

Towards gender equality The GEMS journey thus far



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Towards gender equality

The GEMS journey thus far



An evaluation report of the Gender Equity Movement in Schools (GEMS) program in Jharkhand



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ICRW Team

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1. BACKGROUND

Gender-based violence (GBV) reflects and reinforces inequitable gender norms. These norms are known to affect the health and lives of girls and boys, men and women at all levels of society, and result in adverse outcomes such as emotional distress, mental health problems and poor reproductive health (Contreras et al. 2012; Knerr, 2011). Inequitable gender norms also limit women's access to education, employment and health care and curtail their involvement in decisionmaking (ICRW, 2011; Acharya, 2010; G. Sen and P. Ostlin, 2008). Further, these inequitable norms inform notions of masculinity, power and relationships, directly shaping individual behavior, including the acceptability and use of violence (Hiese 2011, WHO 2009). They encourage men and boys to take risks in terms of sexual behavior, substance abuse, and perpetuate violence on women and girls (Barker et al. 2011; Verma et al. 2008; Barker et al. 2007). The acceptance of violence, either as a normal method of resolving conflict or as a familiar aspect of rearing children, is a risk factor

for all types of interpersonal violence (Levtov et al. 2014; Flaming et al. 2013; WHO 2012).

It is increasingly recognized that primary prevention approaches i.e. those that seek to prevent or stop violence before it starts are critical to achieving a long-term reduction in GBV. However, these processes must begin at early ages, when notions on gender and violence are still being formed. Schools provide a compelling setting to engage children (both boys and girls) and influence their knowledge, behavior and attitudes toward gender, equity and power. Thus, schools emerge as powerful socialization settings and provide a platform to reach out to a large number of children. However, more often than not, schools perpetuate stereotypes and condone the use of violence (Bhatla et al, 2014; Barker 2006; Pinheiro 2006; Dunne Mairead et al. 2005). Nevertheless, being one of the key institutions of socialization, schools have the potential to promote gender equality and question the use of violence to bring about and sustain change.



2. GENDER EQUITY **MOVEMENT IN SCHOOLS** - THE PROGRAM

2.1 Principles

GEMS or **Gender Equity Movement in Schools** is a school-based primary violence prevention program for young adolescents aged 12-14 years, studying in grades 6th to 8th. GEMS reaches out to all children attending classes to recognize and challenge inequitable behavior and violence as opposed to engaging through intervention with only those children who exhibit threatening or aggressive behavior. The International Center for Research on Women (ICRW), in partnership with the Committee of Resource Organizations for Literacy (CORO) and the Tata Institute for Social Sciences (TISS), conceptualized, designed and implemented GEMS across 45 municipal schools in Mumbai, India during 2008-11 (Achyut et al. 2011). Since then, the program has been adapted and implemented at multiple sites within and outside India.

GEMS draws its approach and strategies from four conceptual pillars - starting young, engaging both girls and boys in the gender discourse, using a gender transformative approach and using institutional settings for normative change.

Starting young

Gender norms and attitudes are learned and internalized at young ages with long-lasting impacts on opportunities and aspirations, health and well-being, self and relationships between people of all genders. These inequitable norms need to be questioned, examined and challenged; and this needs to start at a young age, when these notions are still forming.

Working with both girls and boys

A distinction must be made between using boys as allies to address violence against women and girls and addressing GBV as a paradigm of power that reinforces the gender stereotypes. GEMS uses the latter—asking girls and boys to critically reflect on how the masculine-feminine power imbalance can be changed in order to address GBV. GEMS provides an enabling and safe environment for alternative behaviors to be imagined, learned and practiced.

The understanding that violence is a means to maintain power and gender inequities necessitates that the program recognizes



and addresses the notions of patriarchy as well as the concepts of masculinity, authority, entitlement, sexuality and gender roles. Harmful notions of masculinity may condone aggression, violence, sexual power and homophobia; while expectations of being 'good girls' encourage submissiveness and acceptance of violence as a result of nonperformance of gender roles. Thus, both girls and boys must engage in gender analysis and practice equitable gender relations.

Institution-based structural approach to gender equality

Gender norms, stereotypes and discrimination are maintained and perpetuated through key social institutions. Intervening in institutions become critical for initiating and sustaining change. Along with the family, schools are key socialization institutions, where children spend large amounts of time. The GEMS program positions schools as institutions that can create and sustain change, but that also need to change themselves. It emphasizes the role of schools to 'teach' beyond academics. Teachers are central to the GEMS approach, as they are not only providers of knowledge, but influence the personality and future of children. School infrastructure, practices and policies, the curriculum, violence response mechanisms are aspects that need to be examined in an institution-based approach to have a sustained impact.

Gender transformative approach

GEMS seeks to challenge, recognize and transform gender relations and genderbased stereotypes for both girls and boys. The program is designed to help teachers and students recognize the differential value assigned to boys and girls by society and how this can give rise to violence at early ages. Teachers are not merely vehicles to transact the curriculum – they themselves

need to ponder and start their personal journeys of gender transformation. The gender transformative approach thus involves pausing and reflecting on our everyday lives to recognize and understand the social construction of gender and patriarchy and how it is reflected in small everyday actions that we undertake. Creating opportunities for engaging girls and boys to observe everyday manifestations of norms, reflect, analyze and challenge them is a critical process in the GEMS approach.

Dissonance is a necessary step in this process; as is the recognition of positive deviance and positive role models. Transformation begins by questioning, but it is a journey; and the program starts these processes. A constant reflection, articulation, checking of ideological positions is vital for transformation to continue, hence regular forums that provide this space are a critical program component. Opportunities of critical reflection (individual and collective) are created through the methodology of classroom-based Group Education Activities (GEAs), school campaigns, community engagement and peer-led activities.

2.2 Theory of Change

GEMS' Theory of Change draws from the social normative framework and applies to the construction of gender and violence therein. It considers that the notions of dominance and power, and the use of violence to resolve conflicts set in at early stages through various socialization processes, thereby creating a normative environment that supports specific mutual commitments i.e. norms (behavior prescription rules) explicitly. Compliance to these norms are incentivized through the application of sanctions, often through institutional structures and mechanisms (Cordoso and Oliviera¹). The program uses gender transformative approaches within the school

^{1.} Cardoso, Henrique Lopes and Oliveira, Eugénio. 2011-12. Social Control in a Normative Framework: An Adaptive Deterrence Approach. Retrieved from: http://paginas.fe.up.pt/~niadr/PUBLICATIONS/LIACC_publications_2011_12/pdf/OR4_Social_Control_Normative_Framework_HLC_ECO.pdf.

setting, to engage girls and boys to recognize, challenge, and transform gender norms.

GEMS uses a combination of the cognitiveaffective approach² and life skills, undertaken in institutional settings, to bring transformative and sustained changes toward violence prevention. Drawing from the understanding that attitudes have three components (cognition, affective and behavioral), the content is designed to provide the necessary knowledge (cognition) and establish the affective connect to create an understanding of how gender issues impact daily lives and future course for boys and girls, thereby creating motivation to change behaviors.

It engages with teachers and facilitators to transform their pedagogical perspective and skills, who then engage students. The GEAs, undertaken as classroom sessions, create cognitive dissonance and allow students to reflect and analyze different views. Group reflection reciprocates and reinforces the processes of individual change among students. This, coupled with school-level campaigns and orientation workshops with larger sections of teachers and nonteaching staff, initiate institutional discourse on gender. Fostering ownership within the system through sensitization of teachers and principals, and the school as a whole is critical to impact the meso environment. These mutually reinforcing processes, at the individual and systemic level, have the potential to create lasting normative changes toward gender equality and violence prevention.



^{2.} Mischel's Cognitive-Affective model of personality argues that an individual's behavior is not merely a result of his or her traits, but fundamentally dependent on situational cues - the needs of a given situation.

3. GEMS IN JHARKHAND

In Jharkhand, GEMS was implemented and evaluated by ICRW in partnership with the Child in Need Institute (CINI) and Life Education and Development Support (LEADS) in 80 schools across Ranchi and Khunti districts from 2014-2016. Formative research was conducted with students in workshop settings to adapt the program to the context of Jharkhand. The training of select teachers was followed by orientation meeting with all school staff, subsequent to which the GEMS program started in schools. In addition to the core GEMS activities, such as GEAs in classrooms, school and community campaigns, GEMS in Jharkhand included meetings with School Management Committee (SMC) members and specific GEAs with Bal Sansad³ members.

This section describes the activities undertaken in the project. The evaluation design is described in the following section.

3.1 Teachers' Training

GEMS recognizes teachers as an important constituency – an important ally to bring sustained change in gender norms. However, to lead the process of change, teachers need to examine the inherent biases, and the ways in which they reinforce stereotypes in obvious and subtle ways. The gender training workshops with teachers were a critical space and opportunity to create a spark of motivation and conviction to implement a program that challenges the status quo. Across the two academic years (2014 -2016) 85 teachers (two from each of the 40 implementation schools) participated in the twelve days of training. These training were

organized in three rounds of four days each. First round of training focused on concepts related to patriarchy, gender discrimination and violence; second on gender and sexuality; and third on masculinity and violence, with three concurrent approaches.

Starting from self

The training methodology reinforced two strands: first - to connect to the selfexamining one's own life experiences and the emotions connected with feelings of discrimination or inequality; and secondly to reinforce the role of a teacher- as a guide and role model in the lives of children. The training, thus, began with self-reflective sessions where teachers were encouraged to look at their lives, their journeys and discrimination, thereby highlighting the need to change or challenge societal norms.

Building an understanding of patriarchy and how schools as institutions perpetrate it

The role of schools in perpetuating gender stereotypes and violence is often unrecognized. The training workshops included sessions to build a broader understanding of patriarchy, power, gender discrimination and violence, and examine the role of schools within that. This helped them identify personal behavior and institutional procedures that encourage discrimination and violence. The process of transformation is built on aspects of questioning, challenging and the creation of dissonance. Hence, the training workshops emphasized participatory pedagogy and used simulation sessions to increase comfort and strengthen skills of teachers.

³ Bal Sansad, or children's parliament is mandated under the government education program. It is formed with an aim to provide a platform for children to express their views and involve them in the developmental activities of their school. Bal Sansad consists of 12 members from grades 2nd to 8th, with at least half of them girls. It includes a prime minister, deputy prime minister, and minister and deputy minister for five portfolios education, health and sanitation, water and agriculture, science and library, and culture and sports. Bal Sansad members are expected to meet regularly and review their process; and periodically report to SMC on their areas of work and develop a plan of action.

3.2 Orientation of School Staff

To facilitate a conversation on gender in school, discussion needed to be extended to all staff and school orientation meeting is a critical strategy in that direction. In the beginning of the project implementation, an orientation meeting was organized in each of the intervention schools to inform staff about the program, and address their questions and concerns. The orientation meeting was followed by periodic progress meetings to update staff about the program, share learning from other sites and address any questions or concerns.

3.3 Ongoing Support to Teachers

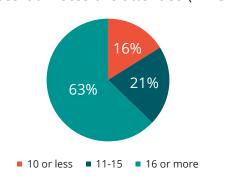
As the processes of challenging gender norms unfold, teachers are bound to undertake their individual journeys, and at different paces. GEMS acknowledges the reality of these multiple journeys and that confronting gender and violence can be difficult and discomforting. Thus, a team of GEMS facilitators was constituted and trained to support the teachers by discussing content, sessions, handling questions and also engaging the rest of the schools, besides supporting actual transaction of classroom sessions. This 'hand-holding' strategy was also important given that in some schools, the infrastructure, including number and quality of teachers, is far from adequate.

3.4 GEAs with Students

The GEMS curriculum includes 24 sessions – 12 in year 1 and 12 in year 2. The year 1 sessions were designed around three broad domains - gender, violence and bodily changes – with a focus on creating understanding of concepts and their manifestations. Year 2 sessions were designed around gender, relationships, emotions, communication and conflict resolution. These sessions used participatory fun activities, including role-play, free-listing, games and debates, which were 45 minute in duration to fit in with the school timetable. In addition, three periods in year 1 and four in year 2 were allocated to discussing activities related to GEMS Diary – an innovative workbook developed with the aim to allow students to take home the messages from the classroom sessions. All sessions, except those on bodily changes, were conducted in mixed group settings. For the ease of students and teachers, three sessions on bodily changes were carried out separately with girls and boys, and facilitated by a same-sex teacher or GEMS facilitators.



Figure 1: Proportion of students by number of classroom sessions attended (n=1523)



Year 2

Gender

Year 1

Gender

1. 2.	Why to talk about equality? What is gender?	1. 2.	Recap of gender Privileges and restrictions
	What is sex?	3.	
3.	What is it to be man?	Re	lationship
4.	Division of work	4.	Healthy relationship
	bdy changes Body Mapping Body changes and	5.	·
_	hygiene	En	notion
7.	Respect for own and others' body	6.	Understanding emotion
	olence What is violence?	7.	Expression of emotion
10. 11.	Is it violence? Labeling Cycle of violence Violence to understanding	9.	wmmunication ad conflict solution Verbal and non-verbal communication Assertive communication Conflict resolution Understanding violence Collective response

3.5 Strengthening the Bal Sansad for Peer Support

to violence

Peer influences are critical factors that can define and shape an individual's behavior during adolescence. In addition, peer-based approaches to sustain discussion are tried tested models for behavior change. Jharkhand schools had provision for forming a Bal Sansad, with the mandate to actively engage students in school functioning. However, early engagement suggested that the process of constituting the Bal Sansad and allocation of role and responsibilities were gendered in nature. For instance, teachers had selected students and allocated position instead of nomination and election. Mostly, boys were nominated for the posts of Prime Minister, while girls were given the responsibility of cleanliness and hygiene. In view of the situation and the mandate of the Bal Sansad, eight specific sessions were designed and conducted during the two academic years.

3.6 Campaign

For larger discussion, two rounds of schoolbased campaigns were organized each year. Both the campaigns were led by students with support from teachers and GEMS facilitators. Few activities, such as poster making, slogan and essay writing, games and races were restricted to students of classes 6 to 8; plays, speeches during assembly and pledges that were open for all students. The GEMS school campaign is a week-long series of events that culminates into a 'GEMS Day'. In addition to school campaigns, students also organized rallies in their communities to spread awareness about gender equality and violence prevention. The SMC members and parents were invited to the community campaigns.

4. EVALUATION OF **GEMS IN JHARKHAND**

4.1 Evaluation Design

We conducted a cluster randomized control trial with longitudinal, mixed method data collection to evaluate the effectiveness of the program. Eighty schools were selected by ICRW to participate in the study and randomly assigned to the intervention and comparison arms. The GEMS program was implemented

across two academic years in 40 schools allocated to the intervention arm, while the comparison schools did not experience any programmatic intervention.

After taking parental consent and assent from the students, three rounds of data collection were carried out with a cohort of 3069 students (1764 girls and 1305 boys) selected from the 80 schools - a) baseline before starting the intervention (July-August 2014); b) midline – after the first year of intervention (February-March 2015); and c) endline – after completion of the intervention (January 2016) . The surveys were conducted using Audio-Computer Assisted Selfadministered Interviewing (ACASI) technique. The guestionnaire and audio were in the local language - Hindi. The survey was supervised by a team of researchers. The details on the sample size, sampling technique and measurements are presented in Annexure 1.

In addition, in-depth interviews were conducted with a select cohort of 60 girls and boys from intervention and comparison schools to understand the process of change. In intervention schools, interviews were done at baseline, midline and endline, whereas in control they were conducted at the baseline and endline. Teachers and principals were also interviewed using a semi-structured interview guide to document program implementation processes at regular intervals.

This research report provides information on both quantitative and qualitative findings.

4.2 Analysis

The key outcome indicators measured through this evaluation were the attitude of students related to gender and violence, interaction between girls and boys, communication with teachers, bystander intervention and perpetration of violence (a detailed list is provided in Annexure 1). Bivariate and multivariate analyses were carried out. More specifically, difference-in-differences (DiD)

analysis was conducted to assess the change between intervention and comparison schools over time. This method compares difference in average outcome in intervention schools before and after intervention with the difference in comparison schools, and helps in detecting the net effect of intervention on outcomes of interest. All the DiD analysis is carried out adjusting for background characteristics - age, father's education, mother's education, religion, caste, and access to TV, CD/DVD, mobile phone and internet. The analysis is performed in STATA 12.0.

The in-depth interviews conducted with students were transcribed and translated into English, and coded in Atlas-ti 7.0. The analysis was carried out to explain and substantiate quantitative findings. KIIs with teachers and principals were analyzed thematically.

5. IMPACT OF GEMS **PROJECT ON STUDENTS**

Over the two years of intervention, the GEMS program has resulted in a significant shift in attitudes of girls and boys toward gender equality and egalitarian behavior. They found support among peers and teachers in case of discrimination and violence. Nonetheless, there are areas of challenges and concerns.

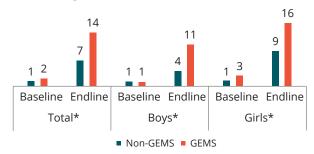
5.1 Attitudes related to Gender and Violence

Positive and significant shift in attitude with respect to gender and violence among students in intervention schools

We saw a significant increase at p<0.01 in the mean attitudinal score of students – both girls and boys – from GEMS schools (40 to 46) than those from non-GEMS schools (40 to 42) from baseline to endline. The net increase in the mean score, adjusted for background characteristics, is significant for both girls [Adj DiD=2.3; p<0.01]and boys [Adj DiD=3.8; p<0.01] (Table 2A in Annexure 2).

Data by attitudinal categories (low, moderate and high) at baseline shows widespread inequitable attitude with only few students in the high gender equitable category. Nevertheless, there is a significant increase in the proportion of students in the high equitable category in intervention schools over time (2% to 14%) than comparison schools (1% to 7%); and even higher reduction in proportion of students in low equitable category - 47% to 35% in intervention, while 49% to 44% in comparison schools.

Figure 2: Proportion of students with high score on attitudinal scale



^{*} Adjusted DID significant at p<0.01

The increase in proportion of students in high gender equitable category is more pronounced among those who attended 16 or more sessions (1% to 17%), than those who attended 11 to 15 (2% to 8%) and 10 or less (5% to 8%). Since GEMS is an incremental intervention, where successive sessions contribute to building a comprehensive understanding on gender and violence, students who have been exposed to more number of session show more change in their thinking toward these issues.

Decline in support with respect to corporal violence among students post intervention

At baseline, 31% students from GEMS schools and 33% from comparison schools disagreed or strongly disagreed with the statement: It is fine for teachers to give physical punishment to students in certain situations. The proportion of such students increased to 56% at endline in intervention schools and 40% in non-GEMS

schools, with a net increase of 17% in GEMS schools adjusted for background characteristics.

Narratives of students also show similar findings with varying articulation ranging from questioning the current forms of disciplining, fear it creates among the students to the possible solution.

I feel that hitting students only harms them, so they should be advised instead. I think that reasoning out is better [...]. And if one doesn't understand then one should make another attempt...Students should not be made do sit and stand as a punishment, as that would only hurt their feet.

Girl, GEMS school, Endline

In many GEMS schools, while students reported a positive change in the attitude of teachers on punishments, and they also noted that it still happens. Some of the students even expressed their helplessness in addressing it. In contrast, students from the non-GEMS schools were hesitant to even broach the issue; and when discussed, they justified the punishment.

Students should be beaten up. They can learn well only if they are beaten. [...] Teachers should scold and beat up a little and they should tell students to study more at home.

Boy, Non-GEMS school, Endline

Decline in acceptance of peer-based violence

A higher proportion of students disapproved of peer-based violence - *In certain situations* it is fine for students to be violent toward each other in school – in intervention schools (40% to 67%) than in comparison (40% to 50%) with net increase of 15% adjusted to background characteristics (p<0.01). Similar changes were noted on the statement related to teasing and labelling. At baseline around 33% students disagreed or strongly disagreed to the statement - Teasing is harmless fun.

However, at endline, 53% students in GEMS and 40% in non-GEMS schools reported so; and the net increase of 13% is significant at p<0.01.

Oualitative data also showed similar narratives from both girls and boys. Girls and boys in intervention schools had unanimously agreed that 'labelling' or 'name calling' was a form of violence. They shared that earlier they resorted to it "in jest" and "to have fun", but now they felt that this is not acceptable in any situation. They also talked about not only changing their individual behavior on this aspect, but also intervened whenever someone in school or in their neighborhood resorted to "labelling". After exposure to GEMS they had also felt that whenever they took any complaint on labelling to the teachers they also intervened positively to give a strong message to students.

Now, I consider it a bad practice, because if someone calls me by some other name I won't feel good about it. Similarly, the other person will also not feel good. I learnt this after GEMS madam told me about labeling. I was told that it hurts the concerned person. Labeling

is violence, because when one labels another person, he/she gets hurt...

Girl, GEMS school, Endline

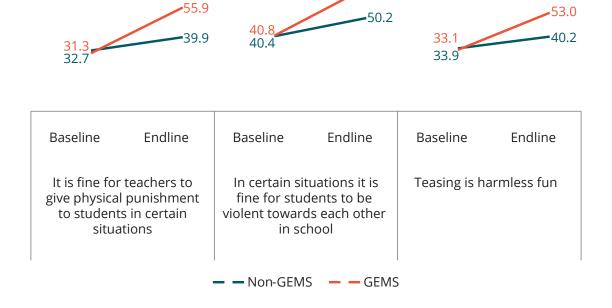
[Teasing] harms both boys and girls. The boy will be harmed because he will learn bad things and he can do anything anywhere, and the girl will be harmed because someone will tease her saying she couldn't do anything. When teased some girls do nothing, while some complain or can slap the boy.

Boy, GEMS School, Endline

In non-GEMS schools, while students agreed that labelling was not good and the other person felt bad, they did not reject it completely or speak of any strong conviction or environment in their schools where other students also had an opinion against it. Majority of girls and boys said that it was fine to tease 'in jest' or 'sometimes' or 'for fun between friends.' They did not see it as form of violence and felt that it may lead to temporary 'anger or sadness' and not to lasting negative emotional impacts as expressed by students from GEMS schools.

Figure 3: Proportion of students who disagreed or strongly disagreed with violence at baseline and endline

66.6



Students call each other with funny names in school. I have never thought anything about labeling. One feels strange when labelled, then one feels okay after getting used to it. One should be called by his/her original name, else other children will hear it, and they will spread it in the whole village. Light fun like this is ok.

Girl, Non-GEMS school, Endline

The trend of change in GEMS and non-GEMS schools in baseline and endline can be seen. in the fact that at baseline, students did not mention or talk about labeling and at the endline, many agreed to have resorted to it, but at the endline in GEMS schools, majority recognized it as form of violence that was unacceptable.

Overall, quantitative and qualitative data show that the program has succeeded in engaging girls and boys to discuss, reflect and question norms related to gender and violence. However, change is slow and still large proportion of students support inequitable norms. It is important to note that a very small proportion of students had equitable gender attitude at the baseline, and probably change is more difficult and time taking when the environment is adverse. With few

alternatives or examples challenging gender norms in their environment, engaging young adolescents to discuss, reflect and alter their thinking seems difficult than in settings where norms are not that rigid. For instance, in Mumbai students had better attitudes at the baseline and experienced larger change at the endline with the same program exposure.

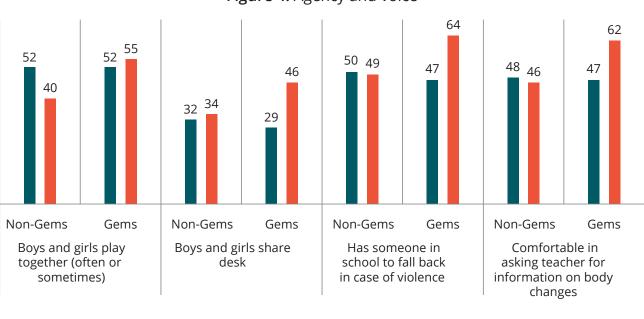
5.2 Agency and Voice

GEMS program has improved communication among peers and between students and teachers, increased comfort in interaction with the persons of other sexes and enhanced agency to seek information and voice their opinion.

Enhanced peer engagement and communication

Gender segregation in seating arrangement, play and basic interaction are some of the ways schools maintain and reinforce gender stereotypes and discrimination. The GEMS program succeeded in breaking the gender segregation to some extent.

Despite increase in age, girls and boys from GEMS schools continued to play sometimes or often (52% at baseline to 55% at endline), whereas there is a significant decline in the



■ Baseline ■ Endline

Figure 4: Agency and voice

non-GEMS schools (52% to 40%). Further, there is a net increase of 16% in proportion of girls and boys who reported sharing desk in the classroom. Proportion of students reported so increased from 29% at baseline to 46% at endline in GEMS schools, compared to a change from 32% to 34% in non-GEMS. Similarly, significantly higher proportion of students from the GEMS schools reported that they have someone in school to fall back in case they experience violence (47% at baseline to 64% at endline), with no significant change in non-GEMS schools (around 50%) overtime.

Narratives of students supported the survey findings and provided more insights in terms of what changed, why and what are the continued concerns.

I am quite positive about friendships between boys and girls and I do not see any harm in the same. Girls and boys can help each other out in studies, and work and play together. Although I have always had male friends. I picked up this concept of healthy male-female friendships from GEMS classes. We learnt in GEMS classes that girls and boys can be friends and there is nothing wrong in it. However, people like to say various unwanted things when they see girls and boys together.

Girl, GEMS school, Endline

Although there was a change in the attitude, students were hesitant to make a change practically as they were yet to sort out the web of confusions and questions in their head around issues such as 'would the girls want to play with boys', 'would the boys give girls same space to play and practice', 'can there be mixed team', 'whether parents will allow girls to go out to play with boys', 'will the girls get time from household chores to play', and 'are girls strong enough to compete or play with boys in the same team.'

The only times boys and girls are seated together in the class is when there is some test. Normally, boys and girls sit separately. In case any boy creates a ruckus in the class, he is made to sit with girls; and, if girls do it, they are made to seat with boys. It is not a punishment; it is only to ensure that they sit quietly. Given authority I will make girls and boys sit together on same bench. What will happen if we sit together? I started thinking this way since I attended GEMS class. I can't change the sitting arrangement, but have discussed this with my friends who also feel the same. I feel it will be fun to sit together. It will also make boys behave properly.

Girl, GEMS School, Endline

On the other hand, students from non-GEMS schools were reluctant to discuss and explore possibility of strengthening relationship between girls and boys. They quoted many reasons for it, such as "being scolded by teacher", "being mocked at by other students by calling girlfriend and boyfriend", fearing harassment by boys", "fearing scolding or compliant from girls even if they got touched accidentally", and "embarrassed to sit together".

Women are supposed to sweep, wash dishes, sow crops and cook meals. All these tasks belonged to women only. Girls can play cricket and football, but I am not very sure. Girls can work on computers and even playing the drum at some kirtan (religious gathering), but about playing outside I am not sure.

Boy, non-GEMS school, Endline

Enhanced communication between students and teachers

Students also talked about improved relationship with teachers. Some of the issues that they were not able to talk to anyone, like bodily changes, now they could talk to the GEMS teachers or some other 'considerate teachers'.

In GEMS schools, 58% students reported being given information on bodily changes at endline, an increase of 20 points from baseline (38%). However, no change was noted in non-GEMS schools. Further, there was significant

net increase of 16% (47% to 62% in GEMS and 48% to 46% in non-GEMS) of students who reported being comfortable in asking their teachers for information on bodily changes in GEMS school. Conversation of bodily changes is indicative of increased communication and trust between students and teachers.

Narratives of girls' and boys' from GEMS school shows some variation in depth and content of interactions between students and teachers. While girls talked about getting a window to talk about issue of body changes with the teachers on day to day basis, boys' narrative is around the fact that they got more information on it through GEMS session and it had created a space for them to broach and discuss these issues with their peers in class or outside, which was not done much earlier.

I can talk freely with a couple of teachers. I ask what I do not understand in studies and ask them to repeat the lesson. I also ask them when I have to take leave from the school. I can't remember whether the subject of the physical change was discussed in my school or not. I have has not spoken to any teacher on this subject. We were told about the physical changes in class VII in the GEMS class.

Boy, GEMS school, Endline

There has been some limited discussion on body changes with one of my teachers. I had attended a session on body mapping conducted by GEMS teacher which I thoroughly enjoyed, though I still want to know more about my body and biological changes in the body. I had also shared this session with my mother and sister and they were happy to hear out.

Girl, GEMS school, Endline

In non-GEMS schools there was no talk about the issue of body changes among peers or any scope or imagination of talking it with teachers. When asked what all can students discuss with teachers, apart from studies? The students mentioned about talking 'about

fights and all'; and seeking permission to go somewhere, asking for leave when they are unwell, complaining to teachers about conflicts with classmates. And teachers usually intervene in such situations when it is brought to their knowledge.

There is no teacher in my school with whom I can talk frankly. There has been no talk about body and physical changes. My brother's wife had told me about periods. I didn't ask my mother, for I felt embarrassed discussing such subjects, what would she think.

Girl, non-GEMS school, Endline

Clearly, the GEMS program succeeded in encouraging girls and boys to reflect and question their perception and behavior toward each other and also toward their teachers; and how these affect their relationship with them.

5.3 Recognition of Violence and **Bystander Intervention**

Enhanced recognition of violence and increase in positive bystander intervention for different forms of violence among students in GEMS schools

When asked about witnessing violence, 43% students from intervention schools reported witnessing physical violence, which increased to 53% at midline and reduced to 46% at endline. In comparison schools, 44% reported so at baseline, 36% at midline and 32% at endline. Similar patterns were observed for emotional and sexual violence. The increase at midline in intervention schools could be due to enhanced recognition of different forms of violence; as is evident from the narratives of students. Narratives of students from GEMS schools show a clear shift in articulation and recognition of violence from baseline to midline, as students who were likely to say that they haven't seen or perpetrated violence at baseline start to narrate incidents in detail and articulate their thoughts and reflections on the incidents; along with the struggles to

change their behavior. Such change is not observed among students from comparison schools who are likely to state that they did not witness or perpetrate violence without much narrative around the issue over time.

Further, those who witnessed different forms of violence were asked about actions they took. Boys from GEMS schools reported increase in positive action in case of physical violence (tried to stop perpetrator or reported to a teacher or principal) [Adjusted DID=10.6%, p<0.01] and reduction in use of violence (hitting or using abusive language against the perpetrator) [Adjusted DID=-14.8%, p<0.01] to stop emotional violence than non-GEMS schools over time (Table 2B in Annexure 2). On the other hand, there was a significant increase in the proportion of girls reporting positive action in case of emotional violence [Adj DID = 9.7%, p<0.01] and decline in negative action (enjoyed or joined the perpetrator) in case of sexual violence [Adj DID = -21.1%, p<0.01] in GEMS schools over time compared to non-GEMS schools.

Increased conviction to intervene in case of violence post GEMS exposure was evident in narrative of most of the students.

I told my friends that they shouldn't tease any

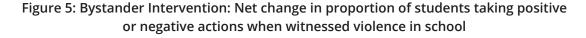
girl, and they shouldn't trouble anyone. [...] Teasing and harassing is violence and it causes trouble to everyone. Boys indulge in labeling in school I tell them that's a wrong thing to do, the person should be called by his name else he feels bad about it... one should not label in jest also.

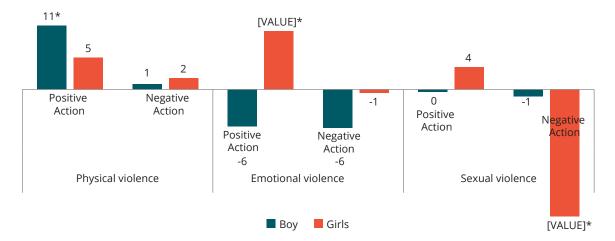
Boy, GEMS school, Endline

A girl from GEMS school narrated an incident of violence that impacted her deeply and she intervened in it despite the impending danger.

I was returning home from school along with my class mate, and we met this group of boys on the way. My friend went to talk to one of the boys in the group, who was her brother-in-law. I felt that her brother-in-law talked really dirty with her, and one of the boys also asked me to join them. I scolded them for their behavior, and dragged my friend away from the spot. Those boys threatened. Then another day the same group of boys called out my name, but by chance, my sir (teacher) came there, and found me having an argument with those boys. Seeing my teacher, the boys ran away threatening me with serious consequences. Later my teacher had inquired about those boys and also scolded me for talking to them. I told him the real story, and how they were harassing me. My teacher had talked to those boys.

Girl, GEMS school, Endline





^{*} Adjusted DID significant at p<0.01

However, not all girls and boys intervened, rather they shared varied emotional expressions and said that they were "scared", "helpless", "pained", "alarmed", or "ran off for the fear of being hit". Nevertheless, they articulated that through the GEMS program they understood that those were violence; and they reflected on these instances more from the point of view of critiquing violence than seeing it as a regular routine issue. On the other hand, students from the comparison schools emphasize more on the nature of violence and justification.

Mild fights in jest and for fun are fine and acceptable as we do not hit so much or so hard, it is just for fun). If someone is just abusing me I would still walk off after warning him but in case someone is hitting me I will not tolerate it as they will think I am weak and next time again target me. I have to protect myself, if possible I will run away to escape but fighting back can also be done.

Boy, non-GEMS, Endline

5.4 Perpetration of Violence

Change in reported perpetration of violence was more pronounced in comparison schools despite no or little change in attitude or overall environment of schools

Significantly lower proportions of students from comparison schools reported perpetrating violence in last three months in school at endline as compared to intervention school. Proportion of such students declined from 49% to 35% in comparison schools, while the change was from 50% to 44% in intervention schools overtime (Table 2C in Annexure 2). A similar pattern was observed for experience of violence from teachers and other students. The decline in comparison schools is intriguing as this happened despite no or little change in attitude toward norms related to gender and violence, particularly corporal punishment,

communication with teachers or comfort with peers. Further, there is no new guidelines, circular or program to address violence in those schools.

The correlation between attitude and perpetration of violence overtime presents an interesting pattern – in intervention schools, students who reported a positive shift in attitude toward violence also showed a decline in perpetration of violence demonstrating an alignment of thought and action; whereas in comparison schools there is decline in perpetration **irrespective of attitude.** In intervention schools, among those who supported the statement on peer-based violence (In certain situations it is fine for students to be violent toward each other in school) half of them reported perpetration of violence at baseline. At endline, a shift in behavior was seen of those students whose attitudes began to shift: those who remained supportive of peerbased violence, 48% reported perpetrating violence, against 40% among those who moved from being supportive to questioning peer-based violence. However, in comparison schools, despite continuing to be supportive of peer based violence, only 36% reported perpetrating violence at endline against 50% at baseline. Moreover, the students whose attitudes became adverse over time (disagreed at baseline but agreed at endline), still reported decline in perpetration at endline (48% to 39%) (Table 2D in Annexure 2).

The students who showed change in attitude on emotional and physical violence talked about how they had positively changed their own behaviors in responding to situations that could lead to violence. They also questioned use of violence while playing games for fun and also discriminating between peers on the basis of caste in cases where an injured student (during game) needs help.

Boys in school sometimes play a game where they compete to run after each other and hit. Once a friend hit me very badly in that game. I asked them what is the need to hit so badly and the need to play such a game at all that involved hitting. Even if the game involves violence it can be played with compassion.

Boy, GEMS school, Endline

The significant change in behavior among those with no attitudinal change toward peerbased violence in comparison schools requires further exploration as it is not aligned with findings of other similar interventions; or even the GEMS evaluation in Mumbai. More exploration, both in literature, and with the GEMS schools of both intervention and comparison arms is needed to understand the relation between attitudinal and behavioral change.

While conducting additional research to understand the different factors that can influence attitude and behavioral change in violence prevention programs, it is also important to explore whether messages that 'violence is not acceptable behavior' (which has gone out to both intervention and control schools) could actually have resulted in a decline in reporting of incidents, but not decrease in actual perpetration. Low reporting of violence can also happen due to the various other factors including effect of repeat surveys;

use of novel tools like tablets; buzz around the program that compares schools; social desirability to report against violence and so on.

It is likely that, in intervention schools, this effect is mediated by the accompanying messages and atmosphere created to recognize and talk about violence, rather than a fear of not reporting such incidents. The increased reporting on violence at midline in intervention schools seems to indicate this trajectory and is consistent with the results from previous studies. The findings from the qualitative cohort study also demonstrate the processes and pathways by which children struggle to give up violent behavior. As noted above, these layered narratives are articulated by students in GEMS school, but not in comparison schools. One such narrative illustrates this:

I know about violence, but can't stop being violent when in anger.... I never start a fight with my sister; it's she who provokes me; and when she starts hitting me, I cannot hold my hands back. I know that it is not right to hit her back, that only makes matter worse. Earlier, I used to think that since sister was hitting, it's OK to hit back. But I don't think so now. My GEMS madam had told that finding a solution was better than using violence.

Girl, GEMS school, endline



6. REFLECTION OF **TEACHERS AND** PRINCIPALS ON EFFECT OF GEMS PROGRAM IN THEIR PERSONAL AND **PROFESSIONAL LIVES**

As part of the process documentation, teachers and principals from 10 schools were interviewed. Their reflection and articulation are broadly grouped under three heads - value and need for GEMS program, transcending personal and professional lives, and initiatives taken-up at school level.

6.1 Value of and Need for GEMS **Program**

Many of them felt that GEMS provided a 'potent instrument' to talk about gender discrimination – a concept they knew about but did not understand in reality.

Earlier we would only read about concepts like gender equality etc. in books, but now with GEMS, there is an opportunity to put this into practice.

Male teacher, Ranchi

One of the principals felt that the program was helpful in creating an environment of nondiscrimination, interaction and non-violence. He stated how just articulation of these words around equality can have a positive impact on the children; and older children demonstrating such behavior (questioning inequitable work allocation or intervening in case of violence) can serve as role models for the younger students.

6.2 Transcending Personal and **Professional Lives**

Teachers and principals shared their journey in relationships at home with spouse and children, and also in their professional lives with fellow teachers – with some variation

between male and females. It was interesting to note that the female teachers talked about understanding the implications of gender in their professional and personal lives, while male teachers mainly talked of changes they had made in their personal lives with spouse and children. A large part of the change was articulated around the gender division of labor- a core concept of gender based discrimination and inequality.

Recognizing and understanding the subtle and obvious manifestations of gender inequality in the professional sphere

Some female teachers spoke about re-visiting their situation and the division of work in school among teachers through the newfound gendered understanding. For example, one of the female principals shared that after she was promoted as school principal her fellow male teachers disregarded her official position and considered ineffective since she is a female. Her analysis extended to the division of tasks in the school. She says that she understands how male teachers always took advantage of their social status as 'males' and remained absent from duties like cleaning school campus and other routine care-taking roles for students in the school. They shifted these responsibilities to female teachers including her even though she was a principal. Exposure to GEMS gave her an understanding how gender based discrimination was stopping her from exercising her authority as a principal and that she was undermining herself.

The need for women to recognize the social expectation and entitlement framework is very important, as that is used to make women feel guilty, expressed by another female teacher.

Attempting to change gender norms at home - the gains and challenges

Applying gender analysis to household division of work is a recurrent theme among the narratives of teachers. A female teacher

shared the excitement of initiating discussion around equality among her children, but soon realized that she had to match convincing arguments as she faced questions and resistance from her son; and that the new norms may take time to establish.

Once my son questioned me- you talk about eliminating discrimination, you tell me to wash my own plate – "girls' work"- but you do not tell sister to go to the grocery shop or to the bus stand. Is this not discrimination with me? . [...] I have been continuously sharing [with him] that boys also get discriminated against. I shared the GEMS survey where we learnt that both girls and boys face violence and in fact boys face even more violence than girls.

Female teacher

Male teachers shared how GEMS has forced them to be aware; and confront their own behavior- behavior that they used to view as 'natural'.

At home I used to fight with my wife and children. Now after attending GEMS trainings and conducting the sessions myself, I try to talk them properly. If the children have done some mistake, it is much better to talk and explain their mistake to them instead of shouting and getting physically violent...Overall, my way of speaking, tone has changed.

- Male teacher

However, a few teachers felt that there was no reflection of GEMS in their personal lives as they believed there was no discrimination in their families; and that this is an issue related to poor and illiterate.

Areas of confusion: the nuances of understanding 'equality' in division of work

Many of the teachers who spoke of inherent gender equality in their homes and lives, found it difficult to disengage themselves from the vocabulary of 'girls work' and 'boys

work'. Deeper discussion revealed that household chores and caretaking roles were regarded as "girls work" and bread winning roles outside the house as 'boys work', though they maintained that both should share these responsibilities as needed. Many of them saw the act of taking equal responsibility of doing household chores as a 'support' to their wife, and not as their 'own work'.

Clearly, as perspectives around gender begin to change, deeper and ongoing discussion is needed to sharpen the arguments and embody 'equality' in letter and spirit in everyday life.

Developing a more comprehensive understanding of violence and its myriad forms

The two most oft repeated impacts of the GEMS program were around the understanding of violence experienced by boys, and the recognition of subtle forms of violence.

Teachers have also started to recognize that "labelling" is a form of violence, which used to be perceived as a harmless fun earlier. They also reported a change in the way they deal with it now.

I tried to talk to my friends about labelling but they do not respond to my talks. They feel that it is convenient and enjoyable to give labels to people as it brings in an element of fun. [...] But I believe that labelling not acceptable"

-Male teacher

Two schools reported taking proactive measures to stop students from using labels to address each other.

Increased comfort and conviction in talking about bodily changes

The third area that teachers spoke of was related to sessions on bodily changes and personal hygiene; and had varied reactions. Many of the teachers supported the necessity of building students' understanding on this

issue. Perhaps the most insightful connection between sexuality and violence was articulated by a female teacher who shared an incident of resistance, where a father confronted her with a complaint of teaching 'wrong things':

.... based on his daughters' sharing the father came and complained that in body mapping session we were teaching wrong things. I asked for opinion of students on this issue (without naming the student). I was overwhelmed to see that the class was in support of me and the content...... there was nothing wrong...had we not known the right language to address our body we would have continued to use abusive words.

Female teacher

However, the issue of talking about bodily changes remains a contentious one, with many teachers being hesitant in talking about the issue openly. They also share their concerns about reactions from the community and the family, in spite of knowing that this is included in science subjects in schools.

6.3 Initiatives at the School Level

In schools where the principals have endorsed the GEMS program, small yet significant ripples being seen at the institutional level in a few schools are around issues that are core to GEMS program.

Teachers and principals, at their own took messages of gender equality beyond the GEMS classes through school's morning assembly session and while teaching other subjects. Across the schools, teachers and principals talked about the need to break the norms of 'who does what work' among teachers and students. To begin with, GEMS teachers and principals started allocating similar tasks to girls and boys, such as cleaning the school or hosting guests with water and refreshments. In work allocation in Bal Sansad instead of giving 'softer' portfolios such as 'sanitation', 'nutrition' and 'cleanliness' to girls

and the leadership roles in capacity of prime minister or deputy prime minister to boys, allocation was done based on capacity and skills. Two schools took a big leap by emulating the democratic electoral process to give all interested boys and girls an equal chance to get into leadership roles. These processes also showed glimpses of more camaraderie and cooperation between boys and girls.

Another effort was to remove gender segregation in seating arrangement and sports to create space for better peer-relationship between girls and boys. Although, there is a recognition of need to remove the segregation among GEMS teacher, they fear of resistance from other teachers and parents.

7. CHALLENGES, **LEARNING AND THE WAY FORWARD**

Program implementation was not without challenges; implementation of GEMS required confronting deep-set biases, and upsetting the well-established rules of society besides dealing with external resistance from parents, teachers and in some schools from students. Against the operational challenges of paucity of teaching staff or the burden of academic and non-academic work on teachers, GEMS continually dealt with challenges at different levels. These challenges have implications for strengthening the GEMS program and planning for additional activities:

• Resistance from teachers - Several teachers shared that despite school level meetings, they experienced resistance and were mocked at by other teachers. Teachers suggested that focused orientation meetings and short trainings need to be organized for other teachers to get wider support for the program. The lack of recognition and perspective at the school level also impacts the trust that students have to approach

other teachers for problems, or issues related to violence.

This implies more intensive school-level engagement through regular school orientation and discussion programs and advocacy with the state to have gender orientation of all the teachers within capacity building and training.

Varied participation of students –

Students are irregular in classes for various reasons including work at home or field, and employment. Only half of the students reported attending 16 or more classroom sessions out of 23. Another challenge was to get the students to talk and open up – a behavior that is not traditionally encouraged in school. The existing pedagogy in the education system does not encourage students to question the given and also speak out. Teachers also shared that the students usually speak very less during other classes as well and since this subject was so new the initial inhibition to speak freely was hard to break. But slowly the students started to engaging in discussions. The hesitation among boys and girls was not

uniform, as at some places the girls initially were more vocal than boys and at other places it was other way round.

Continued engagement on these deeprooted issues is needed to increase comfort of both teachers and students for having such discussions. In addition, repetition and increased intensity of messages in various forms may help to enhance exposure to GEMS content, alongside using this evidence to support advocacy on school regularity.

• Operational issues – Paucity of time to prepare for a GEMS session, overburden of academic and administrative work within the school and beyond (government's programs like election duties and surveys) and shortage of teaching staff came up as other operational issues within the education department that were posing a challenge to implementation of the program. This has also meant that the program has not been transacted with the same intensity or acceptance in all schools. Nevertheless, as larger infrastructure and human resource



related challenges are unlikely to reduce immediately, the first phase of GEMS demonstrates the feasibility of undertaking a program to generate discussion around gender and violence within school settings with scarce resources.

As the program is increasingly accepted to be a tool to challenge discrimination and violence, there is need to consolidate the gains made; develop strategies to deepen the program and enhance its effect; and build a systemic response to gender and violence within the institutional and policy framework.

 Choice of teachers to lead GEMS in schools - The experience of engaging with teachers from government institutions for leading GEMS sessions has been a mixed bag of challenges and breakthroughs. Despite the existing staff crunch and setting aside time from the academic session for their training, the schools tried their best to designate two teachers. However, the selection criterion was not based on their interested or orientation toward the issues. Moreover, many schools hesitated in selecting male teachers as they assumed gender issues are a domain of women's issues and thus, they would be able to handle those better. Thus, more female than male teachers were allocated to lead GEMS. The openness to learn and question discrimination and violence in their own lives or in the education system was not the same for all. It took some time for them to come to terms with the fact that the GEMS program is about dismantling the barriers of hierarchy from the learning environment where students were active learners than passive receivers of knowledge. Despite some drop outs and continued resistance, a fair lot of teachers emerged as champions of change and started from self, and led by example in schools as well.

It has been felt for a long time that choice of teachers who lead the GEMS in schools should be carefully made and should not be left to open discretions and should involve a dialogue at the school with headmasters and teachers. Since it is not possible to train all teachers in one school at one go, however the idea is to leverage the skills of the trained lead teachers to take the message to other teachers.

• Resistance from parents - Initially the incidents of parents' resistance were around allowing their wards to participate in the baseline survey of GEMS, as from other schools where survey happened earlier the message had spread about the students being exposed to "questionable content" through the survey. Later this resistance saw a new form at some sites where the parents objected to their wards participating in the GEMS sessions. As the initial resistance diminished, in some schools, parents started expressing unhappiness as their children became outspoken about gender based discrimination at home and they started to question behavior of their parents. Connecting with parents through the GEMS Diary, school and community based campaigns have been successful platforms, though limited in their scope to reach out to large numbers and have in-depth interactions on issues.

Component on parental/community engagement needs strengthening. An ideal violence prevention model would have equally intense interventions at both school and community level such that students and key adults in their lives are exposed to similar messages on gender and violence prevention. More regular community based events, schoolcommunity interactions, and engagement with community groups of men and women can be potential strategies. A comprehensive approach, partnerships and resources for inclusion of this component need to be drawn and developed based on established successful models.

Although there were several challenges, both institutional and individual, the

implementation of the program has suggested some key learnings as well, that can help to shape and strengthen school based intervention to prevent violence:

- Investment in skills on positive discipline
- With an enhanced understanding of forms and issues related to violence among teachers and students, teachers have started restraining themselves from using violence to discipline students; and expressed the need to have skills and tools to manage students and maintain discipline.
- Need for a response system to deal with varied complaints of violence – Teachers and principals expressed their comfort in dealing with fights between students; and recognized their inability to deal with issues of sexual violence, which needs more specialized skills. It is, therefore, important to have a response system to deal with the different types of violence experienced in schools.

Enhancing capacities of teachers through focused training on alternate ways of disciplining and providing appropriate first level response to instances of violence is needed, besides exploring a more systemic reporting and referral mechanism for addressing violence.

 Beginning early and continue GEMS for longer - At several time points during interaction with students as part of indepth interviews and classroom interaction with students and teachers the need for continuing the program for higher classes and also starting the program from class 5 echoed across various intervention schools. Teachers expressed that as the students graduate to higher classes they face many more issues related to discrimination and violence, particularly girls, when they are making a career choice after school or resisting early marriage. GEMS program will be something for them to fall back on as it will give them a space for peer group

discussion and interaction with teachers when faced with varied realities of their life for continuing education or choosing a livelihood path. A longer exposure to the program through the growing years, and adoption of a complete school approach will truly make conversations around gender equality and non-violence normative in the school.

Beginning early was seen as a need by students who felt that they start feeling the pressure of discrimination and violence from teachers as the curriculum gets tougher for them to cope with and also teachers felt that before the students step into turbulent years of adolescence they should be exposed to the issues of peer pressure, violence and discrimination to grow up in a more equitable environment.

As part of GEMS the issue around starting earlier and continuing till the secondary school is still under exploration. Since the curriculum and the program strategy has flexibility to be adapted to varied contexts across country and also in urban and rural contexts, it also gives space for making innovation for different age group specific needs of learning.

Overall, the GEMS program succeeded in engaging teachers and students in discussion, reflection and questioning gender discrimination and violence. The acceptance of the program in itself is a positive sign as it opens up institutional spaces and frameworks for taking forward the discourse on gender and primary prevention. The processes of questioning norms are arduous and slow- and the discussions show both initial significant steps toward change; and the inherent confusion and rejection of newer ideas. Moving forward, there is need to consolidate the gains made; and build a systemic response to gender and violence within the framework of institutions and policies related to education.

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ANNEXURE 1: SAMPLING AND MEASUREMENTS

7.1 Sample Size Calculation

To calculate the required sample size, following formula (Hayes & Bennet, 1999) was

$$c = 1 + (z_{0/2} + z_{\beta})^{2} [(\pi_{0}(1 - \pi_{0})/n) + (\pi_{1} (1 - \pi_{1})/n) + k^{2}((\pi_{0}^{2} + \pi_{1}^{2})]/(\pi_{0}^{2} - \pi_{1})^{2}$$

where, c=required number of clusters (schools in this case)

n= No. of individuals to be sampled from each cluster (students in this case)

 π_1 and π_0 are the true proportions in the presence and absence of the intervention respectively

k is the coefficient of variation of proportions between clusters within each group.

The value of π_1 and π_0 were taken from the Mumbai pilot phase. Considering $\pi 0$ to be 40% (proportion of students who reported perpetrating violence against other students in school in last three months), a sample of 1600 students (40 schools with 40 students from each school) in each arm would be sufficient to detect a 6 percentage point reduction at 80% power and 5% level of significance. For this calculation, we used intra-class correlation of 6%.

As we also intended to estimate change separately for girls and boys, the same sample of 800 girls and 800 boys in each arm would be sufficient to detect 7 percentage point reduction. Being longitudinal design and high school drop-out, sample size increased by 20%

to factor in attrition. Thus, the required sample size at baseline was 4000 - 50 students (25 girls and 25 boys) each from 80 schools.

7.2 Sampling Technique

A multilevel sampling technique was used for the selection of schools and students in the study. At the first stage, 3 administrative blocks were purposively selected from each of two districts in consultation with the district authorities.4 In these blocks, we identified all the upper primary schools with at least 50 students in classes 6 and 7. There were a total of 45 and 57 such schools in Khunti and Ranchi, respectively. Subsequently, 40 schools were randomly selected from each district; and randomly allocated to intervention and comparison arms in each district.5

The next level involved selection of students using stratified sampling design. Using the attendance register, students in each school were classified under four strata – class 6 girls, class 6 boys, class 7 girls and class 7 boys. From each stratum, 15 students were selected for the survey. After obtaining parental consent and assent from the students, students were recruited for the study.6

7.3 Sample Achieved

At baseline, 4000 students - 2215 girls and 1785 boys – participated in the survey. As expected, 931 students lost to follow-up due to several reasons including drop-out from the study schools, absence during the three revisits and refusal. The breakup of 3069 students who participated in all three rounds of data collection is:

Some of the blocks of Khunti and Ranchi districts are affected by Naxalite movement. These groups often use violent means to fight against government. For this study, we have selected blocks which are safe and not under the hold of Naxal groups

⁵ Researcher not directly involved in the project generated sequence and allocated schools in two study arms.

⁶ As size of classes and proportion of boys and girls in each school were not same, weight was calculated. Estimates presented later are based on weighted data.

District		Base	line (Num	ıber)	Three r	ounds (N	umber)	Continuation Rate (%)		
		Inter	Comp	Total	Inter	Comp	Total	Inter	Comp	Overall
Total	Girl	1099	1116	2215	883	881	1764	80	79	80
	Boy	884	901	1785	640	665	1305	72	74	73
	Total	1983	2017	4000	1523	1546	3069	77	77	77

7.4 Measurements

The evaluation was designed to measure the following outcome indicators:

- Mean score on gender attitudinal scale
- % of girls and boys with high score on gender attitudinal scale
- % of girls and boys who disagreed with school-based violence
- % of girls and boys who reported perpetrating violence on other students in last three months
- % of girls and boys who reported intervening when witnessed violence
- % of girls and boys who reported experiencing of violence in last three months
- % of girls and boys who reported playing or sharing desk with person of other sex
- Teachers' reflection on personal change

7.4.1 Construction of attitudinal scale

To assess students' attitude toward norms related to gender and violence, 30 statements

on gender role and responsibilities, gender attributes, role in decision making around marriage and justification of violence were given; and students were asked whether they strongly agree, agree, disagree or strongly disagree to these statements.

Response supporting equitable norms received highest score of 4, while that of inequitable received 1. For instance – strongly disagree with 'A wife should always obey her husband' was given a score of 4, disagree 3, agree 2 and strongly agree 1. Then, using factor analysis on the baseline data 20 statements were selected for the construction of an attitudinal scale (Cronbach Alpha = 0.87). Subsequently, total score for each student was calculated by adding their score for each of the 20 statements. Thus, the score of students ranged between 20 and 80. Using the total score, students were, then, categorized in three groups - low with total score up to 40, moderate with score from 40.1 to 60, and high with score 60.1 or more.



Statements used to Construct Attitudinal Scale

Gender Role and Responsibilities

- For women, taking care of the house and children should be more important than her career
- The traditional view that a man is the head of the family and responsible for providing economically for the family is still correct
- 3. With all matters in the family, it is necessary to discuss between husband and wife, yet the final word should be of the husband's
- Men should have more rights to make household decisions
- 5. Only men should work outside home
- Boys should not sweep and cook at home
- 7. Girls should be allowed to decide when they want to marry
- 8. Girls should have a say in choosing their groom for marriage
- 9. A girl should have a right over parents' property even if she is given a dowry
- 10. Since girls have to get married, they should not be sent for higher education

Gender Attributes

- 11. Men need more care as they work harder than women
- 12. A wife should always obey her husband
- 13. Boys are violence by nature
- 14. Girls are tolerant than boys by nature
- 15. Boys are naturally better than girls in sports

Gender Based Violence

- 16. It is girl's fault if a male student or teacher sexually harasses her
- 17. A woman should tolerate violence in order to keep her family together
- 18. Violence against women is acceptable in some situations
- 19. If my mother cheated on my father, then It is OK for him to hit her
- 20. Teasing is harmless fun



7.4.2 Experience and perpetration of violence

In the surveys, students were asked if they experience acts, listed in the Figure 1, in the last three months in school – separately from their teachers and other students. These acts were grouped under physical, emotional and sexual violence.

Experience of physical violence was coded as 1 if a student reported experiencing one or more acts mentioned under physical violence in school in last three months, and 0 if he/ she reported experiencing none of those acts. Similarly, variables on emotional and sexual violence were created.

Students were also asked if they perpetrated these acts against any student in school in last three months.

7.4.3 Bystander intervention

Students were asked if they witnessed specific acts of violence in school in last three months and action they took. Possible responses included - did nothing, watched and enjoyed, joined the one doing this, felt uncomfortable, asked the person doing this to stop, used abusive language against person doing this, hit



the person doing this, reported this to teacher or principal. Response was categorized into four groups - no action (did nothing, felt uncomfortable), negative action (watched and enjoyed, joined the one doing this), used violence to stop violence (used abusive language against person doing this, hit the person doing this), and *positive action* (asked the person doing this to stop, reported this to teacher or principal)

Table 1A: Forms of violence captured in the study

Physical violence	Emotional violence	Sexual violence
 Physical violence Beat/hit/slap/kick or pull hair Hit with an object Threaten with a knife/weapon Ask other students to beat, hit or slap (asked only with reference to teachers) 	 • Threaten verbally • Pass comments or label based on body or character or caste • Use humiliating/insulting language • Ignore or deliberately keep out of activities • Turn girls or boys against you/someone • Ask to stand on bench/corner (asked only with reference to teachers) • Made to do 'uthak-baithak'/murga banaya'⁷ (asked only with reference to teachers) 	 Pass sexual comments, whistle or show sexual photos or videos Kiss or fondle or force to do these against wish Expose body Stalking Force himself or herself
,	• Lock in room/toilet	

⁷ Uthak-baithak (sit-ups) and murga banaya (students are made to hold their ears and sit in a position imitating a hen) are forms of punishment used by teachers to discipline children

ANNEXURE 2: TABLES

Table 2A: Attitude toward norms related to gender and violence

Mean attitudinal score and proportion of students distributed by attitudinal categories at baseline and endline.

	Total				Boys				Girls						
	Base	line	ne Endline		DID	Baseline		Endline		DID	Baseline		Endline		DID
	Non- GEMS	GEMS	Non- GEMS	GEMS	DID (BL-EL)	Non- GEMS	GEMS	Non- GEMS	GEMS	(BL-EL)	Non- GEMS	GEMS	Non- GEMS	GEMS	(BL-EL)
Mean Gender Attitude score	40.0	40.5	42.4	45.9	3.0**	39.8	40.2	41.5	44.6	3.8**	40.1	40.8	43.2	47.1	2.3**
Attitudinal categories															
Low	49.1	47.0	44.4	34.6	-8.7**	52.0	48.0	46.8	39.3	-8.3**	46.7	46.2	42.3	30.6	-9.1**
Moderate	49.6	51.0	49.0	51.7	2.7	46.8	51.0	49.3	50.0	0.3	51.9	51.1	48.7	53.2	4.6
High	1.3	2.0	6.6	13.7	6.0**	1.2	1.1	3.9	10.7	8.0**	1.4	2.7	9.0	16.2	4.4**

Note: DID estimate are calculated after matching the characteristics age, sex, caste, religion, father's education, mother's education, access to TV, access to mobile phone, internet use, exposure to parental violence and district of residence; Significant at **p<0.01; *p<0.05

Table 2B: Bystander intervention when witnessed violence

Proportion of students who witnessed different forms of violence in school and took action school in last three months at baseline and endline.

	Base	line	Endl						
	Non-GEMS	GEMS	Non-GEMS	GEMS	DID				
Total									
Physical violence									
Positively intervened	50.1	49.5	64.0	69.5	7.7**				
Negative action	21.3	20.6	18.9	17.3	1.2				
Used violence to intervene	16.2	15.8	17.3	14.0	1				
Emotional violence									
Positively intervened	39.4	46.4	62.8	66.6	0.9				
Negative action	28.0	26.1	22.4	17.1	-3.6				
Used violence to intervene	20.7	17.1	21.2	15.6	-3.2				
Sexual Violence									
Positively intervened	38.7	39.5	51.4	59.4	0.9				
Negative action	32	34.9	31.3	21.7	-6.8*				
Used violence to intervene	25.3	17.9	27.6	16.7	2.5				
		Boy							
Physical violence									
Positively intervened	49.8	51.0	61.0	66.3	10.6**				
Negative action	23.6	23.4	21.3	23.4	0.9				
Used violence to intervene	18.4	18.5	18.2	17.4	1.6				
Emotional violence									
Positively intervened	40.0	46.3	64.5	62.0	-6.1				

	Baseline		Endl	Endline		
	Non-GEMS	GEMS	Non-GEMS	GEMS	DID	
Negative action	28.8	30.1	22.3	21.0	-6.4	
Used violence to intervene	17.1	15.6	25.0	11.9	-14.8**	
Sexual Violence						
Positively intervened	40.0	40.8	50.0	55.0	-0.4	
Negative action	38.8	38.5	28.4	26.4	-1.1	
Used violence to intervene	28.2	19.7	28.0	15.9	-1.6	
		Girl				
Physical violence						
Positively intervened	50.4	47.9	66.2	71.5	5.3	
Negative action	19.2	17.9	17.1	13.4	1.9	
Used violence to intervene	14.1	13.2	16.7	11.9	0.9	
Emotional violence						
Positively intervened	38.7	46.4	60.8	70.4	9.7**	
Negative action	27.1	21.7	22.6	13.8	-0.5	
Used violence to intervene	24.8	18.7	16.6	18.6	7.7*	
Sexual Violence						
Positively intervened	37.3	37.7	53.0	63.7	3.7	
Negative action	24.7	30.0	34.7	17.2	-21.1**	
Used violence to intervene	22.3	15.4	27.2	17.5	7.9	

Note:

Positive action – if student reasoned with perpetrator or reported to a teacher or principal **Negative action** – if student watched and enjoyed, or joined the perpetrator Used violence to stop violence - if student used abusive language or hit the perpetrator

Note: DID estimate are calculated after matching the characteristics age, sex, caste, religion, father's education, mother's education, access to TV, access to mobile phone, internet use, exposure to parental violence and district of residence; Significant at **p<0.01; *p<0.05

Table 2C: Perpetration of violence - Proportion of student who reported perpetrating violence in school against other students in last three months over time

	Baseline		Midline		Endlir	ne	DID	DID
	Non- GEMS	GEMS	Non- GEMS	GEMS	Non- GEMS	GEMS	(BL-ML) ⁸	(ML-EL) ⁹
Physical	35.3	36	26.8	36.8	24.4	31.7	10.9**	-3.5*
Emotional	34.6	34.7	27	36.6	21.2	30.7	10.6**	-1.5
Sexual	22.5	22.8	15.1	19.9	14.6	19.9	7.1**	-1.5
Any form	49.4	49.8	38.2	49.1	34.7	44.4	11.0**	-1.9

Note: DID estimate are calculated after matching the characteristics age, sex, caste, religion, father's education, mother's education, access to TV, access to mobile phone, internet use, exposure to parental violence and district of residence; Significant at **p<0.01; *p<0.05

⁸ Difference in differences (DID) from baseline to midline

⁹ DID from midline to endline

Table 2D: Proportion of students who perpetrated violence in school in last three months at baseline and endline by attitude toward peer-based violence

		In certain situation it is fine for students to be violent toward each other in school							
Perpetration of		Agreed at BL	Agreed at BL & EL	Agreed at BL & Disagree at EL	Disagreed at BL	Disagreed at BL & Agreed at EL	Disagreed at BL & EL		
Apytyiolopco	Non-GEMS	50.0	35.6**	31.6**	47.9	38.9*	33.7**		
Any violence	GEMS	49.6	48.5	39.8**	48.8	53.6	42.5*		
Physical	Non-GEMS	36.0	23.8**	22.5**	33.1	27.2*	26.6*		
violence	GEMS	35.9	36.6	25.7**	36.1	39.6	32.4*		
Emotional	Non-GEMS	35.1	23.7**	17.3**	34.4	21.1*	19.7**		
violence	GEMS	34.4	36.2	23.4**	34.2	39.6	29.8**		
Sexual	Non-GEMS	23.2	17.2**	10.5**	20.7	14.9	14.0**		
violence	GEMS	21.9	25.5*	14.4**	22.0	27.2	15.1**		

Note: Proportion at endline is compared with baseline for GEMS and non-GEMS schools separately using z-test. Significant at **p<0.01; *p<0.05







ICRW Asia Regional Office C-59, South Extension, Part II, New Delhi - 110 049 Tel: 91-11-46643333 Email: info.india@icrw.org Website: www.icrw.org/asia ICRW Headquarters 1120 20th St NW, Suite 500 North, Washington, D.C. 20036 Tel: 202.797.0007 E-mail: info@icrw.org Website: www.icrw.org