Girls First - India

May 2015
Development starts inside.

Fostering resilience is key to helping people thrive, yet is rarely included in development programs designed to improve well-being and reduce poverty.
“No one ever told us we had strengths.”

-- Girls First Participant
Bihar, India

Girls First builds resilience and self-confidence in marginalized girls, empowering them to achieve their potential despite difficult circumstances.
Resilience is the ability to bounce back from difficulties in life. Resilience improves all other outcomes.
Girls First is an evidence-based empowerment program that targets girls, aged 12-16 in India.

The program is developed by CorStone, a US-based 501c3 nonprofit.

Research confirms that Girls First’s resilience-based approach improves mental health, physical health, and education.
# Girls First Curriculum

<table>
<thead>
<tr>
<th>Session</th>
<th>Emotional Resilience</th>
<th>Session</th>
<th>Adolescent Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Introduction and setting group guidelines</td>
<td>1</td>
<td>Introduction</td>
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<tr>
<td>2</td>
<td>Listening skills</td>
<td>2</td>
<td>The health system</td>
</tr>
<tr>
<td>3-4</td>
<td>Character strengths</td>
<td>3-4</td>
<td>Nutrition and anemia</td>
</tr>
<tr>
<td>5-6</td>
<td>Life stories and planning to reach our goals</td>
<td>5-6</td>
<td>Water, sanitation and key health issues</td>
</tr>
<tr>
<td>7-8</td>
<td>Identifying emotions &amp; emotional awareness</td>
<td>7</td>
<td>Diarrhea and diarrhea management</td>
</tr>
<tr>
<td>9</td>
<td>Managing strong emotions (I)</td>
<td>8</td>
<td>Review</td>
</tr>
<tr>
<td>10</td>
<td>Benefit finding</td>
<td>9-10</td>
<td>Gender constructs</td>
</tr>
<tr>
<td>11</td>
<td>Managing strong emotions (II)</td>
<td>11</td>
<td>Know your body</td>
</tr>
<tr>
<td>12</td>
<td>Assertive communication</td>
<td>12</td>
<td>The reproductive system</td>
</tr>
<tr>
<td>13</td>
<td>Restorative practices for conflict resolution</td>
<td>13</td>
<td>Menstruation and hygiene</td>
</tr>
<tr>
<td>14</td>
<td>Group problem solving</td>
<td>14</td>
<td>My relationships</td>
</tr>
<tr>
<td>15</td>
<td>Identifying and opposing violence</td>
<td>15</td>
<td>Intimate relationships</td>
</tr>
<tr>
<td>16</td>
<td>Forgiveness and apologies</td>
<td>16</td>
<td>Physical intimacy</td>
</tr>
<tr>
<td>17</td>
<td>Self-esteem and character strengths</td>
<td>17</td>
<td>Gender based violence</td>
</tr>
<tr>
<td>18</td>
<td>Problem solving with a focus on friendships</td>
<td>18</td>
<td>Understanding and promoting rights</td>
</tr>
<tr>
<td>19-20</td>
<td>Peace project</td>
<td>19</td>
<td>Substance use and abuse</td>
</tr>
<tr>
<td>21</td>
<td>Review and celebrate</td>
<td>20</td>
<td>Review and celebrate</td>
</tr>
</tbody>
</table>
Train-the-Trainer Model

Local women and school teachers are trained as Program Facilitators. Community partnerships are integral to success.
“If I don’t present my point of view courageously, and I simply agree to what others are saying, then I will become weak. If I don’t show perseverance towards my goal, then I will lose sight of it.”

-- Girls First Participant
Bihar, India
Girls First - Bihar: Groundbreaking Research

• In 2013-14, CorStone conducted first-of-its-kind randomized controlled trial (RCT) in Bihar, India*

• 3,500 adolescent girls in 76 schools completed group sessions

3 intervention arms and 1 control arm:

- Emotional Resilience only (ER)
- Adolescent Health only (AH)
- Emotional Resilience + Adolescent Health (ER + AH)
- School-as-usual control (SC; no intervention)

• 15-20 girls per group
• Meet 1-2 times per week for 1 hour
• 6-8 month program
• 2 Program Facilitators per group

* With support from David & Lucile Packard Foundation
## Assessment Framework

### Quantitative

<table>
<thead>
<tr>
<th>Impact area</th>
<th>Key Outcomes</th>
<th>Assessment tools (Examples)</th>
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</thead>
<tbody>
<tr>
<td>Mental/emotional</td>
<td>• Resilience</td>
<td>• Connor-Davidson Resilience Scale-10</td>
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<tr>
<td>wellbeing</td>
<td>• Self-efficacy</td>
<td>• General Self-Efficacy Scale</td>
</tr>
<tr>
<td></td>
<td>• Psychological wellbeing</td>
<td>• KIDSCREEN Psychological Wellbeing subscale</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Patient Health Questionnaire-9; GAD-7</td>
</tr>
<tr>
<td>Physical wellbeing</td>
<td>• Health knowledge</td>
<td>• Survey instrument developed in part from:</td>
</tr>
<tr>
<td></td>
<td>• Health-related behaviors</td>
<td>• General self-report of health</td>
</tr>
<tr>
<td></td>
<td>• Health/gender attitudes</td>
<td>• Indian Adolescent Health Questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• KIDSCREEN Physical Wellbeing subscale</td>
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<tr>
<td>Social wellbeing</td>
<td>• Social skills</td>
<td>• Relevant Child and Youth Resilience Measure subscales</td>
</tr>
<tr>
<td></td>
<td>• Social relationships (peers; family)</td>
<td>• KIDSCREEN Social Wellbeing subscale</td>
</tr>
<tr>
<td>Academic wellbeing</td>
<td>• School engagement</td>
<td>• School records; survey instrument</td>
</tr>
<tr>
<td></td>
<td>• Perceived safety at school</td>
<td>• Child and Youth Resilience Measure Education Subscale</td>
</tr>
</tbody>
</table>

### Qualitative

- Semi-structured individual interviews and focus group discussions (FGDs)
- Interview and FGD guides mirrored quantitative assessments; targeted in-depth descriptions of experiences and views
Key quantitative findings

Note: A technical summary of the Difference-in-Difference OLS Regression methods and results can be found in the Appendix.
Girls who received ER (through ER+AH or ER) significantly improved their resilience vs. controls. Girls in AH did not significantly improve vs. controls.
Schwarzer’s General Self-efficacy Scale

Pre to post test changes

What it measures
- Self-efficacy’ or belief in ability to succeed and have an impact on one’s own life trajectory

Greater scores indicate greater self-efficacy

Note: Asterisks denote significant differences vs. control (SC), through DiD OLS regression analyses including demographic covariates. *** p < 0.001, ** p < 0.01, * p < 0.05

ER has a protective and promotive effect: Self-efficacy increased for girls who received ER, while it decreased for girls who didn’t receive ER.
Health Knowledge

Pre to post test changes

What it measures
- Knowledge of physical health facts:
  - Nutrition
  - Safe water
  - Common diseases
  - Reproductive/Sexual Health etc.

Adding ER improves health knowledge: ER+AH achieved significantly greater health knowledge increases than AH from the same amount of direct instruction on health.

Note: Asterisks denote significant differences vs. control (SC), through DiD OLS regression analyses including demographic covariates. *** p < 0.001, ** p < 0.01, * p < 0.05
Gender Attitudes

Adding ER improves gender attitudes: ER+AH had a significantly greater effect despite the same amount of direct instruction about gender differences and women’s rights.

What it measures
- Girls rate agreement on statements like:
  1. “It is equally important for girls and boys to attend school.”
  2. “It is ideal for a woman to have her first child before age 18.”
  3. “There are times when a woman deserves to be beaten.”

Higher scores indicate greater equality in attitudes

Note: Asterisks denote significant differences vs. control (SC), through DiD OLS regression analyses including demographic covariates. *** p < 0.001, ** p < 0.01, * p < 0.05

Gender Attitudes Scale (adapted from GEMS)
Clean Water Behaviors

Adding ER improves water behaviors: ER+AH achieved significantly better clean water behavior than AH from the same amount of direct instruction on keeping water clean.

Pre to post test changes

What it measures
- Girls are asked how they keep their water clean at home, including:
  - Filtering
  - Boiling
  - Chlorinating
  - Taking water directly from well (etc.)

Score is computed by adding whether she performs behaviors proven to keep water clean (filtering, boiling, chlorinating)

Note: Asterisks denote significant differences vs. control (SC), through DiD OLS regression analyses including demographic covariates. *** p < 0.001, ** p < 0.01, * p < 0.05
Adding ER to AH improves girls’ ability to access healthcare when needed, despite receiving the same amount of instruction on the health system, common diseases, etc.

What it measures
- Girls are asked how often they are able to get to a clinic or hospital when they need to see a doctor.

Health access item; 5-point likert scale

Note: Asterisks denote significant differences vs. control (SC), through DiD OLS regression analyses including demographic covariates. *** p < 0.001, ** p < 0.01, * p < 0.05
Key qualitative findings
“One of my sisters was getting married and she was not even 18 years of age. She did not want this. I convinced my papa that he should wait. I said, ‘Let her finish her tenth grade exams and then she can marry.’ He agreed.”

-- Girls First Participant
Bihar, India

**Ripple effect:** Girls First participants encouraged girls to stop early marriage, advocate for their education and health rights, and confront harassment.
Early Marriage: Attitudes

• Girls in all intervention arms were adamant that they will not get married until age 18 or after.

• However, those in arms that received resilience training emphasized *why this is important to them*.
  • They stressed their *goals*, their *dedication* to achieving them, and the *steps* they will take to achieve them and convince their parents before they get married.
  • They thought specifically about how they will talk to their parents or others involved in any early marriage proposal (or have already done so), and what will prepare them to do so.
  • They have already thought of backup plans.
Interviewer: If you are presented with a marriage proposal then how will you handle it? What qualities can you use to share your point of view with others?

Girl: Courage, perseverance, and affection. These are very beneficial qualities. It is obvious that if I don’t speak affectionately then my mother won’t like it. If I don’t present my point of view courageously and simply agree to what others are saying then I will become weak. If I don’t show perseverance towards my goal then I will lose sight of it.

Girls thought specifically about how they will oppose early marriage—using the character strengths they learned about in the program.
Safety issues: ‘Eve-teasing’ (harassment)

• How do girls handle eve-teasing and safety concerns?
  • Almost every girl had a story about eve-teasing or a safety concern with a boy
  • Girls who had gone through any intervention arm were clear that this is against their rights
  • In particular, girls who received the ER program drew on their strengths to oppose it—and used group support to solve the problem
  • Similarly to dealing with early marriage concerns, girls used multiple types of skills learned in group to solve their problems and stay safe
“When I was sharing in the group I realized that problems become easier when they are shared. That is why I decided not to get scared when he threatens me. If he can threaten me just because he is a boy and I am a girl, I can seek help from the people around me because molesting a girl is a legal offense. I can get help for this.”

-- Girls First Participant
Bihar, India

Girls who received resilience training drew on their strengths and group support to oppose harassment.
Social Bonds: Peer Relations

• How have girls’ relationships changed or strengthened?
  • Many relationships are stronger and girls feel more accepting of different ways of life and people
  • Girls are consistently influencing others to improve their health, education, resilience, and attitudes
  • Many girls have set goals to continue helping people improve their health and education as their career (i.e., becoming teachers, doctors, social workers, etc.)
Many girls continue to meet in groups even after the program ends. They continue to grow stronger and healthier.

**Girl:** Before the training many girls would not talk to me but studying [in Girls First] together many of the girls started talking to me.... Earlier even I would not talk to them.... [Now I] talk to everyone...even the small kids.... They all teach me something and I too teach them.... What I do not know, they do, and what they do not know, I do....

**Interviewer:** So were you doing this before the [Girls First] training?

**Girl:** No....

**Interviewer:** But the training has stopped. Do you still...discuss in groups?

**Girl:** Yes.
Thank you.

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Appendix: Difference-in-Difference OLS Regression Results
Girls First – Bihar: Study Design

<table>
<thead>
<tr>
<th>Arm 1: ER+AH</th>
<th>Intervention</th>
<th>ER sessions</th>
<th>AH sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments</td>
<td>T1</td>
<td>T2</td>
<td>T3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm 2: ER</th>
<th>Intervention</th>
<th>ER sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments</td>
<td>T1</td>
<td>T2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm 3: AH</th>
<th>Intervention</th>
<th>AH sessions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments</td>
<td>T1</td>
<td>T2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arm 4: SC</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments</td>
<td>T1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
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<tbody>
<tr>
<td>School Term 1</td>
<td>School Term 2</td>
</tr>
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Legend: ER = Emotional Resilience, AH = Adolescent Health, SC = School-as-usual Control
Assessments - 4 time periods: T1 = Time 1, T2 = Time 2, T3 = Time 3, T4 = Time 4
Girls First: Girl Participant Profile

Note that these means are calculated at baseline.
Girls First: Girl Participant Profile

Note that these %’s are calculated at baseline.
Covariates Included in Analysis

For the modeling, we controlled for independent variables at the individual (girl) and school level which could also explain/influence outcomes, especially those which varied across arms at baseline. Covariates differ slightly depending on the outcome variable, but the following list contains those included in most analyses.

**Individual Level**
- Age
- Parents’ education
- Assets (owns TV, vehicle, etc.)
- Home density (# people/room at home)
- Ever vaccinated (for health outcomes)

**School Level**
- School location (Block/district)
- Student-teacher ratio
- School flooding
Use of Difference-in-Difference OLS Regression Estimation

Unadjusted

\[ y_i = \beta_{0i} + \sum_j \beta_{1i,j} \text{intervention}_{i,j} + \sum_k \beta_{2i,k} \text{time}_{i,k} \]
\[ + \sum_k \beta_{3i,j,k} \text{time}_{i,k} * \text{intervention}_{i,j} + \varepsilon_i \]

Adjusted for Co-variates

\[ y_i = \beta_{0i} + \sum_j \beta_{1i,j} \text{intervention}_{i,j} + \sum_k \beta_{2i,k} \text{time}_{i,k} \]
\[ + \sum_k \beta_{3i,j,k} \text{time}_{i,k} * \text{intervention}_{i,j} \]
\[ + \sum_i \beta_{4i,k} X_{i,k} + \sum_k \beta_{5,k,t} Y_{i,k,t} + \varepsilon_i \]

where \( X_{i,k} \) is time-invariant characteristics

\( Y_{i,k,t} \) is time-variant characteristics
## D-in-D OLS Estimates (Adjusted for Covariates)

<table>
<thead>
<tr>
<th></th>
<th>Emotional resilience</th>
<th>Self-efficacy</th>
<th>Health knowledge</th>
<th>Gender attitudes</th>
<th>Clean water behaviors</th>
<th>Ability to get to clinic or hospital</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Time</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time 2 (T2)</td>
<td>0.673</td>
<td>-2.095***</td>
<td>-0.597**</td>
<td>1.061**</td>
<td>0.106*</td>
<td>0.023</td>
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<tr>
<td>Time 3 (T3)</td>
<td>0.826*</td>
<td>-1.409***</td>
<td>-1.096***</td>
<td>-0.493</td>
<td>0.159**</td>
<td>0.203*</td>
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<tr>
<td><strong>Intervention</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>ER</td>
<td>0.526</td>
<td>0.343</td>
<td>0.290</td>
<td>0.268</td>
<td>-0.032</td>
<td>-0.188*</td>
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<tr>
<td>AH</td>
<td>2.654***</td>
<td>1.737***</td>
<td>0.272</td>
<td>1.092**</td>
<td>0.105*</td>
<td>0.244**</td>
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<tr>
<td>ER+AH</td>
<td>-1.801***</td>
<td>-1.305***</td>
<td>-0.315</td>
<td>-0.806*</td>
<td>-0.094*</td>
<td>-0.263**</td>
</tr>
<tr>
<td><strong>Time x Intervention</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post (T2) x ER</td>
<td>3.259***</td>
<td>2.979***</td>
<td>0.180</td>
<td>1.185*</td>
<td>0.013</td>
<td>0.286*</td>
</tr>
<tr>
<td>Post (T2) x AH</td>
<td>0.312</td>
<td>1.510**</td>
<td>4.216***</td>
<td>1.100*</td>
<td>0.206**</td>
<td>-0.018</td>
</tr>
<tr>
<td>Post (T3) x ER+AH</td>
<td>5.603***</td>
<td>3.995***</td>
<td>5.114***</td>
<td>4.602***</td>
<td>0.352***</td>
<td>0.409**</td>
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<tr>
<td><strong>Constant</strong></td>
<td>12.660</td>
<td>31.98***</td>
<td>1.780***</td>
<td>23.840***</td>
<td>0.693***</td>
<td>3.215***</td>
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</table>

*Note: * p < 0.05, ** p < 0.01, *** p < 0.001*
 Connor-Davidson Resilience Scale (CD-RISC)

Emotional Resilience Pre and Post Means

- ER+AH
- AH
- ER
- SC

Emotional Resilience DiD: Post x Intervention

- ER+AH vs. SC
- AH vs. SC
- ER vs. SC

No statistically significant difference
Schwarzer’s General Self-efficacy Scale

**Self-efficacy Pre and Post Means**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER+AH</td>
<td>28</td>
<td>31</td>
</tr>
<tr>
<td>AH</td>
<td>31</td>
<td>32</td>
</tr>
<tr>
<td>ER</td>
<td>30</td>
<td>33</td>
</tr>
<tr>
<td>SC</td>
<td>29</td>
<td>28</td>
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**Self-efficacy DiD: Post x Intervention**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>DiD</th>
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<tbody>
<tr>
<td>ER+AH vs. SC</td>
<td>4.0</td>
</tr>
<tr>
<td>AH vs. SC</td>
<td>1.0</td>
</tr>
<tr>
<td>ER vs. SC</td>
<td>3.0</td>
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</tbody>
</table>

CorStone
14-point test of knowledge

Health knowledge Pre and Post Means

Health knowledge DiD: Post x Intervention

No statistically significant difference
Gender Attitudes Scale (adapted from GEMS)
Clean water behaviors Pre and Post Means

Clean water behaviors DiD: Post x Intervention

No statistically significant difference

Clean water item; 6 clean water behaviors
Health access item; 5-point likert scale