GENDER & ADOLESCENCE: GLOBAL EVIDENCE

Supporting girls' education: an evaluation of 'Room to Read' in Nepal

Emerging baseline findings

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Disclaimer

Gender and Adolescence: Global Evidence (GAGE) is a nine-year longitudinal research programme building knowledge on good practice programmes and policies that support adolescent girls in the Global South to reach their full potential.

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Acronyms and abbreviations

ADAP	Adolescent Development and Participation
AIDS	Acquired Immune Deficiency Syndrome
ASER	Annual Status of Education Report
CAPI	Computer-assisted personal interview
CBS	Central Bureau of Statistics
CREHPA	Center for Research on Environmental Health and Population Activities
GAGE	Gender and Adolescence: Global Evidence
GEP	Girls' Education Program
CAPI	Computer-assisted personal interviews
HIV	Human Immunodeficiency Virus
IPV	Intimate partner violence
MOHP	Ministry of Health and Population
NGO	Non-governmental organisation
NPC	National Planning Commission
ODI	Overseas Development Institute
PPI	Poverty Probability Index
PPP	Purchasing power parity
RtR	Room to Read
SM	Social mobiliser
SRH	Sexual and reproductive health
UNCRC	United Nations Convention on the Rights of the Child
UNDESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organization

Executive summary

Background and report objectives

Nepal, a small mountainous country situated between China and India, is one of the world's poorest countries. Of its nearly 30 million inhabitants, adolescent girls are amongst the most disadvantaged. Due to a traditional preference for sons, which first manifests itself soon after children are born but which is amplified as they grow up as a result of increased pressure to conform to gender norms, adolescent girls have less access to secondary schooling than do boys, face a variety of restrictions associated with menstruation, are highly vulnerable to child marriage, and have limited access to mobility and decision-making. Room to Read, a US-based charity, is working to address these disadvantages by focusing on literacy and gender equality in education in Nepal.

This report provides preliminary findings from the baseline survey of Room to Read's Girls' Education Program evaluation, led by Emory University and Nepal's Center for Research on Environmental Health and Population Activities (CREPHA) of the Gender and Adolescence: Global Evidence (GAGE) consortium. The Girls' Education Program fosters adolescent girls' educational success and broader development through regular girls'-only life-skills classes, careful monitoring of girls' at-risk status, group mentoring for girls that is bolstered by one-on-one mentoring if a girl is identified as being at risk, educational sessions aimed at caregivers, community outreach, and need-based educational material support for the poorest girls. This evaluation aims to determine the short- and long-term impacts of the programme on adolescent girls' capabilities, including school retention, progression and performance, life skills development, empowerment, voice and agency.

Methodology

Evaluation of the Girls' Education Program, which is quantitative and quasi-experimental, is taking place in Nepal's Nuwakot and Tanahun districts. The final baseline sample included 571 girls, aged 12-14 (or enrolled in 6th grade), who are participating in the programme at one of 24 schools (12 per district). It also included, as a control group, 1,126 girls the same age who live in randomly selected adjacent areas and are not participating in the programme.

Data was collected between July and September 2018 by Nepali female enumerators who had been carefully trained in survey administration and ethics. Face-to-face interviews were computer-assisted via android tablets (where connectivity allowed) and with paper-based forms (where connectivity was absent). While interviews were conducted with girls as well as with their caregivers and school administrators, this report focuses on the findings from core adolescent respondents.

Surveys completed by adolescent girls included 18 modules encompassing topics ranging from educational experiences and outcomes to gender attitudes and marriage aspirations. Questions were drawn from previous research with Nepali adolescents and validated youth development scales but also included novel questions designed for this study (e.g. those on caretaker/daughter social networks). Care was taken to ensure that questions were framed in ways that make data comparable to that being collected in the other GAGE core study sites.

Key findings

Education and learning

At baseline, adolescent girls in the intervention group and the control group were similar in terms of educational aspirations, access and outcomes. Aspirations were extremely high. Over 70% of girls aspired to post-secondary education—with over 40% wanting to complete a bachelor's degree and over 30% aiming for a master's degree. Nearly all girls (99%) were confident in their ability to meet their educational aspirations.

Overall, girls' attendance was also high. Over the last two weeks, the median number of days missed by girls in both groups was zero. That said, 30% of girls had missed at least one day. The most common reasons that girls missed school were illness or disability (themselves or someone else in the household), a need to help with farm work, social or cultural reasons, and lack of interest in education. While previous research has documented that Nepali girls are quite likely to miss school due to menstruation, less then 1% of girls in our baseline sample reported an absence due to menstruation—despite the fact that nearly half (47%) reported having their menses.

Maths and reading outcomes, which were assessed with a simple tool designed for developing contexts, were also similar across groups. In terms of maths, the average girl scored 4.4/5, meaning that most girls were comfortable with subtraction and some were moving on to addition. In terms of reading, the average girl scored 4.5/5, meaning that girls were comfortable reading either short paragraphs or longer stories.

Health and sexual and reproductive health

While over two-fifths of girls (42%), across both groups, had participated in an activity aimed at improving their health or nutrition knowledge over the last year, few (17%) had actually accessed health or nutrition support—likely due to the fact that adolescents are generally healthy. More interestingly, over a quarter of girls (26%) reported that they had some functional difficulty in performing routine tasks, most often reporting problems with memory or concentration. About 2.4% had significant difficulty with routine tasks.

While only half of the girls in the sample had begun menstruating, the majority (80%) reported at least some knowledge of the menstrual cycle. However, girls' knowledge was fragmented and thin. Nearly one-fifth of girls (17%), for example, believed menstruation to be a sign of disease and another tenth (9%) reported that they did not know whether it was a sign of disease. Girls in the intervention group were markedly more likely to believe in the disease-theory of menstruation than their peers in the control group (22% versus 15%). Although, as noted above, few girls missed school due to menstruation, menstrual taboos were extremely common. The majority avoided praying or making offerings while menstruating (84%), about half mentioned limited physical contact with family members, and one-fifth (20%) did not enter the kitchen or participate in food preparation while on their periods. Just over one-quarter of girls (28%) reported having received any menstrual hygiene support, such as access to pads, over the last year.

Bodily integrity and freedom from violence

Girls in both the intervention and control group reported high levels of bullying. Over the last week, about half (52%) had been teased by a peer and half had teased (47%) a peer. In that same time frame, about one-fifth (22%) had been hit or pushed by a classmate and one-eighth (14%) had hit or pushed a classmate. Girls in the intervention group were slightly more likely to have pushed or hit a classmate than their peers in the control group (17% versus 13%).

Girls' risk of child marriage and trafficking was low, which would be expected in a sample comprising mostly school-going girls. Nearly all girls (99%) had never been married and most were able to correctly report the legal age of marriage for girls and boys. The average preferred age for marriage was 22 years for women and 24 years for men—although a very small minority of girls (1%) reported that the ideal age for girls to marry

was under 18. A similarly small minority of girls (2%) had been approached with a good job offer—a potential proxy measure for risk of trafficking. Of these girls, four in five (80%) lived in Tanahun district.

Psychosocial well-being

The survey found that across both groups, girls had extraordinarily high levels of social support and strong 'soft skills'. Nearly all girls reported that their parents, friends, neighbours and teachers helped and encouraged them and that their parents provided them with adequate supervision and structure. For example, girls reported that they were able to relate to others in a friendly way (94%), had good adult role models (95%), and that their families had clear rules (99%). Most girls also reported that they had opportunities for socialisation and recreation. More than half (54%) of girls in the sample participated in a sport and a large majority (82%) talked with their female friends about topics including education.

Girls' non-cognitive skills were similarly strong. Nearly all reported having personal goals (97%), making plans to achieve those goals (96%), and finishing the tasks they start (97%). The survey also found evidence that more mentoring could be beneficial to girls. Almost one-third (32%) of girls, for example, reported that they had a hard time figuring how to operationalise their goals and more than a half (55%) reported that they sometimes gave up when tasks became too hard.

Voice and agency

Girls in both groups reported similar—and moderate—freedom of movement and access to voice and decision-making. Over two-thirds (70%) of girls, for example, reported being able to visit a friend's house alone. Nearly all (88%) were comfortable expressing their opinions to their friends and about a quarter (26%) to coaches and leaders of programmes. Girls reported more input into decisions such who their friends are (3.5/5) and how long they would like to say in school (3.3/5) than time spent on chores (2.9/5). Girls' civic engagement was low—very few reported being members of child clubs, savings groups, or other associations and even fewer reported holding a leadership position.

In terms of role models, girls primarily reported talking to their mothers about their daily lives and their educational goals, their fathers about the type of work they would like to do, and their sisters about puberty.

While most girls (90%) had access to a mobile phone, only 5% of girls had their own phones. Most (57%) used those belonging to their mothers. Girls tended to use phones for communication rather than for access to in the internet (59% versus 21%), in part because less than one-third of phones were internet enabled.

Economic empowerment

Girls' plans for their own eventual economic empowerment were universally high and did not vary between the intervention and control group. Nearly all (99%) reported that they would like to be employed as adults, primarily in government or private office work (67%), and that they were confident that they would be able to achieve their plans (99%). About half the girls (45%) reported having their own savings, mostly informal. Perhaps unsurprisingly, given girls' ages, only a few (19) were involved in any sort of vocational training. Of those that were, all mentioned textiles.

Key implications for policy and practice

Our baseline findings point to a number of policy and practice implications in order to support adolescent girls in the study communities to reach their full capabilities and broader well-being as follows. Our longitudinal study will be able to capture over time the extent to which Room to Read's programme interventions are contributing to this end.

- Although girls' access to quality education is overall good – and their aspirations almost universally high – barriers still exist for a minority of girls in Tanahun and Nuwakot districts of Nepal. Barriers include illness/disability, the need to partake in agricultural work to earn money, social, religious and cultural norms, and a lack of interest in attending school.

- Despite policy and programming, the perception of menstruation as a disease and the prevalence of menstrual taboos are common. Girls would benefit from more practical menstrual hygiene support as well as continued work on the social norms which surround menstruation.
- Research and programming should direct more focus to bullying in school, given this is a common risk facing adolescent girls.
- Although girls' aspirations are almost universally high, they would benefit from mentors and role models who can better support them to operationalise their goals.
- Girls need expanded access to school- and community-based clubs in order to foster their civic engagement.
- Girls need expanded access to formal and informal savings opportunities and, as they grow up, more access to training programmes that are aligned with their own aspirations as well as labour markets.
- Mobile phones may be a key platform to reach adolescent girls, even in geographically remote communities –although given low internet connectivity, texting-based platforms are likely more useful in the short- and medium-term.

Introduction

Adolescence is a time of rapid developmental change, which often presents gender-specific challenges for girls – including with respect to their schooling, broader life skills and other capabilities that enable them to pursue and achieve their own dreams. In contexts of poverty, these challenges may be amplified, as parents may feel forced to choose how best to invest their scarce resources in a context where girls face real or anticipated disadvantages. Moreover, when a girl transitions from childhood to adolescence, she faces the risk of inequitable treatment because of gender norms in the home, school and community that privilege opportunities for boys.

This confluence of disadvantages has potentially important consequences for an adolescent girl's life course trajectory. Such consequences may include the inability to finish secondary school, to obtain safe and well-remunerated work, to maintain the capacity for economic independence and to lead a physically, psychologically and emotionally healthy life. If the value and capabilities of an adolescent girl are diminished, such conditions may contribute to child marriage, an early first birth and undesirable consequences for her health and human rights, all of which are likely to diminish her empowerment through adulthood (Yount et al., 2018).

For all of these reasons, adolescence may be a 'critical period' to transform harmful gender norms and structural constraints in schools, communities and the parental/family home, before they exert an adverse influence. Thus, multifaceted and multi-contextual strategies may be needed to create the spaces to provide girls with the capabilities for personal growth.

Objectives of this report

This report provides initial findings from the baseline survey of the Nepal Room to Read (RtR) Girls' Education Program (GEP) evaluation, undertaken by the **Gender and Adolescence: Global Evidence (GAGE) Consortium**.

The core mission of GAGE is to advance an understanding of best practices to strengthen the capabilities of adolescent girls. The GAGE Conceptual Framework identifies six core capability domains for adolescent girls: education and learning; health and sexual and reproductive health (SRH); bodily integrity and freedom from violence; psychosocial well-being; voice and agency; and economic empowerment.

RtR was founded in 2000 with an initial focus on helping children develop the skills and habit of reading at the primary level (RtR, nd). As the organisation evolved, it developed a strategy and programme with a specific focus on girls—to foster their development of critical life skills, to improve their overall academic performance in school and to support their retention and completion of secondary school (Cunningham and D'Arcy, 2017; UNICEF, 2017). In this way, the RtR GEP is working to ensure gender equality in schooling attainment and to increase the number of educated and empowered adults globally.

By improving educational conditions and capabilities for girls, GAGE and RtR aim synergistically to enhance momentum to expand education and resources for empowerment to a broad population of girls globally. This report presents findings from the baseline survey of the GAGE evaluation of the RtR GEP in Nepal across the six capability domains of the GAGE framework (GAGE Consortium, 2017).

Room to Read Girls' Education Program

The RtR GEP was initiated in Nepal in 2001 and has engaged a total of 4,800 girls since inception (Gupta-Archer and Stavropoulou, 2017). In Nepal and elsewhere, locally trained social mobilisers (SMs) implement the RtR GEP, focusing on the development of girls' life skills; group mentoring and the identification of at-risk girls; parental/family and community engagement; and need-based material support for girls' families to improve girls' secondary educational attainment (Cadena et al., 2015). RtR engages all girls in targeted schools and

follows each cohort through lower and upper secondary, typically seven years in countries where RtR works. This evaluation focuses on the GEP being implemented for girls in Grades 6–8, as summarised in Table 1.

Table 1. Room to Read Girls' Education Program for Grades 6–8

GEP input	Grades 6–8
Life skills education	15–16 1-hour life skills classes/year Optional life skills clubs
Mentoring	6–9 group mentoring sessions/year Individual mentoring as needed (Risk and Response System)
Family, school, community engagement	2 parent workshops/year 1 'welcome' home visit for each new girl 1 community awareness event 1 focal teacher identified at each school
Material support	Need-based

Life skills

Based on research by the World Health Organization (WHO) (1999, 2003), RtR has identified 10 foundational learning skills that children need to succeed in school and beyond. These skills include communication, empathy, critical thinking, self-confidence, perseverance and relationship-building, among others. To cultivate these skills, RtR developed global learning modules based on its 16 years of experience in 9 countries. Facilitated by local RtR SMs, the curriculum is contextualised and age-appropriate, such that the modules change in frequency and content from lower to upper secondary school, to respond to girls' changing needs.

In lower secondary, RtR is laying the foundations for girls' emotional and social growth. As such, girls participate in two sessions per month, or fifteen to sixteen sessions per school year. Girls explore topics ranging from decision-making to career-planning and financial literacy. In upper secondary, girls need more time for studies to meet academic standards and to pass important exams. At this age, the life skills sessions are less frequent – five per year – and more nuanced to reflect girls' own development and the complexity of the life challenges and decisions they face. Building on the knowledge and skills developed in lower secondary, RtR supports them to enhance their understanding of SRH, nutrition, safety, financial literacy and career preparation, and to think strategically about their life options.

In addition to the life skills lessons, girls engage in service-learning activities and may form life skills clubs under the guidance of the SM. Associated activities have included giving speeches on girls' rights for International Day of the Girl Child; organising exam study groups; and holding demonstrations against child marriage. These activities are girl-led and enable them to put their skills into practice, so they develop the self-confidence, problem-solving, critical thinking and other skills that build self-awareness, self-efficacy and social awareness. In this way, the life skills sessions and experiential activities help girls succeed in school and equip them to become agents of change in their own lives and communities.

Mentoring

Once per month, girls engage in small group mentoring meetings with the SM. These meetings provide opportunities for the girls to explore a life skills session further or to address a challenge they may be facing, such as an upcoming exam or an impending wedding season where girls may be expected to marry. Girls also receive individual mentoring, as needed. Based on RtR's Risk and Response System, a girl is 'at risk' when she misses three or more days of school in a row, misses a life skills session or fails an exam. The SM will meet 'at-risk' girls individually to provide support. A girl also is 'at risk' when her parent or guardian misses a parent workshop, in which case the SM will visit her home to ensure parents reinforce their commitment to their

daughter's education. A girl or SM also can seek each other out at any time for an individual conversation. In 2014, about 23% of the girls received individual mentoring (RtR, 2014).

Family and community engagement

Two times per year, SMs hold workshops for parents of girls enrolled in GEP. These parent workshops continue for the entire time that the girls are in GEP (Grades 6–12). Workshops cover topics such as the value of girls' education, the importance of life skills and how to support daughters in their studies. In 2015, 82% of GEP participants had parents or guardians who attended workshops. Based on need, additional parent meetings are held to provide updates on activities, such as building excitement around International Day of the Girl Child events or informing parents about activities planned for the year. SMs also visit girls' homes at the start of GEP to get to know the family and home environment and follow up if a parent or guardian misses a parent workshop.

Material support

A growing body of evidence points to high costs as an obstacle to education in lower-income countries, especially for the poor, girls and orphans and other disadvantaged children. Reducing the direct and indirect costs to parents of educating their daughters can be effective to increase girls' school participation and completion rates. RtR provides material support as needed to alleviate the financial barriers that may prevent girls from entering and completing secondary school. Material support is targeted to families that cannot afford their daughters' educational expenses and lack alternatives to meet these costs. In these cases, RtR may provide tuition and exam fees, transportation fees, uniforms, school supplies and targeted exam preparation support. RtR country offices conduct assessments of the families and then assign material support, as needed.

Pilot evidence of GEP results in Nepal

A mixed-methods evaluation in Bardiya district reported that participants in the programme found it to be effective at improving school retention; facilitating communication with girls, their families and the community; providing academic support and mentorship to girls; and providing material support to girls' living below the poverty line (Cadena et al., 2015). This small-scale pilot evaluation provided the primary evidence that motivated the present quasi-experimental evaluation.

Design of the GAGE RtR Nepal study

Sample design and achieved sample

The GAGE evaluation of the RtR GEP is being undertaken in Nuwakot and Tanahun districts of Nepal. In the sample design the aim was to enrol approximately 580 girls attending the 24 schools (12 in each district) where RtR was scheduled to roll out its GEP in 2018, hereafter termed 'the intervention group'. The sample design also aimed to establish a comparison cohort of approximately 1,276 girls aged 12–14 years or in Grade 6 in 40 randomly selected wards (or clusters within larger wards) adjacent to the wards in which RtR GEP was being implemented. Households in both study groups received a short screening form to identify eligible adolescent girls and to collect data on household poverty using questions from the Nepal Poverty Probability Index (PPI). The achieved sample at baseline included an intervention group of 571 girls and a comparison group of 1,127 girls. Baseline response rates were 99.8% of 571 eligible girls and 99.9% of 1,127 eligible girls, respectively.

Questionnaire

This report focuses on baseline data collected from the sample of adolescent girls. The adolescent girls' questionnaire included 18 modules that aligned with the GAGE adolescent capability domains and with the core RtR learning outcomes for GEP, but also introduced several important innovations with respect to social networks and context, gender norms and adolescent youth development (Table 2). GAGE Consortium partners at Emory University and the Center for Research on Health and Population Activities (CREHPA) jointly developed the study forms, with input from RtR and the Overseas Development Institute (ODI).

Table 2. Adolescent girl questionnaire modules and sources for questions and scales

Questionnaire modules	Sources for questions in each module
Educational Experiences (two modules)	GAGE questionnaire Population Council/CREHPA United Nations Children's Fund (UNICEF) Adolescent Development and Participation (ADAP) questionnaire (Amin et al., 2014) Annual Status of Education Report (ASER) Nepal scale (ASER Nepal, nd) Collective Efficacy Scale among Japanese Adolescents (Takakura et al., 2017)
Positive Youth Development and RtR Life Skills Education Learning Outcomes (two modules)	Chinese Positive Youth Development Scale (Shek et al., 2007) International Youth Development Scale (Bond et al., 2000; Arthur et al., 2002; McMorris et al., 2007; Hinson et al., 2016) Family Centered Practice rating scale (Murphy et al., 1995)
Maths and Reading Learning Outcomes	ASER Nepal scale, maths and reading (www.asercentre.org/p/141.html)
Marriage	GAGE questionnaire Questions tailored for this study
Aspirations	GAGE questionnaire Questions tailored for this study
Voice, Agency, Mobility (or freedom of movement)	GAGE questionnaire Socio-political Control Scale for Youth (Peterson et al., 2011)
Livelihoods, Financial Literacy and Economic Empowerment	GAGE questionnaire Population Council/CREHPA UNICEF ADAP questionnaire (Amin et al., 2014)
Safe and Enabling Environment	Development Assets Profile (Scales et al., 2017)
Information, Communication, and Technology	GAGE questionnaire (modified and condensed)
Participation and Civic Engagement	Population Council/CREHPA UNICEF ADAP questionnaire (Amin et al., 2014)
Peer Networks	Egocentric social network questions designed for this study
Reference Groups and Role Models	GAGE questionnaire
Gender Attitudes and Norms	Gender-Equitable Men scale (Vu et al., 2017) Male Role Norms Inventory-Adolescent-revised scale (Levant et al., 2012) Gender Attitudes Scales (Lundgren et al., 2017) International Men and Gender Equality Survey (Levtov et al., 2014)
Aggression/Victimisation	Aggression/victimisation (Orpinas and Horne, 2006) [1] GAGE questionnaire – Trafficking Module Population Council/CREHPA UNICEF ADAP questionnaire (Amin et al., 2014) [2]
Health and Risky Behaviour	Population Council/CREHPA UNICEF ADAP questionnaire (Amin et al., 2014) Washington Group on Disability Statistics/UNICEF Module on Child Functioning and Disability (Loeb et al., 2017)
Programme Benefits	GAGE questionnaire – Social Inclusion Module

The questionnaire modules focused on educational experiences in pre-kindergarten and primary school; positive youth development using validated scales that the research team mapped onto the 10 RtR life skills education learning outcomes; maths skills and reading comprehension learning outcomes; marriage; voice, agency and mobility (or freedom of movement); livelihoods, financial literacy and economic empowerment; a safe and enabling environment; participation and civic engagement; adolescents' social networks, reference groups and role models; gender attitudes and norms; school-based aggression and victimisation; health and risky behaviour; and programme benefits.

New questions on adolescent youth development, for example, were introduced from a range of existing, validated scales measuring self-confidence, self-efficacy and positive self-identity; social competence; emotional competence and emotion regulation; critical thinking; and leadership competence, among others (Murphy et al., 1995; Shek et al., 2007; Peterson et al., 2011; Takakura et al., 2017). Emory research partners also compiled new scales to capture norms of masculinity, norms of femininity and norms on gender relations, using a range of existing, validated, scales (Vu et al., 2006; Levant et al., 2012; Lundgren et al., 2013; Levtov et al., 2014). New tests of academic performance – specifically reading comprehension and maths skills – were introduced from the Nepal version of the Annual Status of Education Report test.[1] The newly introduced reduced aggression/victimisation scale captured experiences and perpetration of bullying in school (Orpinas and Holme, 2006). The questionnaire was developed in English, reviewed by RtR and GAGE/ODI, translated into Nepali and back-translated into English to identify and resolve gross differences in the meaning and interpretation of survey questions before piloting.

Training and fieldwork

The field team consisted of 30 university-graduate Nepali female researchers who received a 13-day training undertaken jointly by GAGE team members at Emory University and CREHPA. The training included didactic sessions on the study protocol, survey questionnaires, GAGE policies and ethics in human subjects research. The training also included experiential role-plays, a pre-test, and a full pilot. Finally, the field team received training in the conduct of face-to-face computer-assisted personal interviews (CAPIs) using tablets and REDCap version 8.3.2. REDCap is a web-based data systems application developed by Vanderbilt University with funding from the National Institutes of Health that allows for the secure collection, storage and transfer of multi-relational data and user-defined access by multi-institutional partners at any location in the world (Harris et al., 2009). The pre-test and pilot informed final revisions to the questionnaires and application. Six interview teams, each with one supervisor and four enumerators, conducted the fieldwork from 4 July to 2 September 2018. In sites with internet connectivity issues, field teams used paper-based forms for the core respondent and parent interviews from 13 August 2018 until the completion of data collection. Since all interviews were held face-to-face, the basic mode of administration did not differ when there were internet connectivity issues. After data collection, one debriefing session was held to give interviewers a platform to provide feedback.

Limitations

This report outlines initial findings of the adolescent girls' baseline survey in Nepal. The results from the baseline adult primary caretaker and school surveys are not included.

1 www.asercentre.org/p/141.html

Nepal context

Nepal, a small country located in a mountainous region of South Asia between China and India, consists of 77 districts, 263 urban municipalities and 460 rural municipalities, all within 7 provinces (Ministry of Federal Affairs and General Administration, 2017). The districts are divided into urban and rural municipalities, which are further divided into wards. Over the past 30 years, Nepal has seen significant political change, moving from a monarchy under control of a king to a federal parliamentary republic with a decentralised government and a prime minister. This change occurred following a civil war that lasted from 1996 to 2006.

As of 2015, the total population size of Nepal was 28.7 million (UNDESA, 2017), and, according to the 2016 Demographic and Health Survey, 59% of the total population lives in urban areas (MOHP, 2017). From the same source, adolescents aged 10–19 years comprise 23% of the population. The median age at first marriage for women 25–49 years is 17.9 years, compared with 21.7 for same-aged men. Among women 25–49 years in 2016, 52% were married by age 18, compared with only 19% of men of the same age. Wealth is unequally distributed between urban and rural areas; specifically, more than half of the population living in urban areas belongs to the two highest wealth quintiles, whereas more than half of the population living in rural areas belongs to the two lowest wealth quintiles.

In Nepal, barriers to girls' adolescent capability development and associated social- and health-related challenges arise in part as a result of inequitable gender norms and entrenched social hierarchies that privilege men (Cunningham and D'Arcy, 2017; Clark et al., 2018). Nepali girls and women still often are expected to be caretakers of the family and remain undervalued in society (Lundgren et al., 2013). Practices like menstrual restrictions, dowry, child marriage, son preference and polygamy still occur and represent manifestations of underlying inequitable gender norms (Cunningham and D'Arcy, 2017). Girls and women may experience unequal gender power relations, compromised voice and agency within their household and community, restricted mobility and less access to education. Intimate partner violence (IPV) is an accepted norm among many men and women, and women's exposure remains high (Clark et al., 2018).

While these gender-unequal social structures, norms and behaviours still exist in Nepal, important changes also are occurring, and opportunities may exist to accelerate progress with respect to the health and well-being of adolescent girls. Initial findings from the RtR GEP evaluation will help further the understanding of the lives of early adolescent girls in two districts in Nepal and contribute evidence for creating targeted and effective interventions to support girls' capability development.

The present study was conducted in Tanahun and Nuwakot districts of Nepal. Although life expectancies at birth in both districts, at 70–71 years, are slightly above the national average for Nepal of 69 years, Nuwakot falls below the national average for levels of adult literacy (60% versus 66%; CBS, 2014), average schooling attainment (3.3 versus 3.9 years of schooling) and per capita income ($1,086 versus $1,160 PPP). Tanahun per capita income also is lower than the national average ($1,072 PPP) but levels of schooling, at 4.2 years, are slightly higher (NPC and UNDP, 2014).

Tanahun district, in Province 4, covers an area of 1,546 km^2, and in 2011 had a population of 323,288 (44% male, 56% female) (CBS, 2014). Damauli serves as the district's headquarters. In 2016–2017, the median age at first marriage across Province 4 was 18.6 among women 20–49 years (MOHP, 2017). Of the 12-year-old girls in Tanahun district in 2011, an estimated 63% had finished primary school (Grades 1–5), 36% had finished lower secondary (Grades 6–8) and only 0.3% had completed secondary (Grades 9–10) (CBS, 2014).

Nuwakot district, in Province 3, covers an area of 1,121 km^2, and in 2011 had a population of 277,471 (48% male, 52% female) as of 2011 (CBS, 2014). The district's headquarters are in Bidur, and dramatic structural changes have occurred in recent years, with an influx of new schools, hospitals and improved roads (Cunningham and D'Arcy, 2017). The median age at first marriage in Province 3 is 19.7 among women 20–49 years (MOHP, 2017). Of the 12-year-old girls in Nuwakot district in 2011, about 65% had finished primary school, 33% had finished lower secondary school and 0.5% had completed secondary school (CBS, 2014).

While both districts face some socioeconomic disadvantage, there is evidence of structural change, especially in Nuwakot. In the sections that follow, we provide an introduction to each of the GAGE capability domains, and present findings from the Nepal RtR GEP evaluation baseline survey across intervention and comparison groups.

1. Education and learning

Since the 2000 Millennium Development Goals included the achievement of universal primary education in their mandate, the completion of primary school among girls has increased globally (UNICEF, 2017). In Nepal also, girls' primary school completion rate has increased, but rates of secondary school completion have not seen parallel progress (MOHP, 2017). Girls' schooling, and education more broadly, is a focal point of the GAGE capabilities framework, as it serves to empower adolescent girls through the provision of knowledge, life skills, extra-familial peer networks and adult advocates, such as teachers and school administrators, outside of the family.

In Nepal, the government supports schooling attainment for girls through several initiatives, including the provision of free primary education and the right to education in a child's first language (Cunningham and D'Arcy, 2017). Post-civil war, there have been substantial improvements in gender parity in schooling attainment and in net school enrolment ratios (currently 97% for boys and girls), and girls' literacy (80% of 15–24-year-old girls are literate) in Nepal as a result of these initiatives (Korzenevica, 2016; Cunningham and D'Arcy, 2017; MOHP, 2017; UNICEF, 2017; World Bank, 2017).

The school system in Nepal comprises four categories: government-funded community schools, government-funded but community-managed schools, independent community schools and privately funded schools (Cunningham and D'Arcy, 2017). Government-funded schools tend to be regarded as low in quality, which may drive those who can afford it to send their children to higher-quality private schools, which may provide better employment opportunities for graduating students (ibid.). Several initiatives have been undertaken in Nepal to improve adolescent girls' school attendance, including scholarships and financial incentives, clubs and life skills trainings, programmes focused on out-of-school girls and those focused on child labourers (Gupta-Archer and Stavropoulou, 2017). Women's secondary schooling attainment has seen an increase in recent years, from 29% to 35% (MOHP, 2017).

Despite the progress that has been made, adolescent girls in Nepal continue to have diminished ability to attend and finish school, especially adolescent girls who live in rural areas, live in poor households, are differently abled, belong to so-called lower castes or are members of ethnic groups that may experience various forms of marginalisation (Cunningham and D'Arcy, 2017). Gender disparities persist in secondary schooling attainment, with just over a third (35%) of women and almost half (47%) of men attaining secondary school or higher education (MOHP, 2017). In the lowest household wealth quintile, only 2% of women have attained more than a secondary education, compared with 25% of women from the highest household wealth quintile (ibid.). Barriers to girls' education include persistently high levels of child marriage, menstruation rituals and son preference (Ghimire and Samuels, 2014).

In Nepal, inequitable gender norms may create barriers for girls' school attendance (Cunningham and D'Arcy, 2017). Girls are often expected to contribute heavily to household chores in preparation for marriage, leaving them with little time for learning (Lundgren et al., 2013). Education may not be viewed as something that will make a 'good' wife, and girls may be sent to lower-quality, inexpensive schools when boys are sent to private schools (Frost et al., 2013). Within schools and among adolescents, gender-inequitable attitudes already are engrained and create a sub-optimal learning environment for girls (Cunningham and D'Arcy, 2017).

1.1 Introduction to data

This section presents baseline data related to the education and learning capability domain. The sections that follow are separated into the sub-domains of learning outcomes, educational aspirations and access to appropriate and quality education. The well-known Nepal version of the Annual Status of Education Report (ASER) scales was used to assess maths abilities and reading comprehension levels.

1.2 Learning outcomes

The percentage of adolescent girls (aged 10–16 years) in Nepal enrolled in secondary school has risen steadily in recent years, from 49% in 2008 to 75% in 2017 (UNESCO, 2017). These gains should be lauded as a major success for Nepal and its development partners. In addition to increasing enrolment, ensuring that students are learning the necessary skills, appropriate to their grade level, is crucial to further improve educational quality.

ASER is an annual citizen-led household survey developed in India and adapted to Nepal and 13 other countries across Asia and Africa to assess students' learning outcomes. We used ASER testing tools to assess reading comprehension and basic maths skills in the girls who make up our study sample. The Nepal ASER reading assessment tool measures reading ability in English and Nepali. Our study focused only on reading comprehension in Nepali. The ASER tool is validated and has been evaluated for precision of measurement (Ramaswami and Wadhwa, 2010; Vagh, 2010). The ASER test administered as part of this survey was valid for Grades 4–8 in the Nepali context.

ASER reading ability is assessed at one of five possible levels:

1. beginner
2. letters
3. words
4. a short paragraph
5. a longer story.

The five levels of reading ability differ in their competency requirements, and students are marked at the highest level that can be performed with ease. At the letters level, the student can correctly recognise four out of five letters. At the words level, she can read at least four out of five words correctly. At the short paragraph level, she can read a paragraph fluently and with ease, making no more than three errors. At the story level, she can read a story fluently and with ease, making no more than three errors. If none of these levels is achieved, she is marked as a beginner.

Of the 1,697 girls who responded to the ASER reading test, the mean score was 4.5, suggesting that most girls were able to read at either the paragraph or the story level. For intervention and comparison group Grade 6ers, the 25th percentile score was 4 and the 50th percentile score was 5 (the highest possible score). For comparison group Grade 7–12ers, the 10th percentile score was 4 and the 25th percentile score was 5.

Among the 570 girls in the intervention group who responded to ASER (Grade 6), the average reading score was 4.4. Most girls in the intervention group were able to read paragraphs fluently and with ease, making no more than three errors.

Reading ability in the comparison group (Grade 6) was similar: among the 326 girls in this group, the mean ASER reading score was 4.3.

Among the 761 girls in the comparison group in Grades 7–12, the average ASER reading score was 4.7. On average, girls in this comparison group were able to read paragraphs and stories fluently and with ease, making no more than three errors.

The ASER maths tool measures basic math skills and consists of five possible levels:

1. Beginner
2. recognition of numbers 1–9
3. recognition of numbers 10–99
4. two-digit subtraction with borrowing
5. three-digit by one-digit division

At the first recognition level, the student can recognise at least four out of five numbers between one and nine. At the next recognition level, she is able to identify at least four out of five numbers between ten and ninety-nine. At the subtraction level, she is able to solve correctly two subtraction problems. At the division level, she can solve correctly one division problem. The student is marked at the highest level that she can do comfortably. If none of these levels is achieved, she is marked as a beginner.

Of the 1,697 girls who responded to the ASER math test, the mean score was 4.4, suggesting that girls in our sample were between the subtraction and division levels, on average. Across all study groups, the 10th percentile score was 3, the 25th percentile score was 4 and the 50th percentile score was 5 (the highest possible score).

Among the 570 girls in the intervention group (Grade 6), the mean ASER maths score was 4.2. Most girls in the intervention group were able to solve two subtraction problems correctly but not many were able to solve correctly a division problem.

The 326 girls in the comparison group (Grade 6) had a mean ASER maths score of 4.3, which indicates similar maths ability to the intervention group: most girls in these groups were performing comfortably at the subtraction level.

Among the 761 girls in the comparison group in Grades 7–12, the mean ASER maths score was 4.60. Most girls in this comparison group were able to complete two subtraction problems correctly, and some were able to complete one division problem correctly.

Overall, across the sample, girls were able to read paragraphs fluently and solve subtraction problems correctly. As they enter higher grades, they were more able to read stories fluently and solve division problems correctly.

Table 3. ASER scores for Nepali reading comprehension and maths skills, sample girls in Nuwakot and Tanahun districts

Outcome	Intervention group				Comparison (Grade 6)				Comparison (Grades 7–12)			
	N	Mean	Min	Max	N	Mean	Min	Max	N	Mean	Min	Max
ASER reading score (1–5)	570	4.37	1	5	326	4.30	1	5	761	4.74	1	5
ASER maths score (1–5)	570	4.23	1	5	326	4.33	1	5	761	4.60	1	5

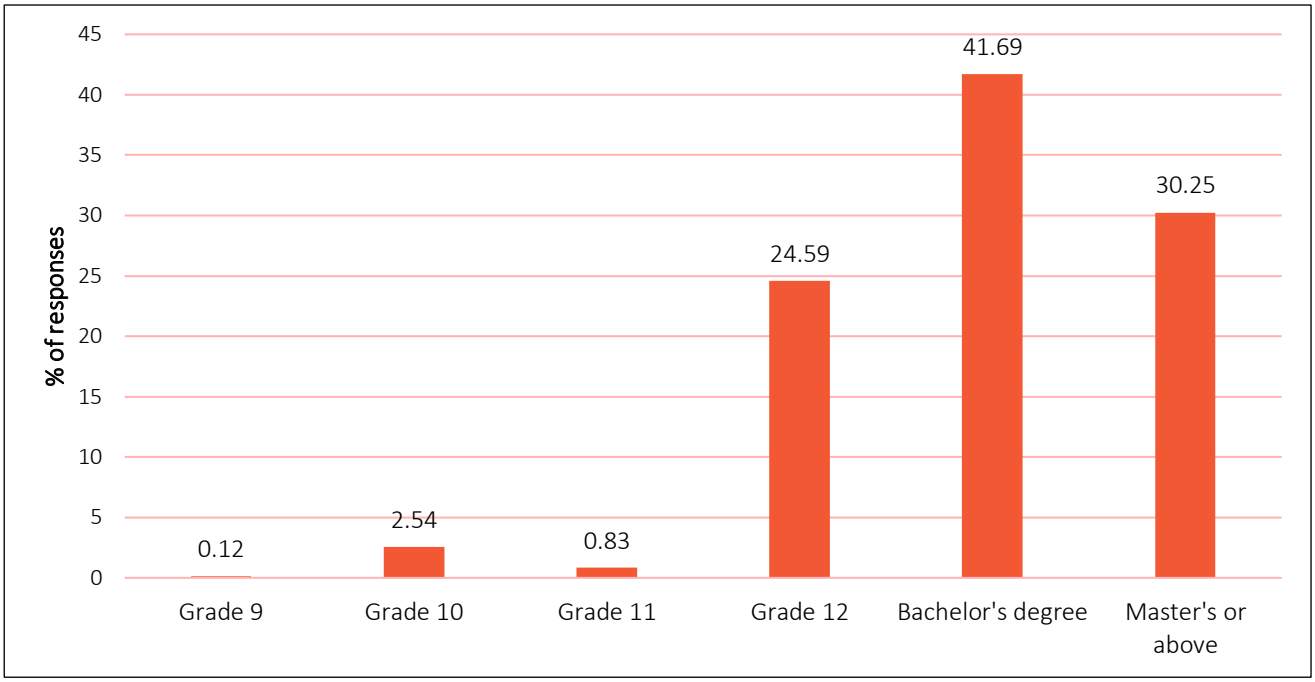
Note: Higher scores indicate higher performance on ASER assessment

1.3 Educational aspirations

We also asked girls about the highest level of education they aspired to attain, as well as the confidence they had in their ability to attain their aspiration. Of the 1,697 girls who responded, very few aspired to complete only some high school (Grades 9, 10 or 11). About a quarter of girls aspired to complete a high school diploma (Grade 12).

Over 70% of the sample aspired to post-secondary education. Almost 42% of girls aspired to complete a bachelor's degree, and about 30% of girls aspired to complete a master's degree or beyond (Figure 1).

Figure 1. Highest level of education aspired to, among all respondents, sample of girls in Nuwakot and Tanahun (N=1,696)



Virtually all girls in our sample (99%) were somewhat or very confident in their ability to attain their educational goals. Confidence in ability to attain their desired educational level did not vary between intervention or comparison groups, or by desired educational level: girls were as confident in their ability to attain a master's degree as they were in their ability to complete high school.

1.4 Access to appropriate and quality schooling

Beyond enrolment rates, a complete assessment of education for adolescent girls must consider educational quality, which encompasses factors related to school environment (such as feeling safe and included), as well as attendance/dropout rates and access to academic support and enrichment activities (Parker et al., 2014; Cunningham and D'Arcy, 2017).

We asked girls about their school environment, including about how students interacted with other students; how students responded to issues such as bullying, drug or alcohol use, and absences; how safe they felt travelling to and from school; and how safe they felt when at school. Students' responses to these questions were summed on a scale from 1 to 54, with lower scores denoting higher-quality educational environments. The mean score on this school environment scale was similar among the intervention and comparison groups. Table 4 presents the results.

Table 4. Education and learning scales, sample girls in Nuwakot and Tanahun

Outcome	Intervention group				Comparison			
	N	Mean	Min	Max	N	Mean	Min	Max
Access to appropriate and quality schooling								
School environment scale (1–54)	557	23.80	15	50	1,086	23.52	15	54

Note: Lower scores indicate better educational environment

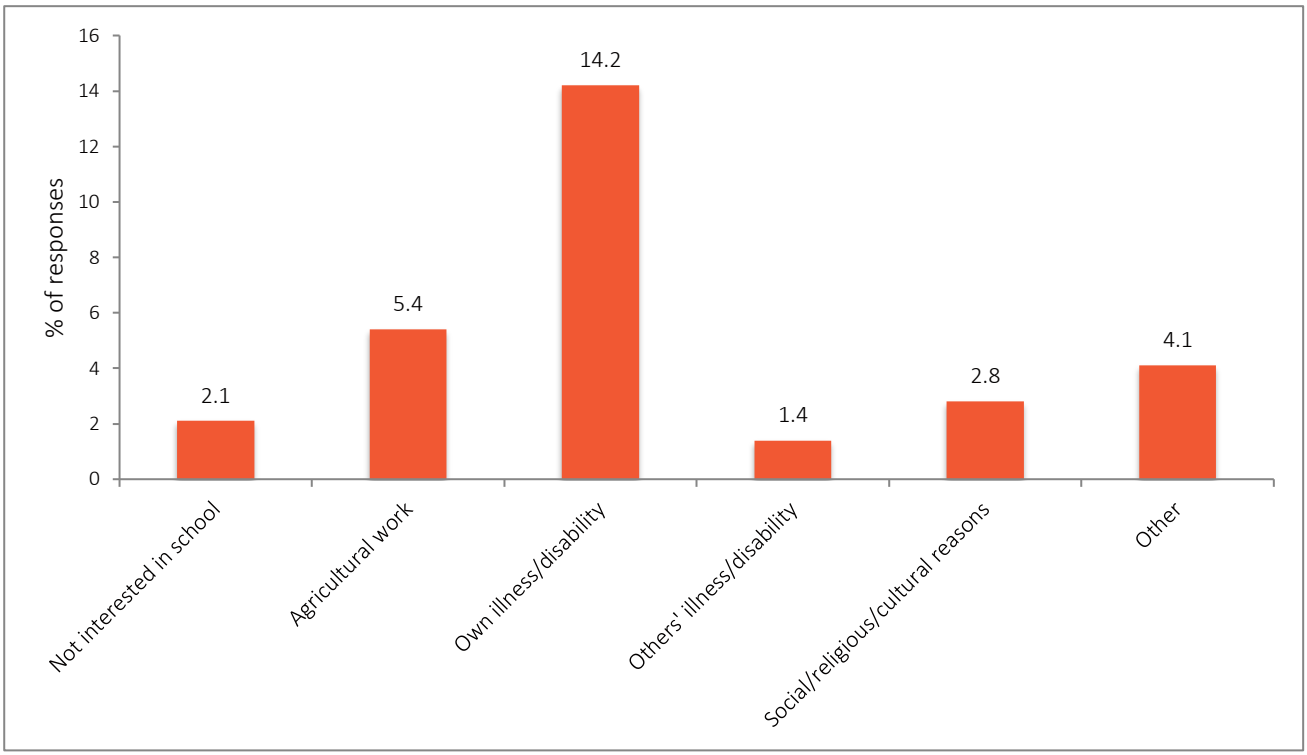
In both groups, almost all girls (99%) felt somewhat or very safe in their schools. Similarly, almost all girls (96% in the intervention group and 99% in the comparison group) felt somewhat or very safe travelling to and from school.

We asked girls how often they had missed school in the previous two weeks, as well as their reasons for missing school. For the intervention and comparison groups, the number of missed school days ranged from 0 to 10+. For both groups, the median number of missed school days was 0. The mean number of missed school days was 0.79 (0.95 for the intervention group and 0.71 for the comparison group).

A wide variety of reasons were given for missing school in the prior two weeks, including reasons related to finances, transportation, health and hygiene, and conflicting work schedules. The five most commonly reported reasons, reported by 28% of all respondents, were illness or disability (most frequently their own, but also of others in the household), agricultural work interfering with school, social/religious/cultural reasons and lack of interest in school.

About 4.1% of girls also reported other reasons for missing school beyond the options in the questionnaire, including poor weather, visiting relatives and having incomplete homework. Figure 2 presents these results.

Figure 2. Most frequently reported reasons for missing school in previous two weeks, sample of girls in Nuwakot and Tanahun (N=1,697)



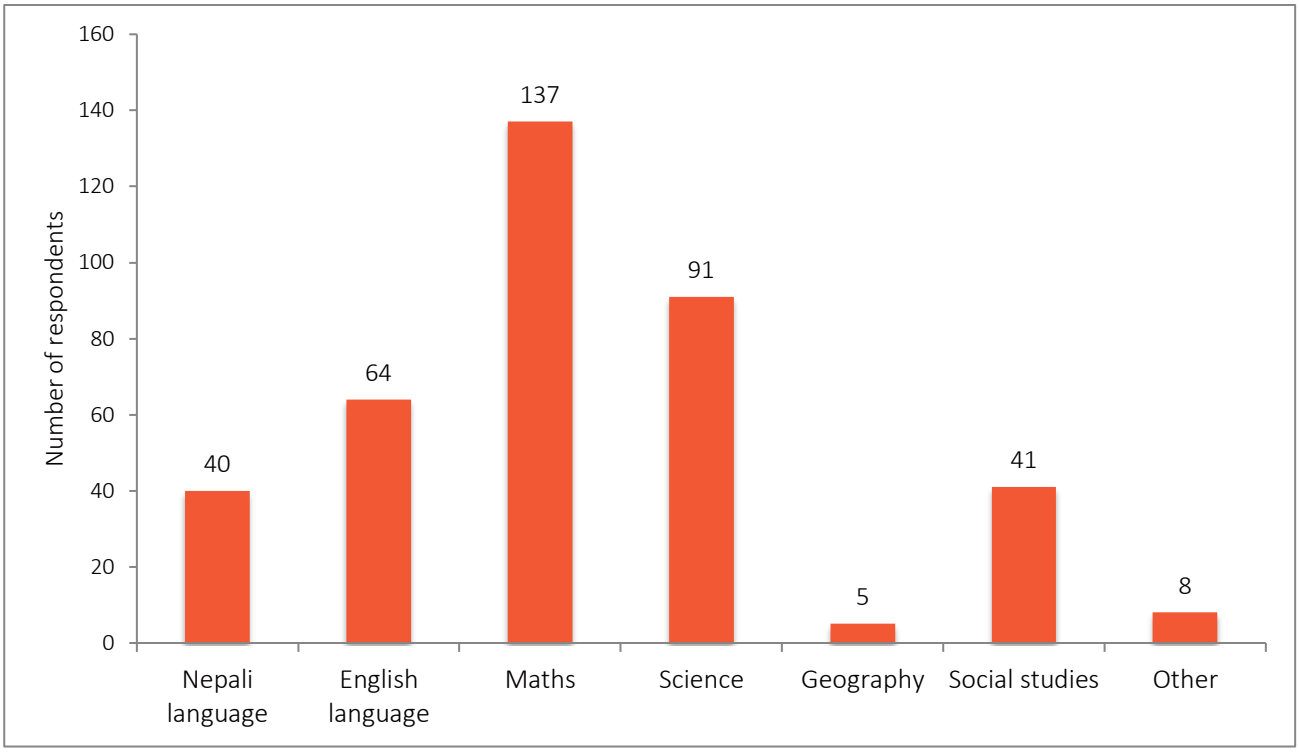
There are substantive concerns that menstruation and lack of access to sanitary products result in absences from school in Nepal (Oster and Thornton, 2011). In our sample, less than 1% of girls reported missing school in the previous two weeks because of menstruation.

We also asked girls about whether they received private tutoring and, if so, for which subjects. Of 1,240 girls who responded, 443 (36%) received private tutoring. Eighteen (4%) of these girls were in the intervention group and 96% were in the comparison group. Of the girls who received private tutoring, 55.5% also were recipients of financial aid through their school and/or another source.

Mean ASER reading and maths assessment scores were 4.7 and 4.7 for girls who received private tutoring, compared with 4.5 and 4.3 for the girls who did not.

Among the girls who received private tutoring, about 30% were tutored in maths and 20% in science. Approximately 14% and 9% received private tutoring for English and Nepali language, respectively. Computer class was the most frequently reported of the 'other' subjects for which girls received private tutoring. Figure 3 presents these results.

Figure 3. Subjects for which respondents received private tutoring, sample of girls in Nuwakot and Tanahun (N=443)



Access to sports and physical activities allows adolescent girls to access public spaces and gather together, develop social networks, meet with peers, discuss problems and enjoy regular freedom of movement (Meier, 2005). We asked girls in our sample about their participation in sports. Of our sample of 1,697 girls, 911 girls (53.6%) participated in sports, with many participating in multiple sports.

About 15% played football, and another 15% played volleyball. About 2% played cricket. Ninety percent reported playing other popular sports, including kabaddi, running and activities related to running (such as spoon and relay races), badminton and chungi. Musical chairs was also reported frequently as a physical activity.

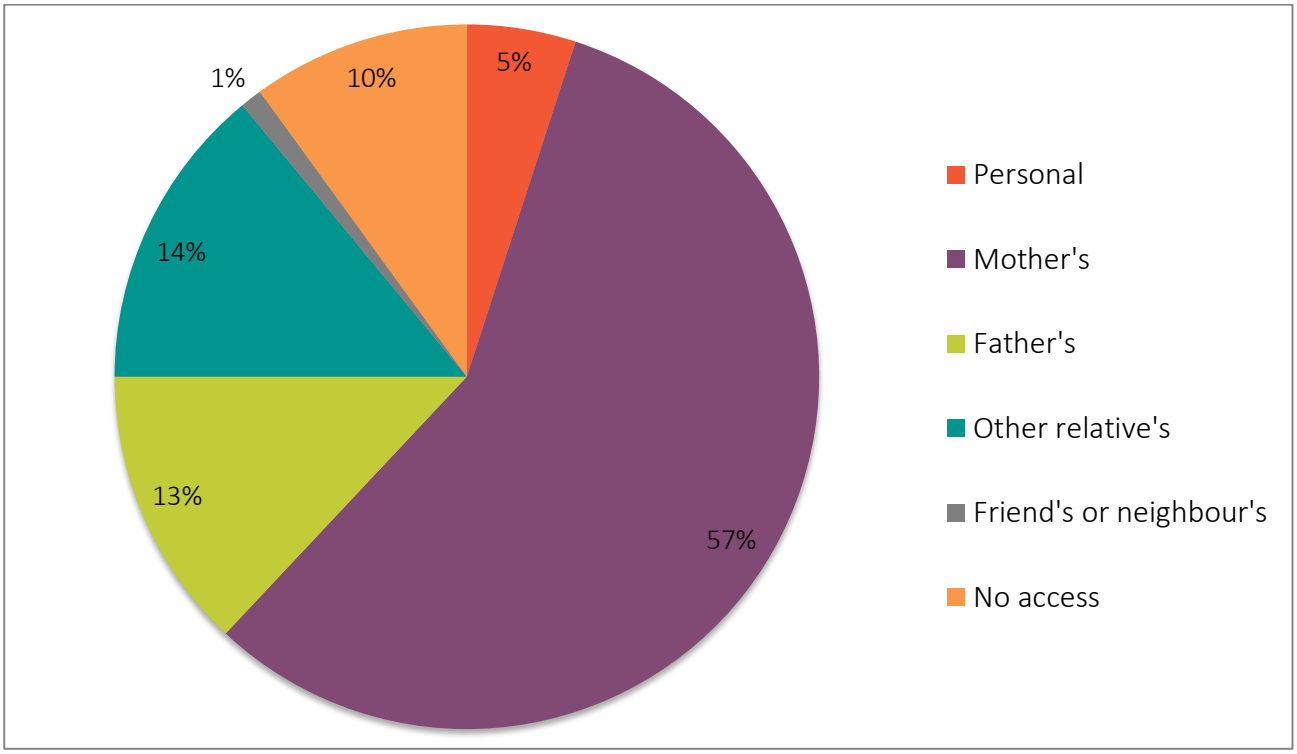
1.5 Access to age-appropriate information and digital technology

Article 17 of the United Nations Convention on the Rights of the Child (UNCRC) states that 'Every child has the right to reliable information from a variety of sources.' Young people aged 15–24 represent the most internet-connected demographic, with children under 15 set to outpace young adults in many countries (Amin et al., 2014). Although digital technologies present new opportunities for learning and education, especially among rural populations, the benefits of such technologies are not equally distributed. According to the UNICEF 2017 State of the World's Children report, there is a 12% gender gap in internet usage worldwide, with growth in usage among men and boys outpacing that among women and girls. Addressing this gender gap will have important implications for the future of girls' education in low- and middle-income countries.

We asked adolescent girls in Nepal about their access to digital technologies as well as their actual use on a weekly or monthly basis.

Although approximately 90% of Nepali girls in our sample reported having access to a mobile phone for personal use when needed, only 36.5% of these phones could access the internet and slightly less than half currently had airtime. Most girls use their mother's mobile phone, with only 5% having a personal device (Figure 4).

Figure 4. Mobile phone use among intervention and comparison groups, sample of girls in Nuwakot and Tanahun (N=1,697)



A total of 59% of girls reported using a mobile phone for talking in the previous week and 21% reported accessing the internet on their phone, with 23% of girls reporting accessing the internet through any source in the previous month.

2. Health and sexual and reproductive health

Good physical and sexual and reproductive health during adolescence, a time of substantial physical change, is challenged for girls in Nepal by a variety of social factors. The norm-driven practices of early marriage and subsequent early first childbirth lead to increased risk of contracting sexually transmitted infections, and increased health risks related to early child-bearing for the mother and child (Yadav et al., 2008). Outside of SRH, food insecurity and anaemia are the most pressing health issues for adolescent girls in Nepal (Cunningham and D'Arcy, 2017).

Customarily, sex outside of marriage has been deemed inappropriate, and sexual initiation for most girls has occurred around the same time of marriage (Cunningham and D'Arcy, 2017). Increasingly, dating and pre-marital sex are normalised, and low use of condoms paired with sexual experimentation may be contributing to increased rates of HIV infection (Regmi et al., 2010a; Tamang et al., 2017). The Nepal Adolescents and Youth Survey found that 13% of young people aged 15–24 years had engaged in pre-marital sex, and only 46% had used contraception at the time of first intercourse (MOHP, 2012).

Of married adolescent girls aged 15–19 years, the 2016 Nepal Demographic and Health Survey reports that only 23% use any kind of contraceptive method, and only 15% use a modern contraceptive method (MOHP, 2017). Early marriage often leaves girls with little-to-no reproductive decision-making power (McLendon et al., 2018). Early childbearing, subsequently, is common in Nepal. The 2016 Nepal Demographic and Health Survey reported that 22% of girls had given birth by age 18 (MOHP, 2017). Abortion is legal in Nepal, but there is a lack of knowledge on its legality and how to access safe services (Yogi et al., 2018). Abortion is the third leading cause of maternal death, and sex-selective abortion occurs as a result of a preference for male children (ibid.).

Nepali adolescents obtain SRH information primarily through media and health-education programmes delivered through public and private health centres that are not tailored to fit the specific needs of young people (Regmi et al., 2010a). Rural areas have a dearth of services, whereas urban areas have a wider variety of services that are easily accessible for adolescents (ibid.). Non-governmental organisations (NGOs) and private organisations play an important role in delivering services to rural areas. Stigma against menstruation (outlined in the Voice, Agency and Mobility section) means that education on menstrual hygiene practices is lacking, and girls are thus not given the information needed to cope with menstruation once a month (Adhikari et al., 2007).

Overall, adolescent girls struggle to access health care services, and, in response, the government has identified them as an underserved population (Cunningham and D'Arcy, 2017). The National Adolescent Health and Development Strategy and the Young People Development Programme are policies that identify adolescents as a key target group for improving SRH service access, and include interventions to improve SRH knowledge (Regmi et al., 2010a).

2.1 Introduction to data

Good health is an essential component of bolstering adolescent girls' capabilities. This section outlines the findings from the health and SRH sections of the baseline survey for the GAGE RtR GEP evaluation. The section focuses on girls' health status, access to information and access to primary health care/health services, and their access to SRH information, supplies and services.

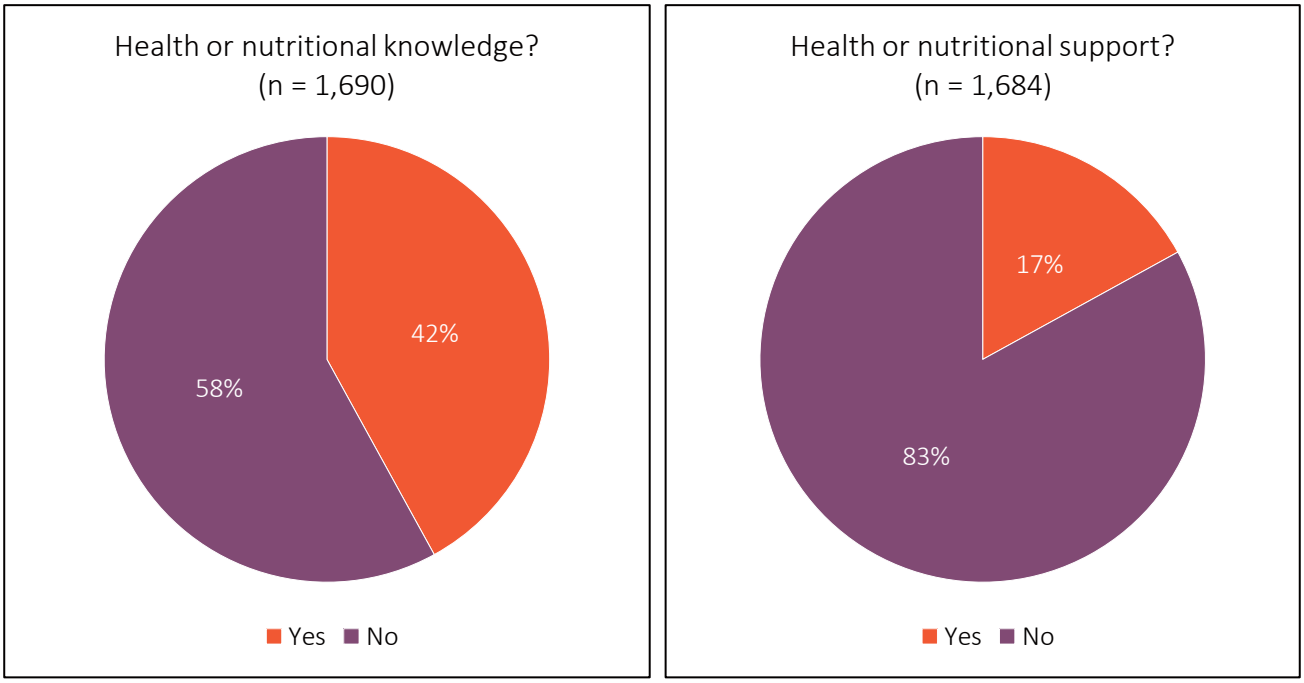
2.2 Health status, access to information and access to primary health care/health services

To understand the health status of the girls in our sample, we asked questions about their level of difficulty in completing certain normal tasks. Eight percent of girls had at least some difficulty seeing, which includes girls who have vision deficits and either do not have glasses or whose glasses do not adequately correct their vision.

About 4% had at least some difficulty hearing, regardless of whether they had hearing aids. This includes girls who have hearing deficits and either do not have hearing aids or whose hearing aids do not address the issue. Similar percentages reported having at least some difficulty walking or climbing steps and understanding or being understood in their usual language. Having at least some difficulty with memory or concentration was fairly common in our sample, with 15% reporting issues. About 3% reported experiencing some or a lot of difficulty washing or dressing themselves. About 74% of girls in our sample did not report any disability.

To understand food insecurity and undernutrition, a common health issue for adolescent girls in Nepal, we asked girls whether they had accessed opportunities to build health or nutritional knowledge or to receive health or nutritional support in the previous year. Of the 1,690 girls who responded to the question, 42% had accessed opportunities to build health or nutritional knowledge, and, of 1,684 girls who responded to the question, 17% had received health or nutritional support in the past year (Figure 5). Among the girls who reported at least some difficulty completing certain normal tasks, 54% had accessed opportunities to build their health or nutritional knowledge in the previous year and 18% had received health or nutritional support in the previous year.

Figure 5. Access to support resources and opportunities related to health or nutrition, sample of girls in Nuwakot and Tanahun



2.3 Access to sexual and reproductive health information, supplies and services

Prior studies in Nepal have provided estimates of adolescent girls' knowledge about the menstrual cycle, with this knowledge ranging anywhere from only 37% in 2009 to 90% in 2014 (Cunningham and D'Arcy, 2017). In our sample of 1,697 girls, 1,376 (81%) reported knowing about the menstrual cycle. This varied by grade level. Among girls in the intervention group (Grade 6) and girls in the comparison group in Grade 6, 71% and 73% knew about menstruation, respectively. In contrast, 93% of girls in the comparison group in Grades 7–12 knew about menstruation.

In our sample, 791 girls (47%) reported having started their menses. Of these girls, 63% rely on commercial pads and 35% rely on cotton cloth for menstruation management. Only 13 girls (1%) reported using reusable pads. Fourteen girls (1%) reported missing school in the previous two weeks for menstruation-related reasons. Six of these girls were in Grade 6 and eight were in Grades 7–12. Among these girls, 12 use sanitary pads (commercial or reusable) and 2 use cotton cloths for menstruation management.

Girls were asked whether they faced restrictions to their daily activities while menstruating. Of the 791 girls who responded, about 84% reported that they avoided making offerings or praying while menstruating. At least half of the girls who responded mentioned not being allowed to have physical contact with family members, and roughly 60% mentioned avoiding plants and seeds. Over 20% of girls do not enter the kitchen or cook while menstruating, with some mentioning being barred from looking in the direction of the kitchen or house.

Girls were asked whether they believed menstruation was a disease. In a 2014 study of adolescent girls (aged 11–19 years) enrolled in secondary school in Kailali district, about 5% of girls reported believing menstruation to be a disease, curse and/or sin (Hamal and Susma, 2014). In our sample, 17% of girls believed menstruation to be a disease and 9% said they did not know. The proportion of girls believing menstruation to be a disease was markedly higher in the intervention group (35%) as compared with the comparison group (14%). When comparing only girls in Grade 6, the belief in menstruation being a disease remained higher in the intervention group than in the comparison group (19%). The proportion of girls who were unsure whether menstruation was a disease was roughly 14% across intervention and comparison group girls in Grade 6, compared with only 3% in comparison group girls in Grades 7–12. Of the 14 girls who had missed school in the previous two weeks for menstruation-related reasons, none believed menstruation to be a disease.

About 28% of the girls in our sample reported having received menstrual hygiene support, such as access to sanitary pads and appropriate toilet facilities at school, in the previous 12 months. The proportion of girls receiving menstrual hygiene support was slightly higher in the comparison group (29%) compared with the intervention group (24%).

3. Bodily integrity and freedom from violence

Adolescent girls are at risk of early or forced marriage, sexual exploitation and violence (Decker et al., 2014; Yount et al., 2017; Raj et al., 2018). These risks are grounded in gender-inequitable norms and the acceptability of violence (Heise, 2011), and are exacerbated by poverty and political instability (Hanmer and Klugman, 2016).

While the phenomenon on the decline, over a third of young women aged 20–24 years in Nepal report being married by age 18, despite the fact that the legal age for marriage in Nepal is 20 years for boys and girls (UNFPA and UNICEF, 2017), highlighting a lack of enforcement of the law. Child marriage in Nepal persists in part because of structural factors such as poverty and lack of education, as well as because of inequitable gender norms, for example linking a family's honour with a daughter's chastity, the increasing un-marriageability of girls and women as they age and the belief that young brides adjust more easily to their husbands' home (Ghimire and Samuels, 2014; Pandey, 2017). However, elopement – or marriage initiated by the boy and girl, often without parental permission – is a growing contributor to child marriage, as these matches often occur at young ages (Ghimire and Samuels, 2014). Adolescents may use elopement to avoid arranged marriages, to escape problems at home or to become sexually active, which remains unacceptable outside marriage (UNFPA and UNICEF, 2017). Elopement also may be at the encouragement of parents who want to avoid expensive dowry payments (ibid.). Child marriage, whether arranged or adolescent-initiated, is associated with an increased risk of many adverse outcomes (Godha et al., 2013; Efevbera et al., 2017 Yount et al., 2018) including violence victimisation (Kidman, 2017) and school dropout (Ghimire and Samuels, 2014; Sekine and Hodgkin, 2017). Marriage is the most common reason for adolescent girls to leave school (MOHP, 2012), with the risk of dropout owing to marriage starting to increase in Grades 5 and 6 and peaking in Grades 7 and 8 (Sekine and Hodgkin, 2017).

The perpetration of violence in schools also may serve as a barrier to girls' academic achievement and capability development. Corporal punishment in schools is widespread globally, ranging from 13% to 97% of children, as exposed in a recent review (Gershoff, 2017). Corporal punishment interferes with learning and is associated with poor behavioural and health outcomes (Gershoff, 2017; Corboz et al., 2018). Corporal punishment is widely practised in Nepal. According to the Global School Based Student Health Survey in Nepal, 47% and 35% of male and female students, respectively, had been hit, slapped or otherwise physically hurt by their teacher in the previous 12 months (Aryal et al., 2017). Corporal punishment also is associated with peer victimisation and perpetration (Corboz et al., 2018). Peer victimisation and perpetration also are widespread and associated with adverse learning, behavioural and health outcomes into adulthood (Menesini and Salmivalli, 2017). According to a recent global UNICEF report (UNICEF, 2018), up to half of 13–15 year olds globally report peer-to-peer victimisation; in a survey conducted by USAID in Nepal, 28%, 15% and 12% reported peer-perpetrated physical, psychological and sexual violence, respectively (USAID, 2017). Approximately half of adolescent boys and girls reported being bullied in the month prior to the Global School Based Student Health Survey (Aryal et al., 2017).

Another prominent risk to girls' bodily integrity and freedom from violence in Nepal is human trafficking. According to the 2017 United States Department of State Trafficking in Person's report, Nepal is a source, transit and destination country for trafficking victims. In 2016, Nepal identified 419 cases of trafficking, almost all of whom were female and a quarter of whom were under the age of 18. Nepali girls may be trafficked for sex, forced labour, domestic servitude or begging, having been lured, increasingly through social media or mobile technologies, by employment agencies or brokers promising work or arranged marriages to foreign men (US Department of State, Trafficking in Persons Report, 2017). Parents may also fall prey to brokers who promise educational or work opportunities for their children. Victims of the 2015 earthquake and undocumented migrants are especially vulnerable.

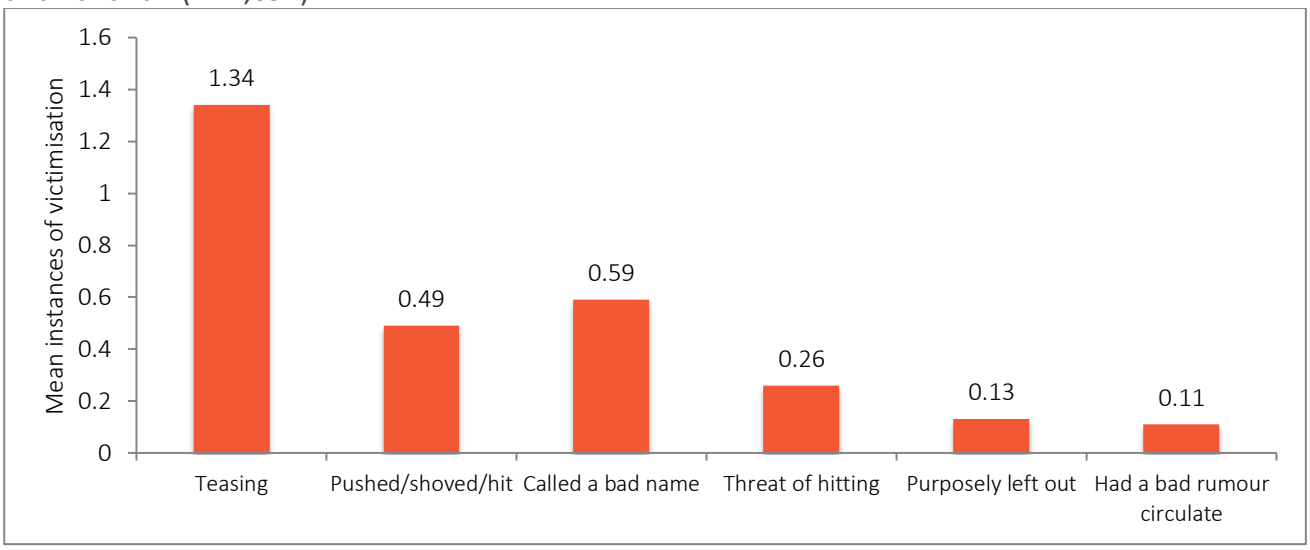
3.1 Introduction to data

Bodily integrity and freedom from violence are essential components of bolstering adolescent girls' capabilities. This section summarises findings from the baseline survey for the GAGE RtR GEP evaluation, including peer-to-peer aggression and victimisation during school, child marriage and trafficking.

3.2 Peer-to-peer emotional aggression and physical violence

We asked girls to describe how often in the previous week (one to six or more times) they had experienced and perpetrated any of six acts, five of which measured forms of emotional aggression and one of which measured physical violence.

Figure 6. Mean instances of victimisation experienced in previous week, sample of girls in Nuwakot and Tanahun (N=1,691)



To assess physical violence victimisation, we asked girls whether they had been hit, pushed or shoved in the previous week by a classmate, and, if so, to estimate the number of times. The majority of girls (78%) did not report experiencing any physical violence, but one in five girls reported having been hit, pushed or shoved at least once in the previous week. About 7% reported experiencing three or more instances of physical violence in the previous week. Based on the number of times the girls reported having experienced physical violence in the previous week, we created a physical victimisation score ranging from 0 to 6. Mean instances of physical violence in the prior week came to less than one across all study groups.

That said, over half of the girls in our sample (52%) reported experiencing at least one instance of emotional aggression in the previous week. Twenty-three percent reported having been called a bad name at least once in the previous week, with 10% reporting being called a bad name more than three times. About 12% reported being threatened with physical violence (hitting) in the previous week, and roughly 6% reported being left out on purpose or having had a bad rumour circulate about them. Based on the number of times the girls reported any of these five experiences (i.e. teasing, being threatened with physical violence, being called a bad name, being purposely left out or having been the subject of a bad rumour) in the previous week, we created an emotional aggression score, ranging from 0 to 30, with the higher number representing higher amounts of emotional aggression. On average, girls in the study groups experienced two to three acts of emotional aggression in the previous week.

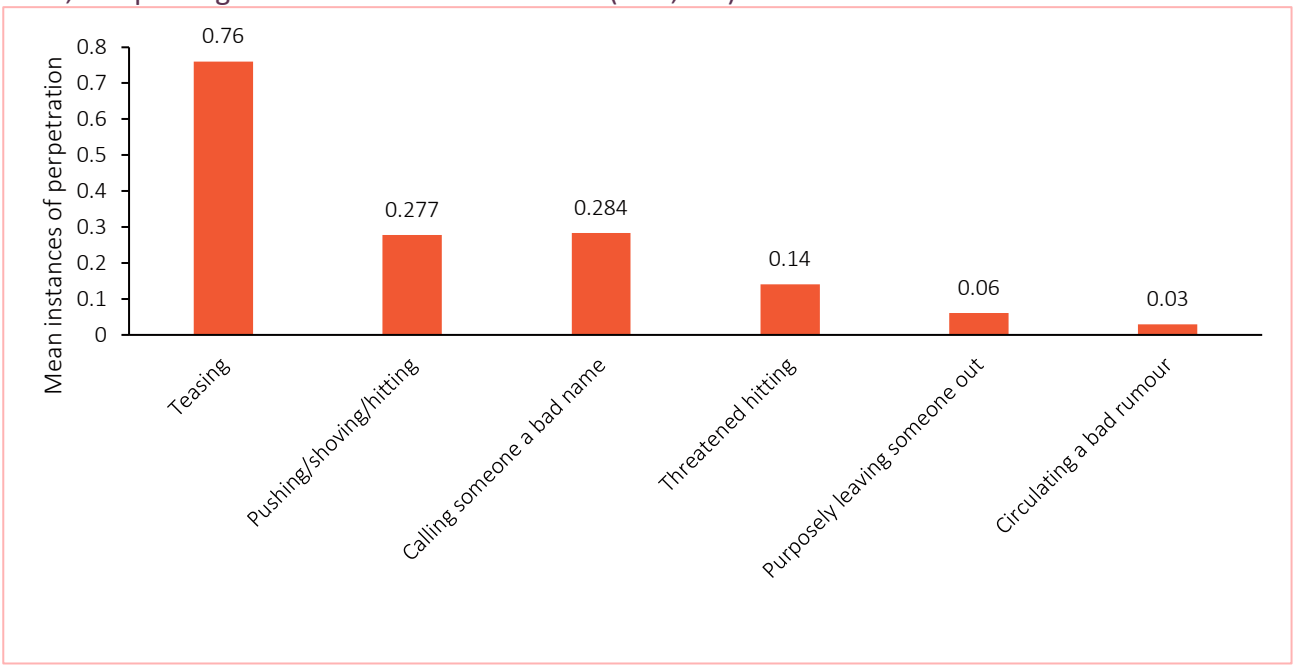
We also assessed perpetration of physical violence and emotional aggression among girls in our sample. Based on the number of times girls reported having perpetrated physical violence or emotional aggression in the

previous week, we created scores for physical violence perpetration (range: 0–6) and emotional aggression (range: 0–30). Across all study groups, girls reported experiencing physical violence and emotional aggression more frequently than perpetrating either. Only 14% reported having pushed, shoved or hit classmates in the previous week, but about 25% of these girls reported pushing, shoving or hitting classmates three or more times. Girls in the intervention groups reported perpetrating physical violence at a slightly higher frequency (17%) than girls in the comparison groups (13%). Mean reported instances of physical violence in the previous week were few, and under 0.5 across all study groups.

Of the 1,690 girls in our sample who responded, 47% reported having been the perpetrator of an act of emotional aggression in the previous week. Most frequently, girls reported teasing their classmates, with 29% doing so at least once and 6% doing so three or more times. About 13% reported calling a classmate a bad name, and 8% reported threatening to hit someone. Less than 3% reported either purposefully leaving classmates out or circulating bad rumours about classmates. On average, girls across the study groups had perpetrated about one act of emotional aggression in the previous week.

Table 5 and Figure 7 summarises these results.

Figure 7. Mean instances of perpetration of physical violence and emotional aggression in previous week, sample of girls in Nuwakot and Tanahun (N=1,690)



3.3 Child marriage

In the survey, we assessed knowledge, preferences and experience of child marriage. Although age 16 through 19 is a time of heightened risk of child marriage, only 2 girls in the sample reported being married. This finding is expected, since the vast majority of the study sample included in-school adolescents. However, of the two married adolescents, one was in school and the other was not currently enrolled. When we asked girls what the minimum legal age of marriage was for girls, the median estimate was 20, although estimates ranged from 10 to 30. Girls in our sample estimated the minimum legal age of marriage for boys to be 21 (median), with a range of responses between 10 and 40. Girls in our sample reported that the ideal age for women to marry was 22 (median), although responses ranged from 13 to 35. Girls reported that the ideal age for men to marry was 24, and responses ranged from 15 to 40. About 5.6% reported that, ideally, girls should marry at ages younger than the minimum legal age, with 1% reporting an ideal marriage age under 18 and 0.12% reporting an ideal marriage age under 15 (Figure 8).

Figure 8. Ideal age at marriage for women and men, sample of girls in Nuwakot and Tanahun (N=1,609)

3.4 Trafficking

To assess trafficking, we first asked about whether girls in the respondent's neighbourhood or community migrated. Across the samples, just over 20% reported that this occurred. When asked why girls migrated, only two girls in the entire sample reported being tricked, forced or kidnapped. Three percent reported migration for work, 8% for education, 4% in search of a better life, 4% for marriage and 3% because their parents had encouraged them to do so. We asked girls whether they had ever been approached with a good job offer somewhere else, to assess potential attempted trafficking; about 2% of girls reported having been approached with a good job offer elsewhere. Of these girls, four out of five (80%) lived in Tanahun district.

Table 5 summarises the results of the bodily integrity and freedom from violence scales.

Table 5. Bodily integrity and freedom from violence scales, sample of girls in Nuwakot and Tanahun

Outcome	Intervention group						Comparison group (6th grade)						Comparison group (7-12th grade)					
	N	Mean	Min	Max	n	%	N	Mean	Min	Max	n	%	N	Mean	Min	Max	n	%
Physical Violence																		
Victimization, scale 0-6	570	0.61	0	6			325	0.40	0	5			761	0.44	0	6		
Perpetration, scale 0-6	570	0.32	0	6			325	0.22	0	4			761	0.28	0	6		
Emotional Aggression																		
Victimization, scale 0-30	570	2.68	0	24			325	2.42	0	20			761	2.23	0	30		
Perpetration, scale 0-30	570	1.23	0	14			324	1.03	0	14			761	1.42	0	20		
Trafficking																		
Approached with a job offer elsewhere	569				9	1.6	325				5	1.5	761				20	2.6

Note: Higher scores indicate greater experience of violence or neglect

4. Psychosocial well-being

Psychosocial well-being is influenced by a mix of emotions and traits, such as the ability to persevere in the face of challenges, freedom from neglect, external supports and structural conditions. While psychosocial well-being is a very broad and multifaceted construct (Everson-Rose and Clark, 2010), its constituent parts are all crucial to girls' capability development. Some of the attributes that are especially relevant to academic achievement and that were assessed in the RtR baseline survey are discussed below.

Cognitive ability is important for academic and post-academic success but is not the only or even the most important attribute (Dweck et al., 2014; Kautz et al., 2014). Techniques, such as goal-setting (Goldstein, 1995), and personal attributes, such as motivation and perseverance, also are linked to psychosocial well-being and academic and professional achievement (Duckworth et al., 2007; Dweck et al., 2014). These attributes are mutable and can be fostered through various pathways, such as quality parenting, teaching, and mentoring (Dweck et al., 2014; Kautz et al., 2014).

Social support has long been linked to academic success for adolescents. Social support can be emotional or academic-oriented and may come from a number of sources, such as families, peers, teachers or other caring adults. Support from these sources is linked to better motivation, academic performance and social connectedness (Roorda et al., 2011; Rothon et al., 2012; Kiefer et al., 2015), although familial support may be the most impactful (Song et al., 2015). In Nepal, research among women who had succeeded in education underscored the importance of family support in their ability to do so (Parker et al., 2014). However, when family support is not present, other caring adults, such as teachers, can help fill that gap.

Adolescents develop in relation to their environments (Bronfenbrenner, 1979). Safe and enabling environments and freedom from neglect are essential to psychosocial well-being and adolescent achievement. Parental involvement (e.g. checking that homework is completed, parental surveillance) is linked to academic achievement (Shute et al., 2011; Rothon et al., 2012). According to the Global School Based Student Health Survey, approximately 50% of Nepali students report that their parents regularly checked that their homework was completed (Aryal et al. 2017). Similarly, safe, well-structured, nurturing schools bolster student's psychosocial well-being, academic achievement and school-connectedness (Aldridge and McChesney, 2018).

4.1 Introduction to data

This section describes girls' responses to questions about their motivation and perseverance in the face of challenges, the support they receive from families, friends and neighbours and factors of their environments.

4.2 Decision-making, goal-setting and perseverance

To capture decision-making and goal-setting behaviors in our sample, we asked girls to describe how well certain statements applied to them. We then summed their responses on a scale from 0-28, with higher scores representing higher motivation. In the sample overall, the mean Motivation score was 18.9. The mean for the intervention group was similar to the comparison groups'.

To capture perseverance, we similarly asked girls to describe how well certain statements applied to them, then summed their responses on a scale from 0-28. Higher scores represent higher resilience. In the sample overall, the mean Resilience score was 17.4, with similar means for the intervention and comparison groups.

Most girls reported having goals in their lives (97.2%) to at least some extent. To achieve these goals, they reported taking action (97.3%) and developing step-by-step plans (96.3%). For almost all girls (97%), it was important to them that they achieved their goals, but about 31.8% reported often or always having a hard time figuring out how to make their plans happen.

Though over 97% reported usually finishing the tasks they started and doing the things that they said they were going to do, more than half (54.5%) reported sometimes, often or always giving up when things got hard

(38.3%, 12.1% and 3.1%, respectively). About 93% reported feeling that they worked harder than others, and 84% reported that people counted on them to get tasks done.

4.3 Support networks

Parents and guardians especially have significant influence in shaping their adolescent children's educational outcomes. In our sample, 10 girls reported missing school in the previous 2 weeks because their parents or guardians had restricted them from going.

We asked girls to describe the support they received from family, friends, neighbours, their school and community. We summed their responses on a scale from 0 to 32, with higher scores representing higher family support. In the sample overall, the mean family support network score was 29.1, which was similar across study groups.

Virtually all girls (99%) reported that their parents tried to help them succeed and provided them with love and support. The same percentage reported asking their parents for advice and said their parents were good at talking about things with them.

In addition to their parents, girls often turn to their friends for support, with 94.8% reporting that their friends set good examples for them. About 90% of girls reported having good neighbours who cared about them and 76.3% reported having support from adults other than their parents.

About 97.6% reported feeling that they were in a school that cared about and encouraged children. The feeling of school support was the same among girls in the intervention and comparison groups.

4.4 Safe and enabling environment

To assess whether girls felt adequately supported and part of a safe and enabling environment, we asked about their feelings of security, whether they had structure in the form of rules at home and at school and whether they received support from their families, teachers and neighbours. Responses to these questions were summed on two scales: one for prosocial norms, ranging from 4 to 16, and one for social competence, ranging from 7 to 28. For both scales, higher scores indicate a safer, more enabling environment.

Across study groups, the mean score for prosocial norms was 14.5 or 14.6, suggesting that the girls' environments have fairly strong prosocial norms. Virtually all girls (99.2%) reported being happy to obey school rules. Almost all (95.1%) said they would like to volunteer if given the opportunity and believed everyone should be governed by laws (93.4%). About 84% reported caring about unfortunate people in the world.

In our sample, responses for the social competence scale ranged from the lowest possible score (7) to the highest possible (28), indicating wide variability in perceived social competence. While most girls reported being able to relate with others in a friendly way (94.3%) and knowing how to talk with others (87.3%), only 74.3% reported understanding what was expected when they interacted with others. Roughly four in five reported being able to talk to a stranger (80.5%) and knowing the difference between good and bad friends (83.3%). Most enjoyed taking part in social activities (93.4%).

Structure at home and school contributes to a safe and enabling environment. Generally, girls in our sample agreed in full or part that they attended a school that had clear rules (98.7%) and enforced those rules fairly (95.4%). They reported having good adult role models (95.3%) and having teachers who urged them to perform well in school (99%).

At home, most girls reported being part of a family that provided them with clear rules (98.6%) and urged them to perform well in school (99%). Ninety percent reported having neighbours who helped watch out for their safety, and 94% said that their families knew where they were and what they were doing at all or most times.

Table 6 summarises the results for each of the psychosocial well-being scales.

Table 6. Psychosocial well-being scales, sample of girls in Nuwakot and Tanahun

Outcome	Intervention group				Comparison (Grade 6)				Comparison (Grades 7–12)			
	N	Mean	Min	Max	N	Mean	Min	Max	N	Mean	Min	Max
Resilience and motivation												
Decision-making and goal-setting (0–28)	568	19.3	2	28	324	17.6	1	28	760	19.3	1	28
Perseverance (0–28)	570	4.23	1	5	326	4.33	1	5	761	4.60	1	5
Social support networks												
Social support networks (0–32)	568	29.0	18	32	323	29.0	17	32	759	29.2	14	32
Social connectedness with peers and communities												
Prosocial norms (4–16)	568	14.6	9	16	322	14.5	10	16	750	14.6	4	16
Social competence (7–28)	567	23.4	7	28	324	21.9	8	28	756	23.4	7	28

Note. Higher scores indicate more positive youth development and stronger social support networks

5. Voice and agency

In Nepal, girls' capability for voice, agency and mobility may diminish in adolescence, in part because of strict gender norms that mandate what a girl can or should do (Ghimire and Samuels, 2014). Such norms place value on girls' purity, confer social status on married girls and dictate the conception of passivity as an ideal quality in girls. Inequitable gender norms drive low secondary educational attainment, lack of female role models and teachers and limited options for employment and political participation, which in turn reinforce the belief that marriage is the most viable option for girls. Girls who marry early experience restricted voice, agency and mobility, as they also may be much younger than their husbands, beholden to mothers-in-law and unable to influence decisions regarding household matters or their own reproductive health in a meaningful way (Ghimire et al., 2015). Some gender-inequitable norms that diminish girls' voice, agency and mobility are shifting, as exemplified in the increased age at first marriage for girls, increased school enrolment, decreased birth rate and incorporation of social practices, such as dating (Regmi et al., 2011; Cunningham and D'Arcy, 2017).

Gender-inequitable social structures in Nepal are reflected in gaps between boys' and girls' voice, agency and mobility. Boys may be viewed as worth investing because of expectations of their future economic earning power, and so are more readily sent to school, whereas girls are not valued as highly because of the perceived lack of work for women and the need to pay dowry (Subedi, 2011). Dominant norms of masculinity are associated with decision-making and fortitude, which translate to decision-making power within the family and community, whereas femininity is associated with obedience (Cunningham and D'Arcy, 2017). While Nepali men still are expected to provide financially for the family, women still are expected to be the primary caretakers of the household and children (Lundgren et al., 2013; Cunningham and D'Arcy, 2017). Despite the expectations that girls face, evidence shows that Nepali girls aspire to go to college and to hold jobs outside of the home (Mathur et al., 2004). The presence of female role models in the community has been found to be a strong force for social norms change around girls' education and marriage in Nepal (Ghimire and Samuels, 2014).

In places where girls' sexual purity is valued, fear of consensual sexual activity outside of marriage and/or sexual violence victimisation and related stigma restricts girls' ability to make choices, act on choices and move freely in public spaces (International Women's Health Coalition et al., 2015). Hindu beliefs surrounding purity can lead to restrictions in mobility during menstruation, as menstrual blood is viewed as unclean (Posner et al., 2009). Once a month, girls may be kept from school, from their community and sometimes from their family (ibid.).

Because of these factors, the capabilities of girls to express their opinions freely, to provide input into decisions surrounding her life, to take on leadership roles and to participate meaningfully in household, school, community and political life is compromised during adolescence.

5.1 Introduction to data

This section outlines findings based on data from the adolescent intervention group and comparison group for voice, agency and mobility. These data cover girls' mobility and access to spaces, girls' meaningful participation and decision-making in family, community and school life, girls' civic engagement and girls' role models and peer groups.

5.2 Mobility and access to spaces

As girls reach adolescence, their mobility and access to public spaces may become restricted, which in turn may impede their ability to exercise voice and agency (WHO, 2003).

To assess freedom of movement, girls were asked whether they were 'free to go' to the homes of relatives and of friends or neighbours, markets, areas of worship and playgrounds or parks alone, only with a friend, only with a parent or guardian or not at all. Possible scores on the freedom of movement scale ranged from 8 to 32, with a higher score denoting greater freedom of movement. Girls also reported actual frequency in the previous month that they had visited each of these destinations. Possible scores on the frequency of movement scale ranged in theory from 0 (never allowed to go anywhere in the previous month) to 32 (went to all 8 places 5 or more times in previous month), such that higher scores denote higher frequency of movement.

Overall, at baseline, girls reported moderate levels for freedom of movement in all three groups (21–22). Across all three groups, the highest reported score for frequency of movement was the highest possible score, 32 (Table 7). Girls are most able to go alone to a friend or neighbour's house, with 70% able to go alone; less than 15% are able to go alone to the market, health centre or library. Actual reported freedom of movement was slightly higher, with mean scores of 23–24 across all groups. The lowest reported scores for frequency of movement were 8–11 across all groups, indicating very infrequent visits to designated places for at least some girls. At least some girls in all groups reported visiting all listed places at least five times per month, indicating frequent visits to designated places (Table 7).

Table 7. Mobility and access to spaces scales

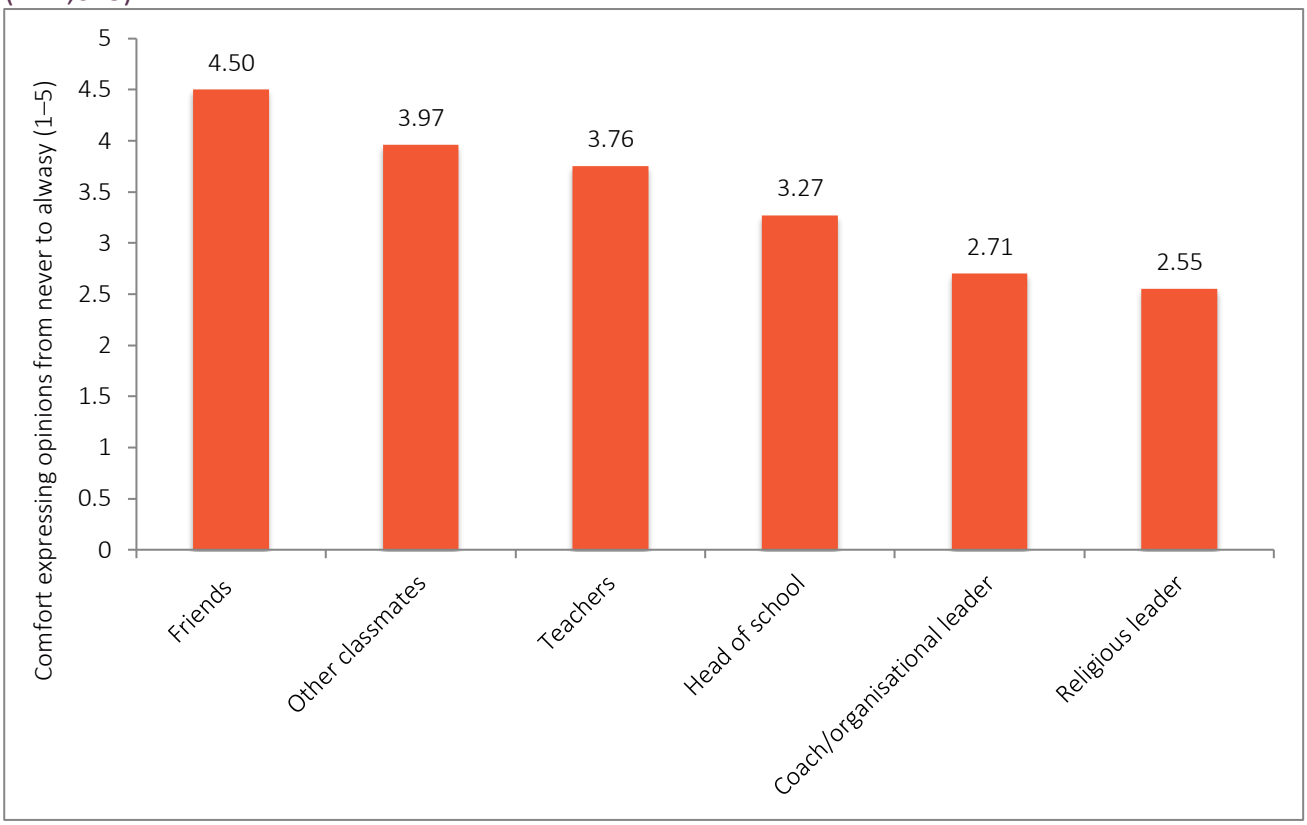
Outcome	Intervention group				Comparison (Grade 6)				Comparison (Grades 7–12)			
	N	Mean	Min	Max	N	Mean	Min	Max	N	Mean	Min	Max
Freedom of movement (8–32)	506	21.7	16	32	303	21.2	13	32	716	22.3	16	32
Frequency of movement (032)	537	22.8	8	31	316	23.9	9	32	734	23.8	11	32

Note: Higher scores indicate more voice, agency and mobility

5.3 Meaningful participation and decision-making in family, community and school life

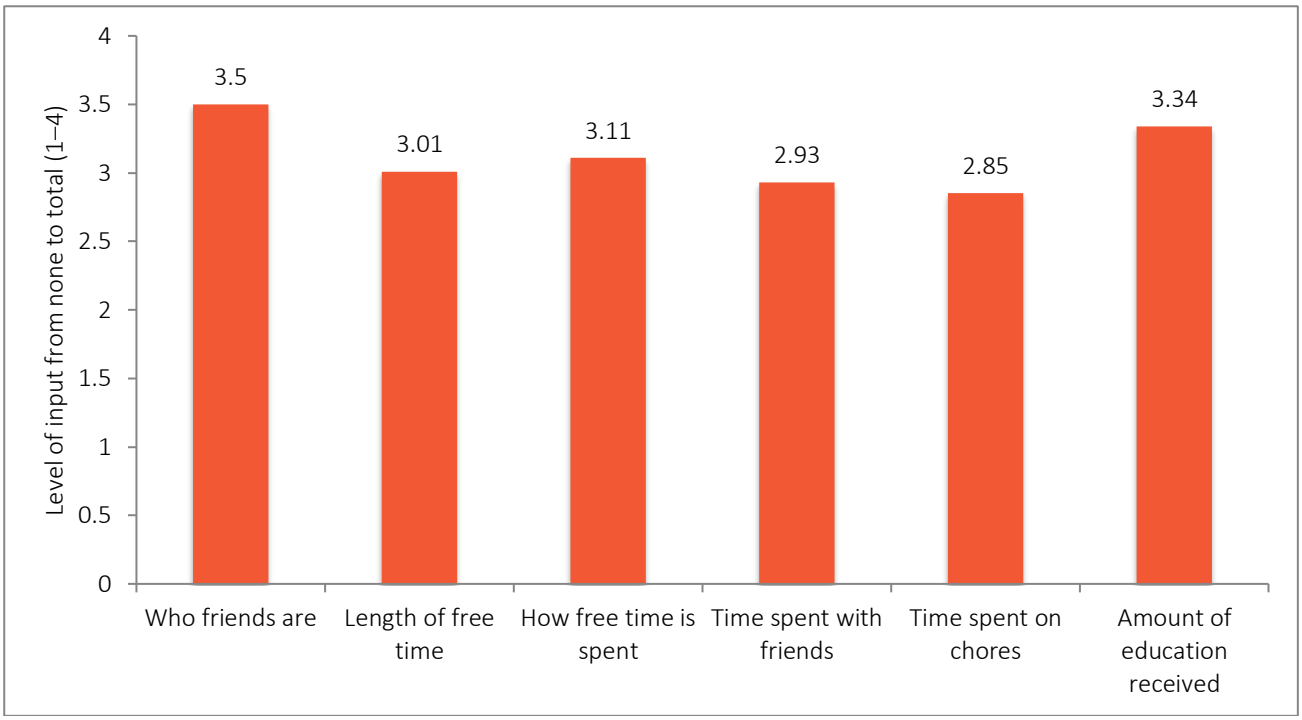
When girls are able to participate meaningfully in making decisions within their family, community and school, they are able to practise skills they can rely on as adults. At baseline, we asked girls how comfortable they felt expressing their opinions with friends, other students, school staff, coaches or organisational leaders, and religious leaders. Responses ranged from 1 (never felt comfortable) to 5 (always felt comfortable). The responses were summed to create a scale for intrinsic voice, ranging from a low of 6 to a high of 30, with higher scores indicating greater reported feelings of comfort expressing opinions with various types of individuals. Across the three study groups, the girls were equally comfortable expressing their opinions (scores ranging from 20 to 21) (Table 8). They were most comfortable expressing their opinions to friends, and least comfortable expressing their opinions to coaches/organisational leaders and religious leaders in the community (Figure 9).

Figure 9. Comfort expressing opinions with different groups, sample of girls in Nuwakot and Tanahun (N=1,643)



Girls also were asked about the level of input they had, from no input to total input, in decisions about various aspects of their lives, including who they wanted to be friends with, what they did with their spare time and how much education they hoped to receive (Table 8). Their responses to these and similar questions were summed to create a scale ranging from 6 to 24, with higher scores indicating a higher level of reported input in decision-making in various life domains. Girls across groups reported moderate levels of input into decisions on their lives, scoring 18–19 across groups, but this varied within each of the groups, suggesting differences across groups in the degree of input. Overall, girls had more input into decisions on who they wanted to be their friends and how much education they would get, and less on how much time they spent on household chores (Figure 10).

Figure 10. Level of input in various life domains, sample of girls in Nuwakot and Tanahun (N=1,696)



Leadership competence was assessed by asking girls how much they felt various leadership traits applied to them, with possible responses ranging from fully or partly agree to partly or fully disagree. Responses were summed to generate a scale ranging from 9 to 36, with higher scores denoting greater reported leadership competence (Table 8). Among girls in RtR-designated schools, the mean reported leadership competence was 27.6. For girls in Grade 6 in the comparison group, mean reported leadership competence was 26.9. For girls in Grades 7–12 in the comparison group, mean reported leadership competence was 28.4. Across all three groups, reports of leadership competence ranged widely, from 9 to 36 (Table 8).

Similar to the other dimensions of voice and agency, the girls in the three study groups did not differ much in their perceptions about their voice and agency within their school and community. Across all groups, mean scores were between 25 and almost 27 out of a total score of 32, suggesting moderate to high perceived voice and agency in these domains, although there was variability in girls' experiences in all groups, suggesting low to very high perceived voice and agency.

Table 8. Meaningful participation and decision-making scales: Nuwakot and Tanahun

Outcome	Intervention group				Comparison (Grade 6)				Comparison (Grades 7–12)			
	N	Mean	Min	Max	N	Mean	Min	Max	N	Mean	Min	Max
Comfort expressing opinions (6–30)	556	19.97	8	30	319	20.87	8	30	734	21.35	7	30
Input on decision-making (6–24)	570	18.19	6	24	325	18.78	7	24	761	19.16	7	24
Leadership competence (9–36)	564	27.59	9	36	324	26.91	9	36	755	28.38	9	36
Social action (8–32)	559	25.99	8	32	321	25.19	11	32	751	26.52	8	32

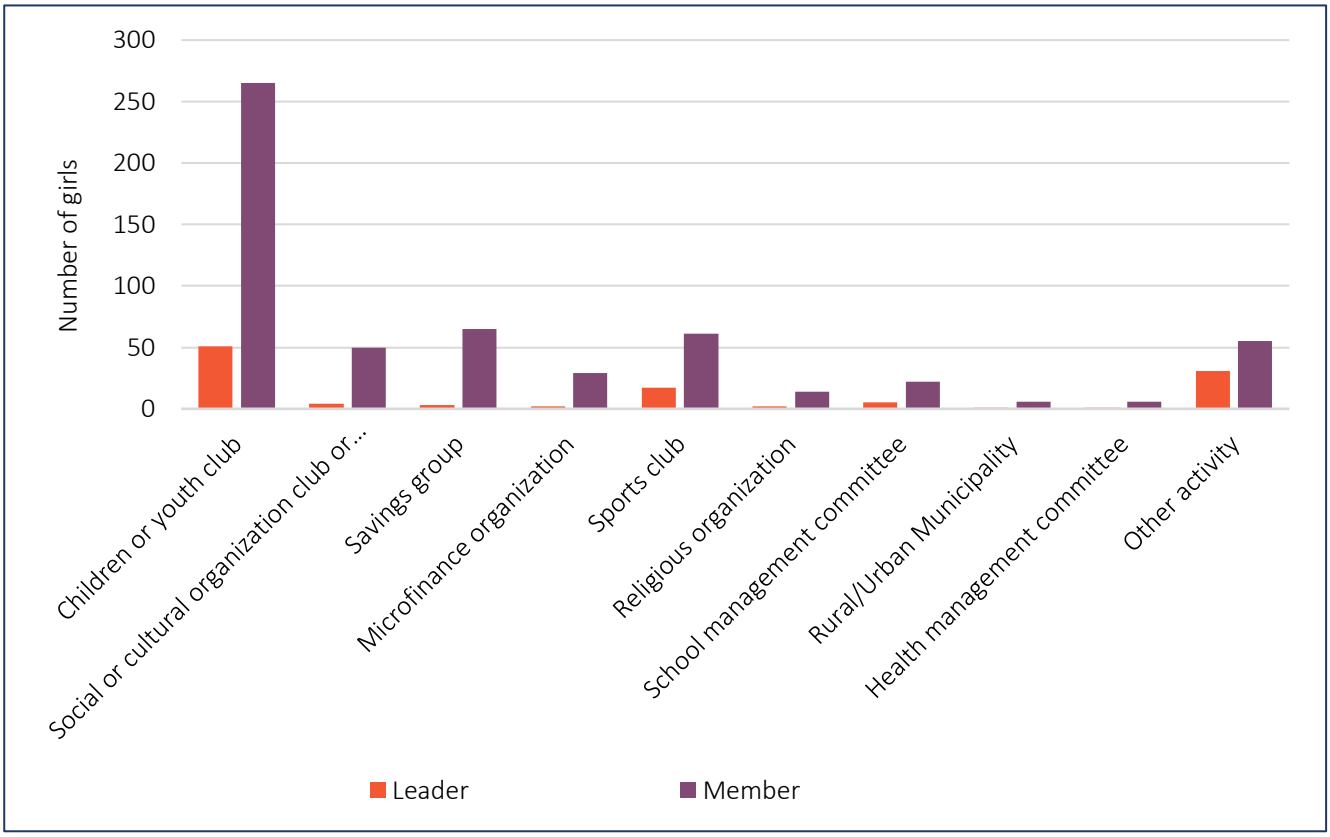
Note: Higher scores indicate more voice, agency and mobility

5.4 Civic engagement

When young people participate in civic activities, they practise the decision-making and citizenship skills needed for a successful transition to adulthood. In Nepal, adolescent participation is limited, even though there are avenues for participation in children's clubs and community groups.

Here, civic engagement was measured as the extent of involvement in activities including, but not limited to, children or youth clubs, social or cultural organisations, sports clubs and religious organisations. Girls were asked whether they were involved as leaders or members or if they were not at all involved in these and other activities. Involvement in children or youth clubs, sports clubs and savings groups was most common among the activities (Figure 11). Out of 316 of girls who reported involvement in children or youth clubs, 16% reported participation in leadership roles. Out of only 78 girls who reported involvement in sports clubs, 22% reported being involved as leaders. Only 6% of girls reported being involved in savings groups (Figure 11). Girls rarely reported engagement within school and health management committees (2% and 2%, respectively) or at the rural/urban municipality level (1%). Other activities that girls reported involvement in were class leadership positions (e.g. the class management committee), clubs for dance, literature and science, and international and local volunteer organisations, including the Red Cross and the Sunshine Foundation.

Figure 11. Civic engagement, sample of girls in Nuwakot and Tanahun (N=1,697)



5.5 Role models

Girls in the sample discussed some issues in their lives, most often with their mothers or female guardians. Some issues that were discussed were the amount of education they desired (85%), problems with friends (56%) and of bullying by classmates or friends (23%).

Compared with male friends, female friends also tended to be more common role models for girls –specifically, girls discussed the amount of education they desired more often with female friends (82%) than with male

friends (58%). Girls also discussed problems more often with female friends (43%) than with male friends (24%).

With respect to the type of work they wanted to do, however, girls spoke most often with their fathers or male guardians (48%), followed by their mothers or female guardians (35%), female friends (24%) and then male friends (15%). With respect to experiences with puberty, girls spoke most often with their sisters (62%), followed much less often by their fathers or male guardians (28%) and then their mothers or female guardians (8%). Few girls discussed the type of person they wanted to marry; those who did discussed the topic most often did so with their sisters (2%).

6. Economic empowerment

Household poverty is an important driver of girls' early marriage and entry into the workforce, rather than staying in school (Bajracharya and Amin, 2012). Early marriage, in turn, has implications for women's long-term economic empowerment (Yount et al., 2018). In adulthood, women's control over assets is important for their instrumental agency in the home, and, in turn, the health of their children. In Nepal nationally, women who own land are significantly more likely to have the final say in household decisions; in parallel, the children of mothers who own land are significantly less likely to be severely underweight (Allendorf, 2007). That said, qualitative data from the plains of Nepal reveal that 'patriarchal' bargains in the household are complex, with young married couples strategising to achieve economic independence from their parents and parents-in-law (Gram et al., 2018).

In addition, recent comparative research on youth savings, including in Nepal, has shown that youth can and will save, but that the structure must be in place for them to do so. This structure includes accounts that are easy to understand and access, affordable and relevant to youth goals, and that motivate saving (Johnson, 2015). In addition to savings, entrepreneurship for women also is identified as a pathway out of poverty and towards gender equality. Studies have shown that entrepreneurship, in the form of small and medium-sized enterprises, can, over time, empower women and transform power relations in a society, creating new spaces for women to lead economically. However, women's entrepreneurship in many lower-income countries historically has centred on informal business ventures, which addresses daily survival without real economic empowerment. In Nepal, 'embedded structural and socio-cultural constraints' may challenge women entrepreneurs, making it difficult for them to realise their potential as business leaders (Bushell, 2008). Policy measures, business and management training, and the promotion of entrepreneurial networking systems are recommended ways to empower women entrepreneurs and create opportunities for leadership in the mainstream business sector in Nepal (ibid.). Even earlier in the life course, multi-component programmes that combine livelihood training, 'soft skills' and social interaction appear to hold the greatest promise to enhance the prospects for economic empowerment among adolescent girls (Kabeer, 2018).

6.1 Introduction to data

Under conditions of persistent constraint and social change in Nepal, it is important to understand the economic empowerment of adolescent girls before they transition to marriage and adulthood. The sections below provide a description at baseline of the economic empowerment of adolescent girls in RtR-designated schools, as well as in the comparison groups.

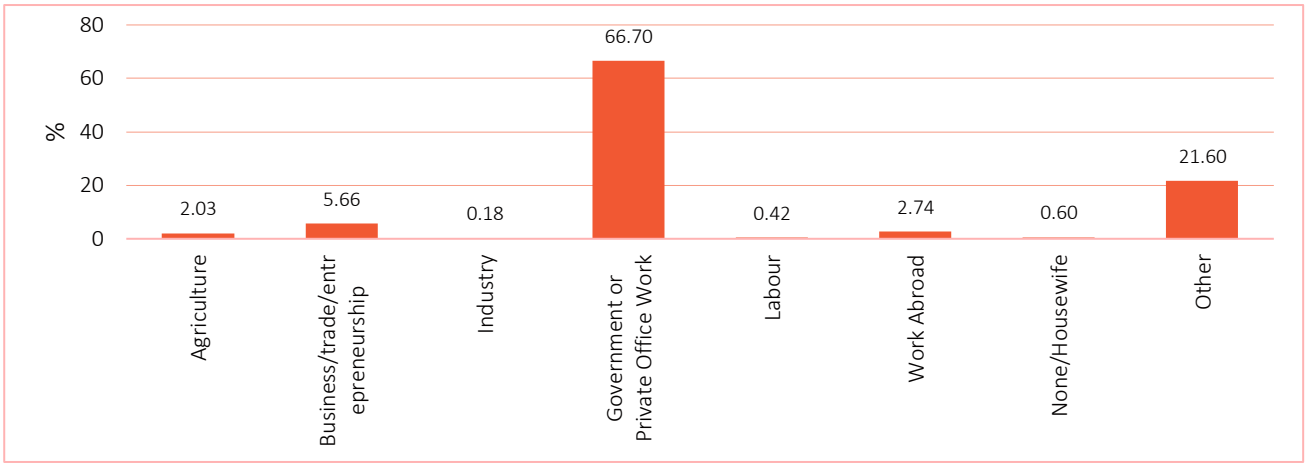
6.2 Economic aspirations

We asked adolescent girls in Nepal about the types of occupations to which they aspire, as well as their confidence in their ability to pursue those occupations. In our sample, almost all girls aspired to work; only 0.6% reported having no aspirations of working or reported aspiring to be a housewife.

The majority of girls (2 out of 3) in our sample aspired to careers in government or private office work. About 21.6% aspired to other types of work, including medical and allied health professions (medicine, nursing, dentistry, pharmacy, social work), teaching, law enforcement (police officers) and aviation (air hostesses, pilots). Others aspired to work in arts and culture, as artists, actors, choreographers, singers and models.

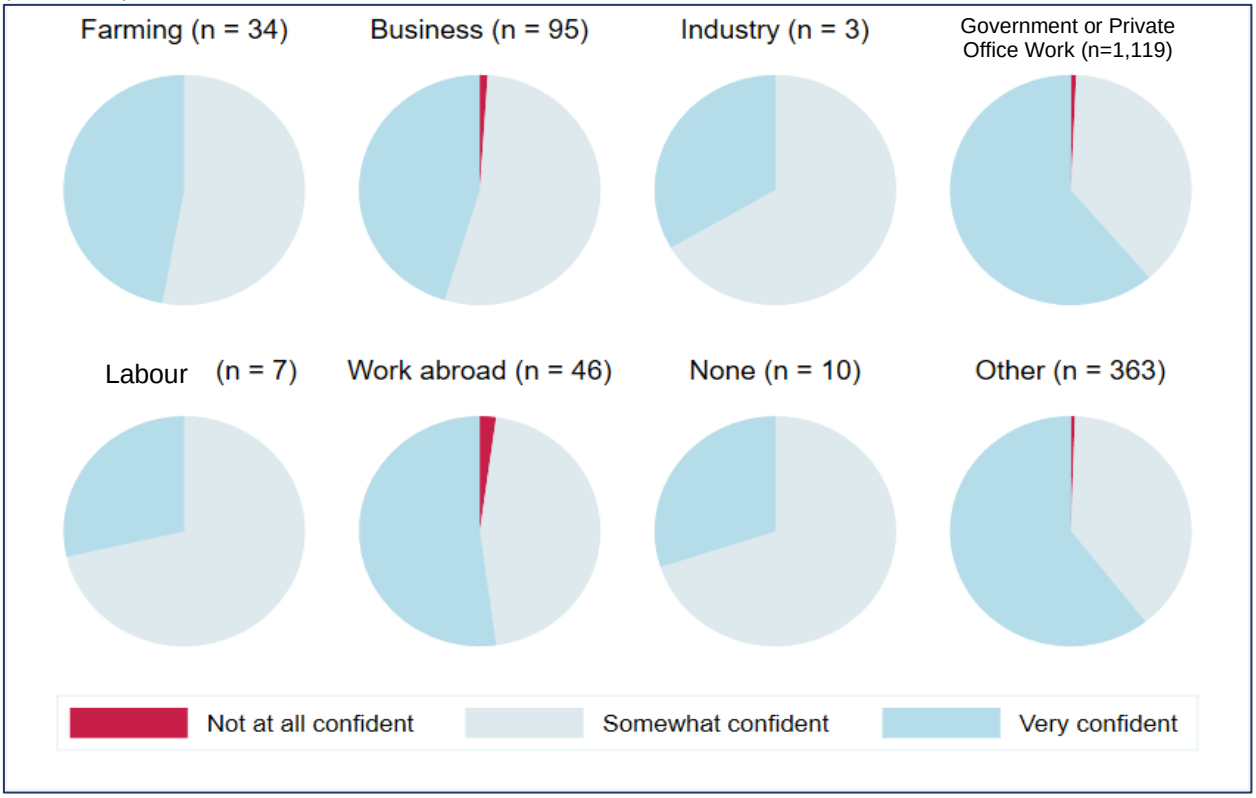
Very few girls (0.4%) aspired to daily wage or labour work, and 2% aspired to work in agriculture, horticulture and/or livestock. About 6% of girls in our sample aspired to a career in business, trade and/or entrepreneurship, and 3% aspired to foreign employment. Figure 12 presents these results.

Figure 12. Types of work to which respondents aspire, sample of girls in Nuwakot and Tanahun (N=1,677)



Girls' confidence in their ability to do the type of work to which they aspire varies minimally by the type of occupation to which they aspire. All girls aspiring to careers in agriculture, industry and daily wage work or labour were somewhat or very confident in their ability to work in those occupations. Almost all girls who aspired to careers in business, government or private office work, medical and allied health professions, teaching, aviation and law enforcement (99%) were somewhat or very confident in their ability to work in those occupations. Girls who aspired to work abroad had the highest percentage of responses indicating no confidence in their ability to work in their desired occupation; however, this percentage was very small (2%). Figure 13 presents these results.

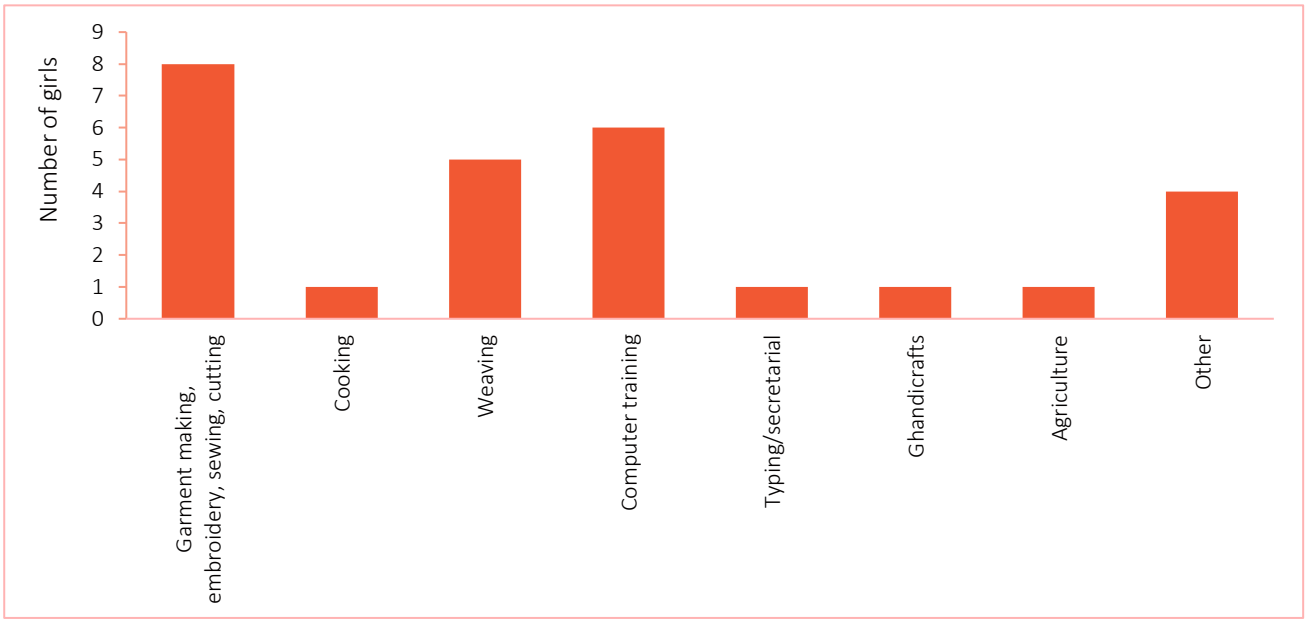
Figure 13. Confidence in ability to work in aspired occupation, sample of girls in Nuwakot and Tanahun (N=1,677)



6.3 Skills-building and training

We surveyed girls about their involvement in vocational training programmes. In our sample, 19 girls (1%) were involved in such programmes. Girls could report involvement in multiple programmes. Most (13) were involved in garment-making, embroidery, sewing, cutting and weaving. Seven were involved in computer training and typing or secretarial work programmes. Other vocational training programmes listed on our questionnaire were agriculture, cooking and small cottage industry (handicrafts), each of which had one girl participating. Girls also reported participation in other types of vocational training programmes, including making flower pots. Figure 14 displays these results.

Figure 14. Types of vocational training reported, sample of girls in Nuwakot and Tanahun (N=19)



6.4 Access to resource endowments, savings and credit

Our current understanding of adolescent girls' access to credit and savings cooperatives, particularly in rural Nepal, is limited (Cunningham and D'Arcy, 2017). To understand how adolescent girls build financial and other economic assets, we asked the girls in our sample about their informal, formal and other savings. Informal savings included savings stored at home or in savings clubs, and formal savings included savings in banks, cooperatives and other formal groups.

Out of 1,697 girls who responded, 766 girls (45%) reported having their own savings. Most savings were informal. The median reported amount of informal savings was 500 rupees, in contrast with a median of 0 in formal savings. These findings are supportive of prior evidence suggesting that few girls make use of formal savings avenues (Cunningham and D'Arcy, 2017). The median amount of all other savings was also zero. These findings did not vary between intervention and comparison groups. The highest reported amount of informal savings was 30,000 rupees; formal savings, 70,000; and other savings, 18,000 rupees. This distribution may indicate a preference for formal savings as overall savings amounts increase.

Conclusion

At baseline, adolescent girls in Nuwakot and Tanahun districts of Nepal, which were selected for this study, demonstrated reasonably high levels across GAGE's six capability domains (GAGE Consortium, 2017). There were negligible differences between intervention and comparison group girls across these domains. Across RtR intervention and comparison groups, girls' aspirations and goal-setting regarding school and future work, in tandem with their confidence in their ability to attain their aspirations and goals and their moderate to high perceived voice and agency, stood out. The social networks adolescent girls across groups described were supportive, and the combination of adolescent girls' self-motivation and support from parents, community members and their school creates an enabling context for girls' continued education. Girls in the sample are performing well academically, and a high percentage have at least some, mainly informal, savings accounts.

Areas for focused attention include components of the capability domains of education and learning, health and SRH, bodily integrity and freedom from violence, and psychosocial well-being. Specifically, there is a need to address the barriers to education that still exist for adolescent girls and may undermine them in attaining education, despite their personal motivation and support networks; to deal with continued notions of impurity surrounding menstruation; to investigate the frequency of peer victimisation reported by girls; and to strengthen girls' perseverance in working towards goals that are difficult to attain. Also, attention could be directed towards encouraging girls' participation in sports and civic engagement, as these activities contribute to the strengthening of adolescent capabilities across the six domains.

Education and learning

Learning outcomes

Across RtR intervention and comparison groups, ASER scores for reading and maths were comparable. Thus, at baseline, no differences were apparent in these important academic achievements across intervention and comparison groups. The high reading ASER scores in our sample are reflective of the population of girls aged 12 in Nepal in 2011 who could read and write (90%) (CBS, 2014). Literacy is improving in younger generations in Nepal, particularly among girls.

Educational aspirations

Girls across both samples had high aspirations for their educational attainment, and, to match this, nearly all girls had high levels of confidence that they would attain their educational aspirations. These findings indicate that girls who are in school are generally motivated to be there and to continue to attend. Given the documented low attainment of girls' secondary education in Nepal (MOHP, 2017), it seems that a desire on girls' part to go to secondary school is there but existing barriers may impede their ability to finish secondary education. Girls' educational goal-setting and belief in their own ability to attain their goals, in combination with a supportive environment across family, school and community, are key factors in creating an optimal context during adolescence for girls' continued education.

Barriers to education

Across Nepal in 2011, 65% of 12-year-old girls finished primary school, and 34% of 12-year- old girls completed lower secondary (CBS, 2014). Of 12-year-old girls in Nepal, 88% were currently attending school in 2011. Despite the improvement in adolescent girls' access to education, our sample identified several barriers to girls' school attendance, specifically illness/disability, the need to partake in agricultural work to earn money, social, religious and cultural norms, and a lack of interest in attending school. Menstruation as a barrier to school attendance, while an evidence-based concern in the far and mid-western regions of Nepal (Posner et al., 2009), was not identified as a barrier in this sample of girls.

These barriers, in combination and on their own, cause girls across both intervention and comparison groups to miss school and should be targeted in programmatic work. As important as girls' aspiration and belief in

themselves to attend school are, girls' lack of interest in school is detrimental in terms of achieving sustained education through adolescence. It may make them vulnerable to early marriage (Lee-Rife et al., 2012). Similarly, if girls are not attending school and are not married, they may be at higher risk of trafficking while searching for jobs to support themselves. Attention to girls who lack interest in school is thus necessary, as they become vulnerable to dropping out and related issues that come with not being in school.

Health and sexual and reproductive health

Health and disability

Overall, girls across the sample are generally healthy; however, nearly a quarter reported some functional challenge. Girls who reported at least some difficulty accessed health and nutritional knowledge at a slightly higher proportion than all others in the sample, which may indicate that girls with health needs are accessing needed health knowledge and support in school. The high percentage of girls with a functional challenge warrants focused attention as these challenges may lead to lower educational attainment over time if not addressed.

Menstruation restrictions

Knowledge of menstruation was common across samples. Despite high levels of knowledge about menstruation, and the aforementioned low level of girls missing school as a result of menstruation, menstrual restrictions still existed for adolescent girls in this sample. The common belief that menstruation is a disease was present, indicating that menstruation is still connected to ideas of impurity.

Notable menstrual restriction had occurred among this sample of adolescent girls, further illustrating that menstruation is still conflated with impurity. While menstruation does not appear to be keeping girls out of school in this sample, only a portion of girls had their menses, and it continues to be restrictive and should be a programming target.

Furthermore, there is a need for increased menstrual hygiene support, especially given sustained restrictions around adolescent girls' activities and movement during menstruation. Adolescent girls in Nepal struggle to access health care and SRH services (Adhikari et al., 2007), so providing quality menstrual hygiene support, including access to sanitary pads and appropriate facilities to change and dispose of them, in schools is of paramount importance in strengthening their access.

Bodily integrity and freedom from violence

Peer-to-peer emotional aggression and physical violence

Roughly one in five girls reported any experience of physical violence in the past week, and about one in seven reported perpetrating physical violence. Acts of emotional aggression were much more common, with girls in our sample reporting experiencing two to three acts of emotional aggression in the past week and perpetrating one act themselves. Most commonly, girls teased their classmates and called a classmate a bad name. Physical violence and emotional aggression can lower girls' desire to attend school, particularly during adolescence.

Child marriage

Child marriage was rare in our sample, although present: two girls reported being married. Girls in this sample were in earlier adolescence, which may be why presence of child marriage was negligible. Although at this baseline time point girls in our sample were not married (apart from two), as they progress forward into their secondary education the risk of child marriage will increase. Overall, girls were knowledgeable about the minimum legal age to marry in Nepal (i.e. 20), and their median estimates for the ideal age to marry were above this minimum for both girls and boys. However, the range of estimates for ideal age at marriage included adolescence, even among some girls who were aware of the minimum legal age. More research should be done to understand what factors into adolescent girls' estimation of ideal marriage age.

Child marriage in Nepal, and in other places across the globe, is a problem driven by an underlying lack of value for the girl child. Thus, interventions to address child marriage need to focus on both ending child marriage and increasing girls' value, and should cover aspects such as empowerment, the provision of quality education, mobilisation of families and communities to defy social norms that perpetuate child marriage, providing and strengthening services to girls, engagement of men and boys as active agents of change in ending child marriage and implementation and enforcement of laws and policies to eliminate child marriage.

Trafficking

Adolescent girls reported migration for a variety of reasons, including work, education and marriage. Potential attempted trafficking often takes the form of a stranger approaching a girl with an offer of a good job elsewhere. A small percentage of girls reported that other girls in their neighbourhood or community had migrated for this reason, and one reported that other girls had migrated explicitly because they were tricked, forced or kidnapped. Girls in this sample, because of their younger age, may be unaware of the risk of trafficking, as parents and primary caretakers are their decision-makers and subsequently the ones traffickers approach. So, while girls in this sample did not appear at high risk of trafficking, parents and caretakers' perspectives are needed to supplement this finding.

Psychosocial well-being

Goal-setting and perseverance

Adolescent girls in the sample collectively reported setting goals that were important to them to achieve, and further reported acting to achieve these goals. While this was common, girls also reported difficulty in acting to achieve goals, and a little over half of girls reported giving up on goals when faced with difficulty. This indicates a need to direct effort into strengthening girls' perseverance in achieving difficult-to-achieve tasks and mentoring students through challenges.

Support networks

Parents of adolescent girls in the sample were generally supportive of girls' continued education and served as advisors to girls regarding school queries. The communities of girls in this sample were supportive and caring, and the school environments were reported to be safe and enabling. The combination of parental, community and school support is key to providing a context optimal for adolescent girls' continued education. Almost all adolescent girls in the sample identified peers as influencers. It is important to note the power of peer influence, and the potential for this influence to be positive or negative.

Safe and enabling environment

Reflective of the support network findings, adolescent girls across this sample reported that they felt safe and enabled in their school and home environment. This stands in contrast with the high reporting of violence victimisation and experience of emotional aggression at school by girls in the sample.

Voice and agency

Mobility and access to spaces

Girls' freedom of movement in our sample varied widely, though none were entirely restricted in terms of places they were free to visit. While some girls reported total freedom to visit markets, homes of relatives, friends or neighbours, areas of worship and playgrounds or parks, most reported some limitations in accessing these spaces.

Meaningful participation and decision-making in family, community and school life

Girls in our sample were moderately comfortable expressing their opinions in school settings and reported moderate input into decisions about their lives; overall, they perceived themselves to have moderate to high

voice and agency. Leadership competence was high across all groups. Directing girls to leadership opportunities that they may be well suited for also may allow them to practise skills in meaningful decision-making.

Civic engagement

As in prior studies of adolescents' participation in civic groups in Nepal, participation in civic groups among girls in our sample was limited. We found the highest involvement in children or youth clubs, as expected, followed by involvement in sports clubs and savings groups. Understanding the barriers, if any, that limit civic engagement in adolescents may lead to their increased participation in activities that allow them to practise the critical decision-making and citizenship skills they will need in adulthood.

Role models

Adolescent girls in our sample looked for role models most frequently in their mothers/female guardians, with whom they readily discussed such topics as the amount of education they desired and problems they encountered with their friends. Following mothers/female guardians, female friends tended to be common role models for girls, much more so than male friends. This is likely because of societal barriers that arise to prevent girl–boy interactions during adolescence.

Importantly, when seeking to discuss their professional aspirations, girls sought advice from their fathers/male guardians before anyone else. This may indicate that girls perceive fathers/male guardians to be more knowledgeable and experienced in professional domains than others in their familial and social networks.

Economic empowerment

Economic aspirations

Almost universally, adolescent girls in our sample aspire to work and are confident in their ability to work in their desired occupation. Most girls aspire to government or private office work; others aspire to professional careers, including those within the medical and allied health fields, law enforcement and teaching. A small percentage of girls aspire to more customary forms of work, such as agriculture, horticulture and daily wage work or labour. In Nepal in 2011, the most common occupations for women were agricultural, forestry and fishery work (31%) and service and sale work (19%). Ten percent of women held professional occupations (CBS, 2014). Girls in our sample who expressed confidence in their ability to work in their desired occupation also were confident in their ability to achieve their desired level of education, suggesting they did not perceive educational attainment to be a barrier to their occupational aspirations.

Skills-building and training

Participation in vocational programmes was rare among adolescent girls in our sample, perhaps because much of the current vocational programming in the country is targeted to older adolescents (ages 15 years or older) compared with those represented in our sample (Gupta-Archer and Stavropoulou, 2017). Among the few girls involved in vocational training programmes, most were involved in activities related to garment-making, such as embroidering and sewing. The remainder were involved in typing and secretarial work.

Access to resource endowments, savings and credit

Just under half of the adolescent girls in our sample had their own savings, most of which were stored informally, at home or in savings clubs. Though the median amount of savings was not especially high, the prevalence of savings suggests adolescent girls exercise at least some agency over their financial decisions.

Implications for policy and practice

Implications of the baseline findings are summarised below.

- Education facilitates a positive transition to adulthood, but barriers still exist for girls in Tanahun and Nuwakot districts of Nepal.
- Education is associated with increased gender-equitable values, stronger social networks, improved knowledge, better health outcomes and access to civic engagement opportunities.
- The barriers identified in the preliminary findings of this study should be addressed in programmatic work. Barriers identified include some illness or disability, the need to partake in agricultural work to earn money, social, religious and cultural norms including menstrual restrictions among some portion of girls with their menses.
- Mobile phones are a key platform to reach adolescent girls, even in geographically remote communities.
- The perception of menstruation as a disease and the presence of menstrual restriction continue despite the existence of country-level policy and pragmatic interventions.
- Programmatic work must address social norms surrounding menstruation, to allow policy and programmes to be effective.
- Bolstered menstrual hygiene support is needed.
- Attention to the high level of reported peer-perpetrated violence in school is needed in empirical research and programmatic work
- Programmes should continue to encourage girls' aspirations and goal-setting, but should simultaneously incorporate programming on strengthening girls' perseverance to pursue difficult goals.
- Adolescent girls' civic engagement and sports participation should be encouraged and a focus area in programming.
- It is necessary to determine the barriers to adolescent girls' civic engagement and sports participation.
- There is a need to engage adolescents in local government to address gender discrimination and harmful practices against adolescent girls.
- Adolescents become financial actors at a young age.
- Efforts to empower adolescent girls should include skills relevant to income-earning and financial management.
- Vocational training opportunities could be better aligned with girls' expressed vocational aspirations.

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About GAGE

Gender and Adolescence: Global Evidence (GAGE) is a nine-year longitudinal research programme generating evidence on what works to transform the lives of adolescent girls in the Global South. Visit www.gage.odi.org.uk for more information.

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