



CARE Bangladesh

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The Tipping Point Adolescent Empowerment Index

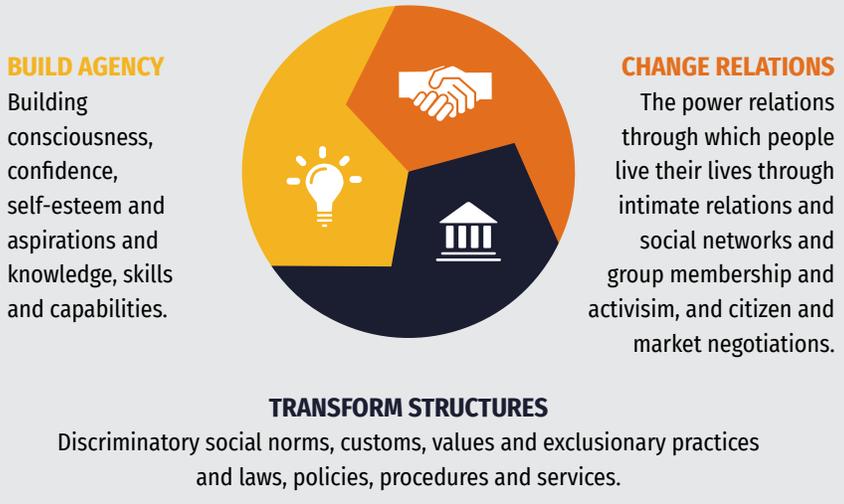
A Tool to Measure Adolescent Girls' Agency and Root Causes of CEFM in Bangladesh

Globally, CARE's adolescent programming prioritizes addressing gender inequality for women and girls. Despite this focus, standardized measurement of adolescent girls' empowerment in our programs continues to remain a challenge. To strengthen and standardize the measurement of various components of adolescent empowerment, CARE's Tipping Point (TP) Initiative, in collaboration with Bangladesh's International Centre for Diarrheal Disease Research (icddr), developed and tested the **Tipping Point Adolescent Empowerment Index**. The TP Initiative, with the generous support of the Kendeda Fund, focuses on addressing the root causes of child early and forced marriage (CEFM), by promoting the rights of adolescent girls through community level programming and evidence generation in Bangladesh and Nepal¹ and multi-level advocacy and cross-learning efforts across the globe. For the purpose of this index, the measurement scales included have been developed for the context of Bangladesh and seek to measure three overarching domains of change essential to ensuring gender equality and thus meaningful empowerment of adolescent girls.

Tool Development

This measurement index consists of newly developed survey scales along with scales modified from existing standardized scales where gaps in existing measures were adapted, and then validated, to measure adolescent girls' agency, the relations restricting girls' agency and informal social structures that sustain unequal power relations in their lives. Hence, a gender transformative lens was used to understand and measure the three components of CARE's gender equality framework (GEF)² (i.e., agency, relations, and structures) and thus an index to measure adolescent empowerment.

Figure 1. Gender Equality Framework



These tools were tested and refined through a pilot test of the quantitative survey tool through administering the questionnaire with a representative sample of 100 adolescent girls in Pirgacha upazila, Rangpur, Bangladesh in 2018.

Final measures were then deployed in a population-based survey with 1,275 adolescent girls aged 12 to <16 selected from 51 clusters in Pirgacha. Data were collected between February 2 – April 9 of 2019.

Once data were collected, scales were validated using exploratory factor analysis and reliability analysis. The rotated factor loading of an item against all the suggested factors was checked for non-loading and cross loading. The cut-off for item loading was set at a correlation coefficient of 0.35, which was derived from the exploratory factor analysis. An item was considered as cross loaded if it loaded under two or more factors. The analysis was rerun

excluding the non-loaded and cross loaded items one by one. This process continued until no non-loaded or cross loaded items were left. Any factor with less than 3 items was dropped.

Internal consistency (or reliability) of a scale was measured using Cronbach's alpha, and a scale with alpha equal to 0.60 or more was considered acceptable. Scale validity was measured using the Kaiser-Meyer-Olkin (KMO) test, where KMO equal to 0.60 or more was considered acceptable. We have reported both alpha and KMO coefficients in Table 1, and individually for each scale below. Items in the survey questionnaires were recoded so that all are anchored at 0. For example, each item scored 1-4 in the questionnaire was recoded to 0-3. Once the final scale was constructed, a summative score was obtained for each scale, and the score was divided into three tertials. These tertials were equally divided into three groups representing 'low', 'medium', and 'high' for each scale.

DOMAIN	SCALES	# OF ITEMS	CRONBACH'S ALPHA	KMO	MEAN	SD	RANGE
Agency	Mobility	6	0.53	0.69	4.96	2.72	0-24
	Control by Family Members	4	0.76	0.73	2.88	1.35	0-4
	Self-Efficacy	8	0.79	0.80	16.02	4.70	0-24
	Girls' Communications Skills	10	0.72	0.67	9.22	1.41	0-10
	Girls' Confidence in Negotiation	3	0.72	0.68	7.22	1.94	0-9
	Group Cohesion	13	0.93	0.95	12.07	2.42	0-13
	Confidence in Collective Efficacy of the Village Population	4	0.83	0.79	13.20	3.00	0-16
Relations	Justification of Girls' Beating (physical abuse)	8	0.78	0.82	2.43	2.12	0-8
	Gender Roles	7	0.70	0.81	3.06	1.96	0-7
	Connectedness with Parents	7	0.77	0.82	6.61	1.03	0-7
	Gender Discrimination in the Family	4	0.58	0.68	0.73	0.97	0-4
Social Capital/ Norms	Social Norms	4	0.61	0.69	2.28	2.35	0-8

Mobility of Adolescent Girls

Purpose of scale

To measure the mobility of girls, questions were asked to identify whether girls could visit kin's³ house, a distant cluster in the village, friends in a village, the market, or a health facility, etc. Information was collected on whether permission was required for such visits and whether the girl was accompanied by someone during her last visit.

Interviewer: Now I would like to ask you a few questions about your mobility and network.

Interviewer: Generally, can you visit each of the following places?

1. A distant cluster/para in the village
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?
2. Other friends/relatives in another village/town
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?
3. Market
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?
4. Health facility/provider
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?
5. Community meeting/gathering
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?
6. Fair/park/somewhere else for recreation
 - b. **Interviewer:** Was permission required during the last visit?
 - c. **Interviewer:** Did anyone accompany you during the last visit?

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
6	0.53	0.69	4.96	2.72	0-24

Item Response Options: Cannot visit = 0; Can visit with permission and chaperone = 1; can visit without permission, but chaperoned = 2; can visit with permission, but without chaperone = 3; can visit without permission and without chaperone = 4

The scale scores range from 0 – 24 and were divided into three tertials indicating “low”, “medium,” or “high” self-efficacy, where higher scores indicate higher mobility.

Control by Family Members

Purpose of scale

Adolescent girls' attitudes regarding control of their behaviors by family members was measured using four items. These scales include questions regarding how adolescent girls feel their family members are justified in different levels of controlling behaviors.

Interviewer: The next sets of questions are about your views on life and particularly about your views regarding the relationship with your family members. There are no right or wrong answers—we are just interested in what you think.

Interviewer: Now, I'll read out some statements. Please say whether you agree or disagree with each of the statements.

A Family Member is justified in:

1. Telling a girl which friend she can or cannot talk to or see.
2. Not allowing a girl to go outside alone.
3. Telling a girl what kind of dress she can or cannot wear.
4. Telling a girl what to do all the time.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
4	0.76	0.73	2.88	1.35	0-4

Item Response Options: Disagree=0 or Agree=1

The scale scores range from 0 – 24 and were divided into three tertials indicating “low”, “medium,” or “high” self-efficacy, where a higher score indicate higher control by family members.

Self-Efficacy

Purpose of scale

Self- efficacy refers to the individual’s belief in his or her capacity to execute behaviors necessary to produce specific performance attainments.⁴ Girls’ self-efficacy was measured to obtain girls’ perceived confidence in achieving life goals in education, healthcare, mobility, marriage, and income generation.

Interviewer: Now I will ask you a few questions about your desire about education, employment, marriage, and mobility.

Interviewer: How confident are you about:

1. Achieving life goals despite challenges
2. Achieving desired education.
3. Accessing healthcare if ill
4. Leaving home if needed without permission
5. Speaking about girls’ problems in community
6. Refusing marriage if not desired
7. Working for money or in income generation if wanted
8. Working for money or in income generation if family objected

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
8	0.79	0.80	16.02	4.70	0-24

Item Response Options: Not at all confident=0; Somewhat confident=1; Fairly Confident=2; Strongly/completely confident=3

The total score of the scale ranges from 0 to 9, where higher scores indicate more confidence in negotiation ability.

Communication Skills

Purpose of scale

The scale on girls' communications skills was adapted from the Quality of Communication Experience (QCE) scale created by Leigh Anne Liu et. Al.⁵ The original QCE scales consisted of 15 questions regarding communication clarity, responsiveness, and comfort. The 10 chosen questions for TP's Girls' Communication Skills Scale were all adopted from the 15 original QCE scale to include those items that were particularly salient in terms of communication quality and skills among adolescent girls.

Directions: The questions refer to any persons with whom you are having a conversation.

Interviewer: Now, I'll read out some statements about your communication with others. Please say whether you agree or disagree with each of the statements.

1. I understood what the other side was saying.
2. I understood what was important to the other side.
3. I think the other side understood me clearly.
4. The messages exchanged were easy to understand.
5. The other side responded to my questions and requests quickly during the interaction.
6. I was willing to listen to the other side's perspectives.
7. When the other side raised questions or concerns, I tried to address them immediately.
8. I was not nervous talking to the other side.
9. I felt comfortable interacting with the other side.
10. The other side seemed comfortable talking with me.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
10	0.72	0.67	9.22	1.41	0-10

Item Response Options: Disagree=0 or Agree=1

The total score of the scale ranges from 0-10, where higher score indicates better communication skills.

Confidence in Negotiation

Purpose of scale

Adolescent girls' confidence in negotiating with parents around key decisions like education, timing of marriage and increased mobility was measured by asking three questions.

Interviewer: Now, I will ask if you are able to communicate or negotiate with your parents or guardian about education, marriage, and mobility. Please relay and respond on your own confidence in your abilities to communicate these matters.

1. Negotiating with parents/guardians about own education.
2. Negotiating with parents/guardians about own marriage.
3. Negotiating with your parents/guardians about own mobility.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
3	0.72	0.68	7.22	1.94	0-9

Item Response Options: Not at all confident=0; Somewhat confident=1; Fairly Confident=2; Strongly/completely confident=3

The total score of the scale ranges from 0 to 9, where higher scores indicate more confidence in negotiation ability.

Group Cohesion

Purpose of scale

John C. Buckner's Neighborhood Cohesion Scale⁶ was adapted for the purpose of this index to measure group cohesion among adolescent girls. The Adolescent Girls' Group Cohesion scale questions referenced a previous background question on group membership.⁷

Interviewer: I will ask you some questions regarding the relationship between and within a group.

Interviewer: I will read few statements about your group. Please say whether you agree or disagree with each of the statements.

1. Overall, I am very attracted to this group.
2. I feel like I belong to this group.
3. The friendships and associations I have with other people in my group mean a lot to me.
4. If the people in my group were planning something, I'd think of it as something "we" were doing rather than "they" were doing.
5. If I needed advice about something, I could go to someone in my group.
6. I think I agree with the most people in my group about what is important in life.
7. I believe my group mates would help me in an emergency.
8. I feel loyal to the people in my group.
9. I borrow things and exchange favors with my group mates.
10. I would be willing to work together with the others on something to improve my group.
11. I like to think myself as similar to the people who are in this group.
12. A feeling of fellowship runs deep between me and other people in this group.
13. I regularly stop and talk with people in my group.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
13	0.93	0.95	12.07	2.42	0-13

Item Response Options: Agree=1 or Disagree=0

The scale's total score ranges between 0 and 13 with higher score indicating group cohesion.

Confidence on Collective Efficacy of Girls and Community Members

Purpose of scale

Adolescent girls' collective efficacy was measured by assessing girls' certainty that they could undertake collective action involving the community around preventing child marriage, preventing violence against girls, trying to achieve girls' rights, and tendency to help each other during needs.

Interviewer: Now I will ask you some question regarding the relationship between and within a group that you belong to. I will also ask you few questions about any event that you may have taken part.

Interviewer: How sure are you that:

1. The girls and others in your community could prevent child marriage.
2. The girls and others in your community could prevent violence against girls.
3. The girls and others in your community could try to achieve girls' rights.
4. The girls and others in your community would help each other during needs.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
4	0.83	0.79	13.20	3.00	0-16

Item Response Options: Not sure at all=0; Somewhat unsure=1; Neither sure nor unsure=2; Somewhat sure=3; Completely sure=4

The total scores of the scale range from 0-16.

Gender Attitudes

The broader category of Gender Attitudes of girls was measured through three specific scales including: *gender roles, control of girls by family members, and justification of girl beating*. Certain statements and scale items were developed and modified from the broader Gender-Equitable Men Scale (GEM).⁸

Gender Roles

Purpose of scale

Gender roles chosen to include in this scale were discussed with the TP team and icddr,b to capture roles specific to customs and norms in the study context. The seven items identified measured adolescent girl’s attitudes and views on the gender roles most present in their communities and cultures.

Interviewer: The next sets of questions are about your views on the roles that men and women play in society. There are no right or wrong answers—we are just interested in what you think.

Interviewer: Now, I’ll read out some statements. Please say whether you agree or disagree with each of the statements.

1. A woman’s role is to take care of her home and family.
2. A woman has to have a husband or son or some other male kin to protect her.
3. It is important for a man to show his wife who is the boss.
4. A man should have the final decision about important household issues.
5. Only when a woman has a child, she is a real woman.
6. A wife should always obey her husband.
7. A woman should tolerate violence in order to keep her family together.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
7	0.70	.81	3.6	1.96	0-7

Item Response Options: Disagree=1 or Agree=0

All the items were reversely coded, to have a positive direction. The total score of the scale ranges between 0 and 7, higher score indicates more gender equitable attitudes towards gender roles.

Justification of Girl Beating (physical abuse)

Purpose of scale

Attitude towards justification of physical chastisement of the girl, which in the context of Bangladesh is referred commonly as girl-beating, was measured using scenarios where physical violence toward girls might be perceived as justified. Nine scenarios were measured, but after factor analysis, eight items were retained in the girls' sample. Girls are asked to answer questions that assess if they feel that girls are 'deserving' of physical violence in different circumstances.

Interviewer: The next sets of questions are about your views on life and particularly on relations between men and women in society. There are no right or wrong answers—we are just interested in what you think.

Interviewer: Now, I'll read out some statements. Please say whether you agree or disagree with each of the statements.

1. A girl deserves to be beaten when she talks to a boy.
2. A girl deserves to be beaten when she goes out to play.
3. A girl deserves to be beaten when she stays out late.
4. A girl deserves to be beaten when she doesn't help in household chores.
5. A girl deserves to be beaten when she doesn't obey elders.
6. A girl deserves to be beaten when she fights with others in class.
7. A girl deserves to be beaten when she fights with brothers and sisters.
8. A girl deserves to be beaten when she replies back when harassed by boys.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
8	0.78	0.82	2.43	2.12	0-8

Item Response Options: Disagree=0 or Agree=1

The total scale score was 0-8 (higher score, high endorsement of girl beating).

Connectedness with Parents

Purpose of scale

This scale was used to measure adolescent girls' emotional and relational connectedness with their parents. Girls' connectedness with parents was assessed by using seven items. Girls were asked whether they agreed or disagreed with each statement regarding relational connectedness.

Interviewer: I am interested to know the relation between you and your parents.

Interviewer: The next few questions are about the relationship between you and your parents. Now I will read out some statements. Please tell me whether you disagree or agree with the statements.

1. You feel very close to your parents.
2. Your parents spend time with you.
3. You can approach your parents for any problem that you face.
4. Your parents care about you.
5. You parents help you with your homework.
6. You feel comfortable to talk to your parents.
7. You are very important to your parents.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
7	0.77	0.82	6.61	1.03	0-7

Item Response Options: Disagree=0 or Agree=1

The total score of the scale was between 0 and 7 with higher score indicating greater connectedness.

Gender Discrimination in the Family

Purpose of scale

This scale was used to measure adolescent girls' experiences of gender discrimination at home or with their families. These questions were only asked to those who reported having a brother within 1-2 years of age difference.

Interviewer: Do you have a brother of a similar age? i.e., only a couple years older or younger?

If Yes, then following questions:

1. Your parents pay attention to your problems as much as they pay attention to your brothers' problems.
2. Your parents listen to your opinion as much as they listen to a brothers' opinion
3. Your parents treat you equally to your brothers in terms of how much work you have to do for your family (total time for household labor, field work, etc.)
4. Your parents consider your study as important as your brother's.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
4	0.58	0.68	0.73	0.97	0-4

Item Response Options: Disagree=1 or Agree=0

The total score of the scale ranged from 0 to 4, with the higher scores showing higher gender discrimination within a family.

Social Capital/Norms

Social Norms

Purpose of scale

This scale looks at key social norms underlying CEFM which were identified and prioritized through formative research conducted in Phase 1⁹ of the Tipping Point initiative. That phase used a participatory feminist and developmental assessment approach to identify social norms contributing to CEFM in the context of Bangladesh. Of those social norms surfaced, the norms prioritized for further investigation have been included in the questions developed to quantitatively measure the selected components of CARE's Social Norms Analysis Platform (SNAP)¹⁰ framework to assess girls' perceptions about these prioritized norms: i) Adolescent girls walking in and around their village (mobility) ii) Adolescent girls riding bicycles or playing sports.

Interviewer: The next sets of questions are about life and the experiences of girls like you in your community. There are no right or wrong answers. We are just interested to learn about your experiences.

Interviewer: Now I will read a few statements. Thinking about the people of your village/community, please say whether they will approve, disapprove or will be neutral for each of the behaviors mentioned.

1. If a girl goes to the bazaar (market) alone.
2. If a girl rides a bicycle for leisure (not to school)
3. If a girl plays football or other outdoor sport.
4. If a girl walks alone to visit her friend in her free time.

# OF ITEMS	ALPHA	KMO	MEAN	SD	RANGE
4	0.61	0.69	2.28	2.35	0-8

Item Response Options: Approve=1; Disapprove=0; Neutral=2

The total score of the scale ranges between 0 and 8 with higher scores indicating positive social norms.

CONCLUSION

The Tipping Point Initiative's Adolescent Empowerment Index aims to present validated measures that can be used by projects working with adolescents and youth and which can be modified based on the context in which they need to be applied. Many of these scales align well with CARE's 2030 global indicators and guide the development of a measurement approach that assesses adolescents' self-efficacy, their gender roles, and their attitudes and social norms. A gender-transformative approach is at the foundation of crafting this set of scales and CARE projects can benefit by applying this index on its own or in combination with other scales.

For more information on these scales, please contact: Sadhvi Kalra, Technical Advisor, MEL, The Tipping Point Initiative.

For further reading on the index and how it was used, please read the [Tipping Point Bangladesh baseline evaluation](#). More information on the scales applied with community members to assess perceptions towards girls' agency, gender roles, attitudes, and social norms restricting girls can be found on the [Tipping Point website](#). To see how these scales have been adapted in Nepal, please see the [Nepal Baseline Evaluation](#) report.

Endnotes

- 1 For Nepal, these scales were modified and adapted by Emory University. To look at the scales adapted by Nepal, please refer to Nepal Baseline Evaluation report: <https://www.care.org/news-and-stories/resources/tipping-point-phase-2-baseline-report-nepal/>
- 2 Gender equality and Women's Voice Guidance Note. Page 7. https://insights.careinternational.org.uk/images/in-practice/GEWV/GEWV_guidance-note_english_2019.pdf
- 3 Kin – family member or relative
- 4 Bandura A. Self-Efficacy: The Exercise of Control. W H Freeman/Times Books/ Henry Holt & Co; 1997:ix, 604.
- 5 Liu LA, Chua CH, Stahl G. Quality of communication experience: Definition, measurement, and implications for intercultural negotiations. *The Journal of applied psychology*. 2010;95: 469-487. doi:10.1037/a0019094
- 6 Buckner J. The Development Of An Instrument To Measure Neighbourhood Cohesion. *American Journal of Community Psychology*. 1988;16:771-791. doi:10.1007/BF00930892
- 7 Background Group membership questions were included in the background portion of the questionnaire, which is not considered as part of the scales chosen, for more information on these questions, please refer to the [Bangladesh baseline report](#).
- 8 Pulerwitz J, Barker G. Measuring Attitudes toward Gender Norms among Young Men in Brazil: Development and Psychometric Evaluation of the GEM Scale. *Men and Masculinities*. 2008;10(3):322-338. doi:10.1177/1097184X06298778
- 9 For further information on TP Phase 1 methodology please refer to the Tipping Point Project's Phase 1 Evaluation Reports: <https://www.care.org/our-work/health/fighting-gender-based-violence/tipping-point/tipping-point-meal-resources/>
- 10 CARE's SNAP framework can be found [here](#)

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