Adolescents

• 27% of 15-19 year old ever married/cohabitating women have experienced physical or sexual intimate partner violence (IPV; Malawi DHS 2010)

• 1 in 5 girls are sexually abused before the age of 18 (Malawi UNICEF VAC, 2013)
  • Key perpetrators include partners, classmates and other known individuals

• Sexual assault puts girls at risk for contraceptive and condom nonuse, unintended pregnancy, STIs, decreased control in future relationships, and poor mental health.
• Ujamaa Pamodzi-Africa is a Non-Governmental Organization in Malawi

• For the past six years Ujamaa Africa has been working with No Means No Worldwide (NMNW) to teach Girl’s Empowerment and Boy’s Transformation programs, with primary aim of reducing cases of sexual assault against girls and women and reduce cases of teenage girls school dropout related to early marriage and teenage pregnancy

• In Kenya, this comprehensive approach has proven highly successful in reducing sexual assault and pregnancy-related school dropout

• This study evaluates the impact of Girls Empowerment in Malawi, compared with a control arm consisting of Life Skills education
**IMPower: Girls Self-Defense Training and Empowerment**

- **IMPower** consists of self empowerment, self efficacy and self defense
- Emphasis on Verbal Skills (using the voice), Boundary Setting, Negotiation, Warning for Consequence, Naming the Behavior, and Yelling
- Primarily verbal, incorporates physical only when necessary (85: 15)
- **Fight only if it is the last and best option**
- 12 hours of interactive empowerment instruction for girls and young women
- Empowers girls to master a wide range of abuse avoidance techniques
Methods

- Implementation districts selected for geography and heterogeneity, and as priority settings for UNICEF's Safe Schools Program
- Within district, schools were matched by size and randomized to intervention or control condition at the school level to limit contamination
- Students randomly selected for participation using the bead method
- Self-reported data collected via ballot box to maximize confidentiality; instructors read aloud survey items
Analysis

• 10.5 month follow-up to assess:
  • Sexual violence
    • Knowledge of self defense
    • Confidence
    • Disclosure

• Exclusion criteria:
  • Schools that were not followed up
  • Students at follow-up who stated they had not previously participated in a class
  • Class 8 and Form 4 students due to loss to follow up upon graduation

• Collapsed baseline and follow-up data by school to obtain means and counts, appended into aggregate school-level data dataset

• Performed Poisson regression with cluster-correlated robust estimate of variance in STATA
Trial CONSORT

**Enrollment**

k=151 Schools Selected for Study (n=7,832)

**Allocation**

k=77 Allocated to intervention and completed baseline survey (n=3,812)

k=74 Allocated to control and completed baseline survey (n=4,020)

**Intervention**

Received IMPower intervention (n=3,812)

No intervention delivery, students at these schools received standard Lifeskills curriculum (n=4,020)

**Follow-up after 10.5 months**

Lost to follow-up:
- Graduation from Class 8 (n=224)
- Graduation from Form 4 (n=200)
- Schools not followed up (k=5, n=140)

Lost to follow-up:
- Graduation from Class 8 (n=246)
- Graduation from Form 4 (n=131)
- Schools not followed up (k=5, n=247)

**Analysis**

k=72 Schools Follow-up (n=2,195)

k=69 Schools Follow-up (n=2,083)

**k=141 Schools Analyzed Baseline (n=6,644)**

**k=141 Schools Analyzed Follow-up (n=4,278)**
Past-Year Prevalence of Forced Sex: Significant Reduction

**Intervention Control**

Baseline

- **Rate Ratio** = 0.59
- **p** < 0.001

Follow Up

- **Rate Ratio** = 1.04
- **p** = 0.59

*Rate ratios adjusted for school size*

*Difference intervention v. control groups at baseline: p=0.41, follow up: p<0.001*
Results: By School Level

Primary

- Intervention: 13.0% (p=0.002)
- Control: 7.5%

Intervention Effect:
- Rate Ratio=0.58 (p<0.001)
- Rate Ratio=0.97 (p=0.78)

Secondary

- Intervention: 22.7%
- Control: 15.1%

Intervention Effect:
- Rate Ratio=0.70 (p=0.01)
- Rate Ratio=1.13 (p=0.51)

Notes:
1. Rate ratios adjusted for school size
2. Primary difference intervention v. control groups at baseline: p=0.62, follow up: p=0.001
3. Secondary difference intervention v. control groups at baseline: p=0.62, follow up: p=0.06
Results: By District

Lilongwe

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th>Intervention Effect</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>16.0%</td>
<td>15.7%</td>
<td>7.9%</td>
<td>p=0.004</td>
</tr>
</tbody>
</table>

Intervention Effect

Dedza

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th>Intervention Effect</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>17.5%</td>
<td>16.0%</td>
<td>12.1%</td>
<td>p=0.23</td>
</tr>
</tbody>
</table>

Intervention Effect

Salima

<table>
<thead>
<tr>
<th></th>
<th>Intervention</th>
<th>Control</th>
<th>Intervention Effect</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>13.2%</td>
<td>13.0%</td>
<td>9.6%</td>
<td>p=0.02</td>
</tr>
</tbody>
</table>

Intervention Effect

1 Rate ratios adjusted for school size
2 Lilongwe difference intervention v. control groups at baseline: p=0.91, follow up: p=0.01
3 Dedza difference intervention v. control groups at baseline: p=0.85, follow up: p=0.05
4 Dedza difference intervention v. control groups at baseline: p=0.30, follow up: p=0.16
Knowledge of Self-Defense: Significant Increase

Rate ratios adjusted for school size

Maximum knowledge calculated as answering two questions correctly: “What is the aim of self defense?” and “How do you free yourself if attacked by a bigger man?”

Difference intervention v. control groups at baseline: p<0.001, follow up: p<0.001
Sexual Violence Disclosure, Among Those Who Experienced Violence: Increased in both intervention & control arms

Intervention Effect
p=0.50

Intervention
Rate Ratio=1.14
p=0.007

Control
Rate Ratio=1.10
p=0.02

1 Rate ratios adjusted for school size
2 Difference intervention v. control groups at baseline: p=0.21, follow up: p=0.01
Sexual Violence Perpetrators: Primarily boyfriends & other known individuals

1 Among those who experienced violence
2 Results at baseline
Summary

- IMPower self-defense training reduced sexual violence prevalence among young women in Malawi, relative to control arm participants
  - Significant improvements in self-defense knowledge
  - Increased disclosure of sexual violence in both arms
  - Boyfriends are key perpetrators

- Results similar to findings from densely populated urban slum communities of Nairobi, Kenya
  - Effectiveness of intervention persists across diverse districts in Malawi

- Some contrast with incidence data

- Level of sexual violence in young school-age women demonstrates ongoing needs for prevention and support
Limitations

- School-level data limits ability to understand individual-level changes including explanatory pathways
- Movement on sexual violence incidence less clear
- Self-reported data can be challenging for the youngest students
- Lack of demographic data collected in order to protect anonymity
- Relative short follow-up time
- Exclusion of young men
Conclusions and Next Steps

• Self-defense training effective in building knowledge and preventing sexual violence in primary and secondary schools alike

• Results support scale-up of empowerment self-defense training for addressing sexual violence

• Need to understand how IMPower program effects on other health outcomes related to empowerment, including early pregnancy, STI/HIV risk, and early marriage

• Connection with trauma-informed, youth-friendly support is critical for survivors

• Engagement with boys, addressing both perpetration and intervention by bystanders necessary for a comprehensive approach
Please contact presenter for updated citation info as needed:

Shannon Wood
Johns Hopkins University, USA
swood@jhu.edu