CorStone

Children's Resiliency Program for Girls in India (CRPG)

Summary of Research Findings

October 24, 2011

Steve Leventhal
Executive Director
415.388.6161
stevel@corstone.org

Kate Sachs
Program Associate
415.388.6161
kates@corstone.org

Table of Contents

1 Executive Summary

CorStone's Children's Resiliency Program for Girls (CRPG) broadly promotes resiliency in high-poverty adolescent girls in the face of challenge or crisis. The program focuses on (a) developing adolescents' internal assets (personal characteristics or skills) such as emotional competence, problem-solving, and social skills, and (b) promoting external assets of resiliency (environmental or contextual supports), by emphasizing social support and the development of a positive social culture.

In delivering the CRPG, CorStone has used an effective and cost-efficient "train-the-trainer" approach, in which local community workers complete a 5-day intensive training as 'Program Facilitators' to implement the program's 20-session curriculum with adolescent girls using a peer support group model. Curriculum content has been developed in collaboration with leading US academics and mental health practitioners, as well as local partners in India and has been tested for cultural relevance and sensitivity.

In Phase I of the CRPG (2009), CorStone pilot tested the program curriculum and delivery model over a 6-month period with nearly 100 low-income Muslim girls at the Hope Project School in a New Delhi slum. Female teachers from the Hope Project (including many women from high-poverty backgrounds) were trained in content and support group facilitation methods to deliver the program among girls at the school. Independently administered impact assessments using internationally recognized and validated standardized tools, as well as qualitative feedback from teachers and students, demonstrated statistically significant improvements along multiple mental and emotional health indicators (full report available here).

In Phase II of the CRPG (2011), CorStone launched a 3-month multi-site implementation for 1,000 high-poverty Dalit ('untouchable' caste) adolescent girls living in urban slums in the city of Surat, Gujarat. The program was implemented in partnership with the local Federation of Slum-dweller Women. Girls from over 20 slums participated in the program. Five hundred girls participated in the intervention, while 500 girls served as a randomized control. Baseline, midpoint and endpoint evaluations were conducted by Sangath, an internationally renowned India-based mental and behavioral health research organization, using a mix of standardized instruments and semi-structured interviews. **Girls who participated in the program showed significant improvements on a multiple indicators spanning mental health, social skills, and behavioral difficulties, including a large rise in normal mental and behavioral health scores and a sharp drop in pessimism scores.**

This grant report details activities, research outcomes and learning for future program improvement during Phase II of the program.

2   CRPG – Program Implementation

From October 2010 to October 2011, CorStone implemented a randomized trial of the Children's Resiliency Program for Girls (CRPG) in India among approximately 1,000 girls living in urban slum conditions in Surat, Gujarat (approximately 500 girls in the control group and 500 in the intervention group).

Twelve government schools were initially selected in Surat to be part of the program. This initial selection was pared down to four government schools following local input from the Surat slum community and advice from the independent evaluator (Sangath). While CorStone initially proposed to conduct the program in non-profit schools, on the advice of Sangath government schools were selected for purposes of ensuring better randomization. In addition, by implementing the program in government schools, which are typically attended by the lowest income populations, we were better able to ensure that the intervention was conducted among a truer representation of school-attending slum dwellers. In particular, for the purposes of appropriate matching and randomization, Sangath advised using only four larger government schools so that the populations could be accurately matched in terms of kind of school (co-ed or only girls), language of instruction (Marathi or Gujarati), location (proximity to slums), and number of girls ages 12-16 years available in the schools. Students from two schools participated in the intervention arm and students from two other schools participated in the control arm. Table 1, below, gives details of the participants at the intervention and control sites.

Table 1: Intervention and Control Sites

	School	# student participants	Grade	Type of school	Co-ed /same gender	Medium of instruction
Intervention Schools						
1	Sarvajanik High School	372	8th	Semi-government	Co-ed	Marathi
2	Sarajini Babar Primary School	60	7th	Government	Co-ed	Marathi
	Total Intervention Participants	**432**				
Control Schools						
1	Suman High School	318	8th	Government	Co-ed	Marathi
2	Saint Bahinabai School No. 47	133	7th	Government	Co-ed	Marathi
	Total Control Participants	**451**				
	Total Participants	**883**				

CorStone used an innovative train-the-trainer delivery model to implement the CRPG. To facilitate the program with the girls, we began by training and pairing women from the slum communities with local Master's degree candidates who lived in Surat (but outside the slums) to co-facilitate the groups as a team. In late January 2011, CorStone conducted a five day facilitator training with approximately 60 women in Surat, including 30 slum-dwelling women and 30 local women who were completing their Master's programs in counseling. This design allowed slum-dwelling facilitators and Master's student facilitators to combine their strengths: the slum-dwelling facilitators provided cultural knowledge and connections with the children, while the Master's student facilitators provided curriculum adherence oversight and counseling expertise. Of these facilitator pairs, 18 were selected to facilitate the program. Each of the 18 facilitation pairs facilitated two groups, twice per week, such that 36 groups of approximately 12 girls each went through the program over the course of 12 weeks.

The months of January to April 2011 were spent in careful planning and school randomization processes, as described above. The 20-session program (17 curriculum sessions plus 3 assessments) was delivered with about two sessions per week starting shortly thereafter. Though the program had been delivered once per week over a six month period in Phase I, this time, using a twice per week program, CorStone delivered the program in only three months, thereby decreasing the "dosage" time of the intervention to test the efficacy of a 12-week program.

3   Program Results

3.1   Key Findings – Overview

Research partner Sangath was responsible for appropriate randomization and matching of prospective schools as well as all baseline, midpoint, and endpoint data collection and analysis. Sangath collected and analyzed all quantitative data. Sangath collected qualitative data at midpoint and endpoint, and CorStone collected additional qualitative data at endpoint.

Sangath administered baseline, midpoint and endpoint assessments at weeks 1, 6, and 12 respectively using two well-known quantitative study instruments (Strengths and Difficulties Questionnaire and Youth Life Orientation Test) to assess mental health, social skills and behavioral difficulties among the girls participating in the intervention and the girls in the control schools. The endpoint assessment showed strong quantitative differences between the baseline and endpoint scores across mental, behavioral, and social indicators for girls who had attended the program.

Facilitators were able to successfully cover all topics of the curriculum during the 12-week program and students and facilitators alike were able to demonstrate significant knowledge of the topics after the intervention ended. Girls reported positive impact on their lives, including that they had noticed that there was less aggression and fewer fights at school and that they had been able to apply lessons learned in the program to reduce their anxiety levels and improve their own social-emotional functioning. Facilitators reported positive impact on the girls as well, reporting that the girls became better able to control their anger, were less shy, looked happier, and learned to listen to others.

Facilitators, students and slum community leaders all saw significant value in the program and have requested that the program be run again, this time in a community-based rather than school-based format. A community-based program would not only improve attendance for the program as girls could be accessed directly in the community and on their own schedules, but would also allow the program to reach an even more at-risk segment of girls: girls who are not in school due to poverty, unwillingness of their parents to educate their daughters, child marriage, or other reasons. This population is very large, as 61% of girls ages 6-16 in a given year drop out of school and only 47.5% of girls ages 6-16 are in school at any given time in the state of Gujarat.[1]

3.2   Main Outcomes of Quantitative Analysis

Sangath assessed the program's effect on the girls with two quantitative scales widely-used in global mental health: the Strengths and Difficulties Questionnaire (SDQ) and the Youth Life Orientation Test (YLOT).

---

[1] Data from www.girlsdiscovered.org

- The Strengths and Difficulties Questionnaire (SDQ) is a behavioral screening questionnaire for 3-16 year olds. *"Before"* and *"After"* SDQs can be used to audit everyday practice (e.g. in clinics or special schools) and to evaluate specific interventions. Studies using the SDQ along with research interviews and clinical ratings have shown that the SDQ is sensitive to treatment effects. In community samples, multi-informant SDQs can predict the presence of a psychiatric disorder with good specificity and moderate sensitivity. The SDQ has been translated and used in several countries and has been validated in developing settings. A child's score on the SDQ can be considered normal, abnormal, or borderline.

- The YLOT is a 14 question test that measures optimism and pessimism. It has been used successfully to measure youth emotional symptoms in many countries worldwide.

3.2.1 Strengths and Difficulties Questionnaire

The most salient results of the SDQ endpoint data analysis were in (a) the participants' overall scores before and after the intervention as compared to the control group and, (b) pre- and post-intervention scores broken down by session attendance. Overall, student self-reports showed statistically significant improvements (X^2 = (4, N=385) = 16.147, 0.003). **In the baseline evaluation, only about 66% of children who went through the program scored in the normal range on the SDQ. In the endpoint, however, almost 80% scored in the normal range, and the percentage of girls scoring in the borderline range dropped from 22.3% to 8.8%.** Compared to the control group of 434 girls who did not receive the intervention, this change is

Figure 1: Self-reported SDQ scores
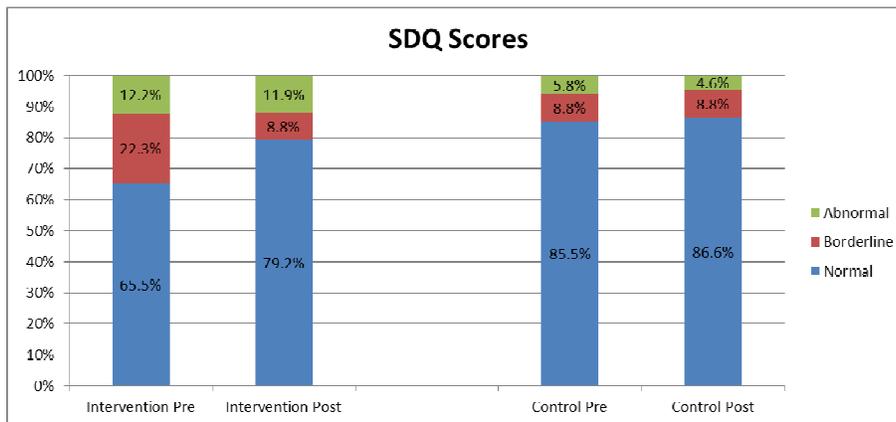
even more pronounced. The control group's baseline and endpoint scores show negligible change; about 86% of girls scored in the normal range at baseline, which remained fairly static at endpoint at 87%. The percentage of girls in the control group scoring in the borderline range at baseline (8.8%) was unchanged at endpoint. Figure 1: Self-reported SDQ scores, above, and Table 2: Pre and post intervention SDQ scores, below, summarize these results.

Table 2: Pre and post intervention SDQ scores

Categories of SDQ	NO. OF STUDENTS IN EACH CATEGORY of SDQ (in %)			
	Intervention Group		Control Group	
	Pre	Post	Pre	Post
Normal	65.5	79.2	85.5	86.6
Borderline	22.3	8.8	8.8	8.8
Abnormal	12.2	11.9	5.8	4.6
	(X^2 = (4, N=385) = 16.147, 0.03)*		(X^2 = (4, N=434) = 6.719, 0.152)	

*= 0.05 significance level

When the SDQ results are broken down further by attendance, an even more compelling picture emerges. Girls who attended 7-13 sessions saw a greater increase in normal scores (*52.8% normal at baseline to 74.1% normal at endpoint, a 21.3 percentage point increase and a 40% overall increase*),

than those who attended 13 or more sessions (*70.3% at baseline to 82.5% at endpoint, a 12.2 percentage point increase and a 17% overall increase*). However, girls who had good attendance also had a greater percentage of normal scores at baseline and at endpoint than girls with average attendance (see Figure 2 and Table 3, below).
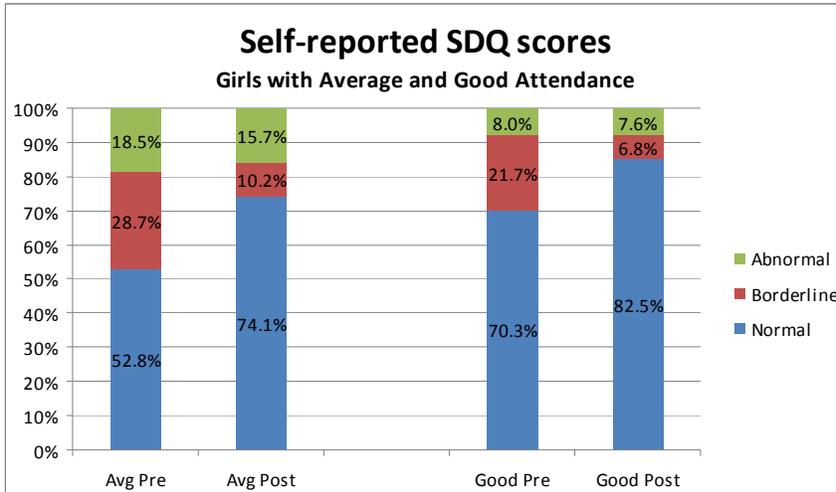

Figure 2: SDQ scores by attendance.
"Average" attendance = 7-13 sessions. "Good" Attendance = 13 or more sessions.

Table 3: SDQ scores by attendance

NO. OF STUDENTS IN EACH CATEGORY of SDQ (in %)						
Attendance	**Poor**		**Average**		**Good**	
Categories of SDQ	Pre	Post	Pre	Post	Pre	Post
Normal	71.4	42.9	52.8	74.1	70.3	82.5
Borderline	3.6	21.4	28.7	10.2	21.7	6.8
Abnormal	25.0	35.7	18.5[2]	15.7	8.0[3]	7.6
	$(X^2 = (4, N=28) = 1.760, 0.780)$		$(X^2 = (4, N=108) = 6.407, 0.166)$		$(X^2 = (4, N=249) = 8.587, 0.072)$	

These findings may indicate that girls with higher ("normal") SDQ scores before the intervention are predisposed to attend more sessions. However, this disparity also suggests that **girls with slightly lower SDQ scores ("borderline" or "abnormal") at the beginning of the intervention – those who are having the most behavioral, mental and social health problems before the program – will receive the greatest improvement from the program.**

3.2.2 Youth Life Orientation Test (YLOT)

The most salient finding from the YLOT was that attendance significantly predicted scores across both optimism and pessimism scores: **girls who attended the sessions in greater frequency had greater improvements in optimism from baseline to endpoint (p<.05) and decreases in pessimism (p =.004) than girls who attended sessions less frequently.**
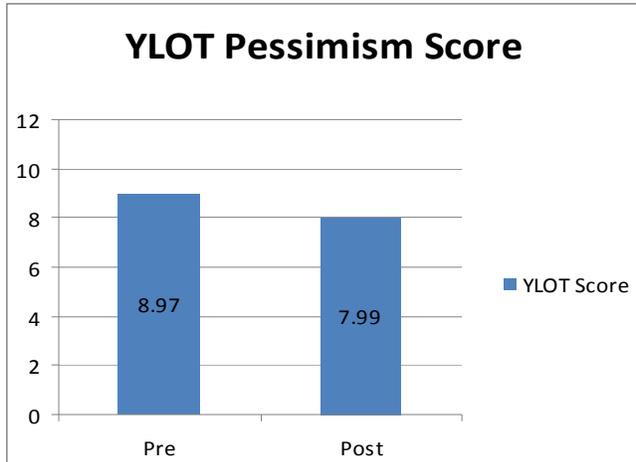
YLOT Pessimism Score

Figure 3: YLOT Pessimism Scores

One of the most drastic changes in the girls' scores occurred in pessimism levels, which was statistically significant. Girls' scores on the pessimism scale of the YLOT decreased substantially from baseline (M=8.97, SD=3.814) to endpoint (M=7.99, SD=3.766), t=3.669, p<0.00. See Figure 3 and Table 4 for these results.

Table 4: YLOT Scores

The Youth Life Orientation Test (YLOT) Summary Report				
	SUBSCALE PESSIMISM SCORE		SUBSCALE OPTIMISM SCORE	
	Pre-Intervention	Post-Intervention	Pre-Intervention	Post-Intervention
Mean	8.97	7.99	13.99	14.27
SD	3.814	3.766	2.876	2.948
	t value = 3.669 p<0.00 N=386		t value = -1.268 p>0.205 N=386	

Note: N= 386 of 428 who completed pre assessment also reported on post.

3.3 Main Outcomes of Qualitative Analysis

In addition to the standardized quantitative assessments, Sangath also conducted semi-structured interviews with 4 students and 10 facilitators at midpoint and 16 teachers, 6 facilitators and 4 school teachers at endpoint to gain insights into program feasibility, acceptance, and impact. CorStone also randomly chose four girls to interview after the program was completed (Appendix A: Sonal's Story presents the data gathered during one such interview). Lastly, CorStone conducted a semi-structured participatory data analysis session with approximately 25 facilitators upon the program's conclusion.

3.3.1 Effect on Girls

According to participants, facilitators and school teachers, the girls found high value in the program. When the program first began, participants were somewhat reluctant to share their feelings with others, but began to open up more as the program progressed. Facilitators felt that the behavior of the girls improved over the course of the sessions, as they noticed the girls became better able to control their anger, were less shy, looked generally happier, and learned to listen to others. The sessions that included learning games, in particular, worked very well with the girls.

Girl participants reported that they especially enjoyed the session on "character strengths" (the Positive Psychology component of the curriculum) and were able to list the personal strengths that they had identified and describe situations in which they used those strengths. Participants also reported that they found the sessions about friendship, forgiveness and managing their anger very relevant. As one

participant reported, *"Ever since the teacher taught us about friendship we behave well with each other. If anyone needs anything we give and we remain together."*

After going through the program, many girls described a newfound ability to avoid fights, and reported feeling more able to handle challenges in their lives such as physical health issues, mental health issues, school assignments and exams, conflicts with peers, siblings and parents, and crime and violence in their surroundings. As one girl commented, *"Ever since the teacher started taking sessions for us my confidence level of speaking in class has increased."*

This change was confirmed by school teachers, despite the fact that many of them did not know the purpose of the sessions. As one teacher said, *"The girls liked them [the sessions]. They used to wait for them to come. Otherwise, if we [school teachers] ask them to wait, they never wait after school hours! I think the program has benefited students. Now, some of the girls who never used to talk in class are coming forward; they ask questions, they have learned to speak."*

Girls and facilitators alike reported that the girls' parents were generally very supportive of their participation in the CRPG. Facilitators reported that they often heard parents say they wanted their child to continue attending the program because their daughter would not have a chance to learn about these very important topics elsewhere.

3.3.2 Facilitator Experience

In general, facilitators demonstrated competence with the material and gave well thought-out suggestions for program improvement (see Section 5: Program Challenges and Learning). Facilitators mentioned that they enjoyed being able to get to know each girl while conducting the sessions. In particular, the facilitators from outside the slums reported that they thought it had been very beneficial for them to learn about the lifestyle of slum children, which they had not known very well before.

All of the facilitators found that the training they received was well conducted and quite relevant to their own lives, remarking that they found a number of the concepts like listening and forgiveness to be "enlightening" and very useful in many of the situations they encounter on a daily basis.

3.4 Conclusion

Girls who participated in the program showed significant improvements on a number of quantitative mental health indicators, social skills indicators, and behavioral difficulties indicators. The results above indicate, specifically, a large rise in normal mental and behavioral health scores on the SDQ and a sharp drop in pessimism scores on the YLOT. YLOT scores were significantly correlated with attendance, such that if a girl attended more sessions, she was less pessimistic by the conclusion of the program. Results further suggest that girls who have a lower starting level of mental and behavioral health as measured by the SDQ may see the most significant changes from participating in the CorStone program despite the fact that they may be predisposed to attend fewer sessions.

Qualitative findings confirm that the program had a strong positive effect on participants and that the program was not only considered worthwhile by the girls and the facilitators, but also by the community and the parents of the girls. There is support for the program to continue and expand.

4 Key Implementation Activities and Timeline

Table 5, below, details the key implementation activities during the grant period, including details of expected and actual outcomes. As can be seen, nearly all facets of the program were conducted as planned.

Table 5: Key Implementation Activities

Date(s)	Activity	Expected outcomes	Actual outcomes
11/10 – 12/10	Curriculum development and planning	• Culturally appropriate curriculum developed and translated to Hindi, Marathi and Gujarati	• Culturally appropriate curriculum developed and translated to Hindi, Marathi and Gujarati
1/11	Facilitator Training	• 5 day training • Train 25 slum-dweller facilitators and 25 Master's student facilitators	• 5 day training • Trained ~30 slum-dweller facilitators and ~30 Master's student facilitators (18 pairs selected to facilitate program)
1/11 – 4/11	Planning and school selection	• 10 small non-profit schools vetted for the program and appropriately matched • 500 girls chosen for intervention arm and 500 chosen for control arm	• 12 government schools vetted for program, 4 large schools chosen and appropriately matched • 432 girls chosen and enrolled with consent for intervention arm and 451 girls chosen and enrolled with consent for control arm
5/11, 6/11, 8/11	Baseline, midpoint and endpoint data gathering (by Sangath, independent evaluator)	At weeks 1, 6, and 12: • Two quantitative scales administered (SDQ and YLOT) • Qualitative interviews conducted	At weeks 1, 6, and 12: • Two quantitative scales administered (SDQ and YLOT) • Qualitative interviews conducted
5/11 – 8/11	CRPG groups facilitated	• 50 groups of 10 girls each conducted • Group meetings approximately 2x/week for 12 weeks	• 36 groups of 12 girls each conducted • Group meetings approximately 2x/week for 12 weeks

5 Program Challenges and Learning

The program encountered several unanticipated implementation and research challenges.

Program implementation challenges included the following:

1) Unanticipated lack of space from the schools led to reduced program attendance by the girls
   Shortly after the CRPG implementation began, new laws were introduced in Surat that greatly increased the number of students in the government schools (the influx of students began after the fourth group session took place). The already under-resourced schools became even more

overwhelmed with students, forcing the schools to reclaim the rooms they had allocated to the CRPG during the school days. In response, the CRPG moved to after-school time slots, when space was available at the school for the group sessions. However, this created attendance problems for the girls as many had to leave directly from school to return home to perform household chores, or to attend other after-school activities. A surprising number of parents, however, continued to support their daughters' participation in the program despite the added inconvenience, with many girls noting in qualitative interviews that their parents very much supported their coming to the program because the topics were important and were not something that they could learn anywhere else. However, an additional obstacle arose when many parents deemed it unsafe for the girls to remain at the school for too long a period after the end of the school day. In response, several facilitators reduced the sessions from one hour down to half an hour per group, a duration that was inadequate to achieve maximum benefit of the curriculum for the girls.

2) <u>Translation problems due to multiple languages/dialects spoken by slum dwellers</u>
Translation became an issue in several groups during program implementation because of the high variance in languages and local dialects spoken by students and facilitators alike. Most slum dwellers are migrant laborers, who came to Surat from various states in search of employment. Though CorStone translated the program curriculum into all appropriate languages (Hindi, Marathi and Gujarati), some facilitators still noted that translating among a number of different languages during the program was quite difficult. In addition, facilitators from outside the slums sometimes spoke a different dialect than the girls from inside the slums. Facilitators from inside the slums were able to translate for the girls in these situations, though this setup was not ideal for optimum learning or communication. In the future, CorStone will seek to more carefully match facilitators and girls with the same dialect in each group.

3) <u>Implementing the CRPG as a school-based program rather than a community-based program</u>
Facilitators suggested that the program would function better in the community than in schools (this suggestion was echoed by leaders of the Federation of Women Slum Dwellers as well). Not only would facilitators be conducting the program on their own time without the added challenges of the school's scheduling constraints, but they would also be reaching girls in the slums who may not attend school. The facilitators also noted that parents in the slum communities are interested in learning the subjects in this curriculum both for their children and themselves.

Research challenges included the following:
1) <u>Lack of dedicated space for midpoint evaluations</u>
For the same reasons that the program was moved from in-school to after-school sessions (the sudden influx of students in government schools from recent law changes), Sangath was forced to conduct midpoint evaluations under less-than-optimal conditions. Some evaluations were conducted hurriedly because students were in classrooms with other children, the classes were noisy, and girls were mixed with boys during the evaluations. These issues were fully resolved in time for the endpoint assessment.

2) <u>Brief length of time between baseline and midpoint</u>
Because groups were conducted twice per week instead of once per week and the intervention was therefore shortened to 3 months, the midpoint evaluation occurred only 6 weeks after the baseline evaluation. Sangath believes that this short duration in time is the primary reason that no significant results were seen at midpoint, as it is highly unlikely that any intervention focused on mental, behavioral and/or social health could achieve results in 6 weeks. **Thus, on the advice of Sangath, we**

have disregarded midpoint results which demonstrated no significant changes. Substantial statistically significant results were, however, detected in the endpoint assessment, indicating that the program "dosage" of 12 weeks is sufficient for significantly building girls' social capital.

3) <u>Lack of support from overworked classroom teachers in filling out student assessments</u>
The Strengths and Difficulties Questionnaire (SDQ) includes both a Student Self-Report and a Teacher Report (each with a 25 question scale). The Teacher Report portion of the SDQ presented distinct challenges: 1) A single school teacher typically had 150-170 children in their class, so in some cases they barely knew the students, and 2) Completing the questionnaires was time-consuming and complicated (each teacher often had about 50 students to "assess"). Sangath was present during the baseline and endpoint assessments to ensure that teachers gave adequate attention to the assessments despite these challenges.

6   Learning Questions

6.1   Curriculum

Learning questions: What is the curriculum for the facilitators? What is the curriculum for the girls? Who facilitates the groups for the girls? Which elements of the CRPG build girls' social capital?

What is the curriculum for the facilitators and the girls?
The curriculum for training both facilitators and girls was developed in collaboration with local partners and all trainings were adapted to the specific cultural situation of the slums. We have found that the structure of CorStone's curriculum is quite adaptable to widely varying cultural situations because it focuses on universal values as learning topics and then requires open discussion of the culturally-specific application of these values during sessions. An overview of the curriculum covered is included in [Appendix B: CRPG Curriculum](#).

Who facilitates the groups for the girls?
CorStone's local implementation partner, the Federation of Slum Dweller Women, collaborated in developing required facilitator qualifications, settling on the flexible and strong team-facilitation combination of one slum-dwelling woman who is very close to the culture and one Master's student facilitator who is well-educated and highly qualified to follow the curriculum strictly. This combination, though it proved challenging at times because of language difficulties, provided the unique benefit of raising awareness of slum conditions and reducing discrimination among people from different socio-economic statuses in India by pairing women from radically different backgrounds who otherwise may never meet. <u>Importantly, these facilitator pairings gave the girls a rare opportunity to experience women of different castes, socio-economic backgrounds, and education, modeling active collaboration, partnership, and positive communication.</u>

Which elements of the CRPG build girls' social capital?
Girl participants in the CRPG reported that the learning topics themselves (for instance, the topics of 'character strengths' and forgiveness) were the most resonant part of the program and empowered them to make genuine positive changes in their attitudes, their approach to problem-solving, and their self-beliefs. Girls also reported that gaining these particular skills helped them to better deal with family members and peers, resulting in reduced anxiety and increased self-confidence.

Facilitators reported that the peer support group format of the sessions was very effective for the girls, indicating that at first the girls were hesitant to open up and participate in the support group but quickly became more talkative and comfortable sharing their feelings with the group. Facilitators reported that girls learned how to better communicate and relate with each other socially from this atmosphere of confidential mutual support.

6.2   Girl Outcomes

Learning question: What changes do adolescent girls experience in social capital, emotional resilience, optimism, ability to cope with strengths and difficulties after participating in the CRPG?
Girl participants in CorStone's CRPG showed significant changes in mental and behavioral health indicators as measured by the SDQ and YLOT. For instance, from baseline to endpoint, the proportion of girls scoring "normal" on the SDQ increased significantly, and girls' pessimism levels decreased considerably (see Section 3.2: Main Outcomes of Quantitative Analysis for more detailed findings).

Qualitative data also indicated increased resiliency and ability to harness strengths and cope with difficulties. Many of the girls were able to articulate not only the favorite lessons they had learned from the program but also moments when they had applied the learning in their lives. As one girl said, *"I learned that you should never lose your strength. Whatever problem comes to your life, face the problem and fight it."* This same girl said that she used to be afraid of exams and have great testing anxiety, but she now feels more confident to tackle them head-on and feels a lot less anxiety. (For a more detailed story about a girl who went through the CRPG and her journey of harnessing her own strengths to deal with challenges, see Appendix A: Sonal's Story.)

6.3   Girl Profile

Learning question: For what profile of girl is CRPG most effective? Can CRPG improve outcomes for extremely vulnerable girl segments?
CorStone's CRPG in Surat produced significant changes in mental, social and behavioral health indicators for a group of girls living in urban slum communities. All participants in this program faced extreme poverty, violence, limited parental involvement, and a great risk of early marriage. The fact that the CRPG was successful in this setting, despite significant challenges, indicates that the CRPG improves outcomes for extremely vulnerable girl segments.

Evaluation results suggest that it may be the most vulnerable girls – those who are struggling more mentally, behaviorally and socially – who benefit the most from the CRPG (girls with low baseline scores tended to make the most dramatic improvements). Girls with higher baseline scores – those who were having fewer difficulties at the beginning of the program – tended to make less dramatic improvements but achieved higher endpoint scores than those of the most vulnerable girls. It can be said, therefore, that girls starting from different points of mental, behavioral and social health can *all* benefit from the CRPG, but that the change is more pronounced for girls starting with lower health levels and that the end achievement is higher for girls starting with higher health levels (see Section 3.2: Main Outcomes of Quantitative Analysis).

6.4   Dosage

Learning questions: Is the 23-week program cycle necessary, or can girls' social capital be sufficiently built in a 12 week implementation? What is the right dosage for girls' transformation?
CorStone's CRPG implementation in Surat was completed in 12 weeks by holding sessions approximately twice per week. Results indicate that this program was very successful for a highly vulnerable population

of girls, so we believe that this 12-week "dosage" of the program is appropriate for the program. In Surat, in particular, where many families are migratory, a 12-week program was an appropriate length as it made it more likely that girls would be able to attend all sessions of the program. The CRPG, therefore, is quite flexible, and can be implemented as a 6-month or 3-month program as the local needs dictate. Discussions with implementing partners in urban slums in other cities (Delhi, Mumbai) indicate that a twice per week program may not be possible in some situations, so we do plan to offer both a 3-month (2 sessions per week) or 6-month (1 session per week) option in the future.

Appendix A: Sonal's Story

A Story of Resilience from the Slums of Surat, India

October 9, 2011
Kate Sachs, Program Associate, CorStone

Sonal stands in her uniform in front of Sarvajanik High School

Sonal is a vibrant 15 year old girl with a passion for life who recently completed [CorStone's Children's Resiliency Program for Girls in India](). In this photograph, she stands in her school uniform outside of the government-run Sarvajanik High School in Surat, Gujarat, where she is a 9th grade student. Sarvajanik High School is severely overcrowded and understaffed. In Sonal's class, there are 150 students and only one teacher.

I visited Sonal's school with CorStone's Executive Director Steve Leventhal last week, hoping to learn more about the girls who went through the CorStone program. Greeted by a group of grinning girls when we arrive, we take some time to sit and talk with Sonal privately. Sonal is understandably shy at first; she has barely ever talked to someone from a higher caste, let alone inquisitive foreigners from 10,000 miles away.

I ask Sonal what she likes to do outside of school. Suddenly, she is so bubbly that she can't seem to contain herself. "I love English movies!" she says, barely taking a breath, "I can't understand the speaking but I read the subtitles. Spiderman is my favorite movie! And also I love Kung Fu movies. Jackie Chan is my favorite hero. And also Michael Jackson. And Sharukh Khan!" She's very excited to find out that Steve loves Kung Fu movies, too, and grins when she finds out that he's even met Jackie Chan.

Girls packed into a classroom at Sarvajani High School

Sonal certainly loves movies, but she has not had many opportunities to see them. **Sonal is a 'Dalit', a member of India's lowest caste, one of the so-called 'untouchables'.** She has lived in Surat's slums her entire life, where hundreds of thousands of people live in shanty communities packed into tiny pieces of land and a TV is an almost unheard-of luxury. The streets are small alleyways filled with garbage and human waste. Being outside is highly unsafe, especially for a young girl.

Sonal is well aware of these realities. "The area where I stay is very bad," she tells us, "Even if you have a full body covering, you shouldn't go outside." Many of the boys start drinking at an early age and alcoholism, sexual harassment and sexual assault are facts of daily life. "There are many fights on the streets and there is a lot of theft. There is even murder," Sonal says truthfully.

Women walk past a home in a Surat slum

"Recently I was having fear," Sonal says quietly. "I have been having a brain problem. I was feeling like crying all the time. **Some days I feel like, 'I will die today'."** Sonal's anxiety levels have been high throughout her life and she has already developed a number of nervous habits. "I have a habit of drinking a lot of water until my stomach is in a lot of pain. I have to go to the bathroom many times but my stomach still hurts. I do the same thing repeatedly due to tension," she tells us. "I was having fear that I can't face this problem. I was feeling sad. Every time I thought about it I would start crying." Sonal has been under a doctor's care for these problems but until now has seen minimal improvement.

However, Sonal no longer feels that the situation is hopeless. After participating in CorStone's Children's Resiliency Program for Girls, Sonal feels that her anxiety, sadness and physical pain have drastically decreased. **"Now I feel better. I learned that even if someone is giving me pain, I can forgive them. I need to live with love. No one should be hurting another person."**

Against all odds, instead of conforming to community norms of hopelessness and violence, Sonal is growing up to become a strong and self-assured young woman. As a result of the CorStone program, she has internalized a language that empowers her to make change and is able to identify positive activities ("I really enjoy writing. English is my favorite subject!"), as well as positive forces in her life that she can draw upon in times of crisis ("My parents are good. They love me very much and support me in my learning"). Though she's still deciding on her path, she thinks that scientific research might really interest her.

Thank you for helping us to bring hope and change to girls like Sonal living in desperate conditions in urban slums in India. With your help, we have empowered girls with the skills and training they need to improve their lives.

Appendix B: CRPG Curriculum

Program Curriculum

Session	Topic
Session 1	*Baseline assessment*
Session 2	*Introduction to the group* During the first two sessions, participants are introduced to the program and the basic themes that will be covered. The girls work together to create a set of group guidelines and agreements – including a confidentiality agreement – in order to protect members of the group and to set the tone as a space for open sharing. A standardized mental and behavioral health baseline assessment of all participants is performed at this time.
Sessions 3-5	*Character strengths* Sessions three to five focus on the concept of 'character strengths'. Character strengths are innate assets possessed by all individuals (for instance, integrity, curiosity, creativity, persistence, fairness, etc.). Identifying a person's specific set of character strengths has been shown to increase self-esteem, well-being, and resiliency. Group participants explore their own character strengths and learn to recognize the strengths of others during these sessions.
Sessions 6-8	*Emotional Intelligence* During sessions six to nine, group participants learn how to better identify and manage their emotions. Emotional self-awareness and regulation has been shown to positively impact school and work achievement while decreasing the likelihood of conflict and mental health problems. In these sessions, group members practice identifying and managing negative emotions in themselves and others such as anger, disappointment, worry, stress, and fear.
Session 9	*Listening* Group members learn how to listen effectively and provide a supportive environment for others. Members actively practice these new skills with one another to build supportive relationships and understand how active listening can be beneficial in solving problems, helping others, and building empathy and positive social connections.
Session 10	*Midterm assessment*

Program Curriculum, continued

Session	Topic
Sessions 11-14	*Restorative Practices* Sessions thirteen to sixteen focus on Restorative Practices, a set of strategies and techniques demonstrated to result in effective problem-solving and conflict resolution. Additional topics introduced include "I feel" messages, issues of fairness and justice, and the importance of apologies and forgiveness. Group members build their skills using real problems that they have faced themselves and have chosen to bring to the group.
Sessions 15-16	*Revisit Character Strengths and Problem-solving* Group members review what they've learned about character strengths and problem-solving, this time focusing on applying these lessons to their own personal relationships. Positive as well as negative experiences with relationships – specifically friendships – are discussed as participants share openly with the group.
Session 17	*Focus on Peace* In session nineteen, group participants discuss the concept of peace and how to bring peace to their own lives. Group members are empowered to express their understanding of peace through art and discussion and are encouraged to identify concrete actions they can take to help increase peace in their lives and their community.
Sessions 18-19	*Review, Celebrate, and Share* During these two closing sessions, participants practice all of the skills they learned while sharing openly the problems they are facing outside of the group. Group members make concrete plans for utilizing what they learned to better their own lives as well as the lives of others in their communities.
Session 20	*Final assessment*