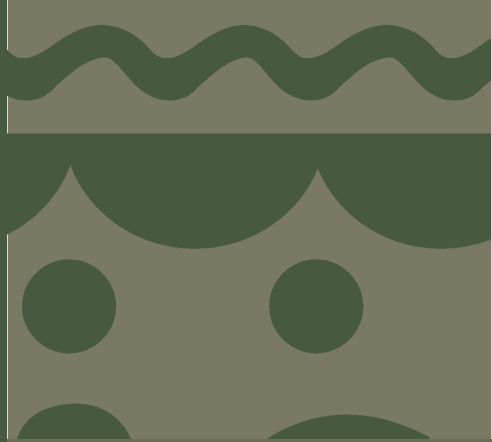




Broadening girls' horizons:
Effects of a life skills education programme in
rural Uttar Pradesh



This report is the result of a collaborative project undertaken by Prerana and the Population Council to implement a life skills education programme for unmarried adolescent girls in rural Uttar Pradesh and to evaluate its effectiveness. The intervention programme aimed to empower unmarried adolescent girls aged 13–17 years and address their vulnerabilities by building their agency; fostering egalitarian gender role attitudes; building awareness about sexual and reproductive health matters; developing vocational skills and future work aspirations; and influencing perceptions about marriage and their ability to negotiate marriage-related decisions, delaying marriage and first pregnancy.

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Executive summary

Policies and programmes in India have increasingly recognised that adolescents—particularly girls—are a vulnerable group with special needs, including in the area of sexual and reproductive health. Several programmes have been implemented, moreover, that aim specifically to enable adolescents to make a safe transition to adulthood. These programmes, generically entitled “life skills education programmes,” cover a wide range of activities. Many have sought, for example, to make girls aware of the world around them; create awareness of growing up issues; enhance their mobility; empower them to express their opinion and to participate in decisions affecting their lives, including when and who they will marry; promote egalitarian gender role attitudes; enhance their control over material resources through the development of a savings orientation; or build vocational skills among girls. However, the effectiveness and acceptability of these programmes have rarely been rigorously tested; consequently, the extent to which participation in these interventions influences the lives of adolescents remains unclear, hence limiting the lessons learned for replicability.

In order to fill this gap in evidence, a project was undertaken to assess the extent to which a promising and extensively implemented life skills education programme—the Better Life Options programme for adolescent girls in India developed by the Centre for Development and Population Activities (CEDPA), and implemented by, among others, Prerana, a Delhi-based NGO that has been implementing this programme since 1990—can empower adolescent girls and address the vulnerabilities they face. In particular, the project sought to assess the extent to which participation in the intervention programme enhanced girls’ awareness of sexual and reproductive health matters; built agency in terms of mobility, decision-making and sense of self-worth; fostered egalitarian gender role attitudes; developed vocational skills and future work aspirations; influenced perceptions about marriage and their ability to negotiate marriage-related decisions; and succeeded in delaying marriage and first pregnancy.

The intervention programme was delivered over 6–9 months among unmarried adolescent girls aged 13–17 in one block (Malihabad) of rural Lucknow district of Uttar Pradesh. The intervention included several components—the establishment of groups, which enabled girls a safe space to meet and interact regularly; the implementation of a life skills education curriculum focusing on the development of girls’ agency, fostering egalitarian gender role attitudes, raising awareness of health matters, particularly of sexual and reproductive health and rights; and the implementation of a livelihood skills training course, in this case, tailoring. Programme implementation was accompanied by a strong monitoring component.

A quasi-experimental research design was used to evaluate the effectiveness of the intervention programme. Baseline surveys were conducted among all unmarried girls aged 13–17 residing in the intervention site and an ideally matched control site (Maal block) prior to the implementation of the intervention. In addition, 9–15 months following the completion of the intervention, we conducted a panel

survey of all girls enumerated during the baseline survey, irrespective of whether or not they were interviewed at the time. Our evaluation is based on a total of 1,038 girls who were interviewed in both baseline and endline surveys; of all girls eligible to participate in the programme, a total of 390 girls aged 13–17 (roughly two-fifths of all unmarried girls in this age group residing in the intervention site) were enrolled in the programme.

The findings from this study are by and large encouraging. The programme aimed to enhance girls' agency and their expression of egalitarian gender role attitudes. Findings suggest that participation in the intervention did indeed have a positive and significant net effect on enhancing girls' agency—that is, their decision-making ability, mobility, sense of self-efficacy and access to resources—and their gender role attitudes beyond what would be expected in the absence of programme participation. Also evident is that after accounting for secular trends and external factors in both the intervention and control sites, the positive net effect of exposure to the intervention on agency and gender role attitudes was much greater among girls who attended the programme regularly—that is, attended half or more of the sessions—than among irregular programme participants, underscoring the importance of sustained exposure to the intervention. Evidence of enhanced agency following participation in the intervention programme also comes from girls' own assessments in the endline survey and post-intervention in-depth interviews.

The programme also sought to increase girls' awareness, particularly of sexual and reproductive health matters. Findings indicate an appreciable upward secular trend in the proportion of girls who were aware of various sexual and reproductive health matters, including the legal minimum age at marriage, sex- and pregnancy-related issues, contraception, HIV and other STIs, and particularly their in-depth awareness of these matters. Even after accounting for secular changes and other external factors in both the intervention and control sites, much of the improvement in girls' awareness—particularly in-depth awareness—can indeed be attributed to exposure to the intervention, and in particular, to regular participation in programme activities.

Finally, the intervention aimed to change girls' perceptions about the timing of marriage, and in the longer run, to delay marriage and first pregnancy. Findings confirm that the programme was indeed effectively able to alter preferred age at marriage among intervention participants (as indicated by the positive net increase in the proportion wishing to marry after adolescence). As the observation period of two years inhibited us from following up participants over a longer period of time, findings on marriage experiences are suggestive. However, these findings are encouraging: while declines in the percentage of 15–19 year-olds who were married could not be discerned, among those who married, age at marriage increased modestly, by 5–6 months, among those who participated in the intervention programme, compared to no significant change among either girls from the control site or non-participants from the intervention site.

Evidence from assessments of the experiences of girls who participated in the intervention highlights the importance of group membership in providing girls opportunities to meet and interact with their peers and more generally, to overcome their social isolation. At the same time, a large proportion of girls did indeed gain a livelihood skill; about two-thirds reported that they were able to practise their skill independently or

with a little help, and almost all reported that they intended to use the skill to generate an income for themselves in the future.

Also notable are findings regarding the acceptability of the intervention programme. For many girls the programme provided a legitimate space to interact with their peers, and the opportunity to learn a new skill was valued. There is considerable evidence suggesting that programme content was largely acceptable to the participants, and many adolescents admitted that this was the first time somebody had talked to them about such topics as self-image, marriage and parenthood, rights, future planning or issues related to girls' health.

Several lessons can be drawn from the experience of implementing the Better Life Options model that are relevant for programmes intended to empower adolescent girls in rural areas. Most challenging was the programme's inability to attract the most socially and economically vulnerable girls; this finding calls for special efforts to understand the obstacles faced by these girls and reorient programmes to enable girls to overcome them. Second, our findings stress the importance of regular participation in programme activities. However, in our programme, regular participation was achieved by just three-fifths of all participants, raising questions about the ability of programmes to influence outcomes for girls more generally. These findings call for attention to ways of ensuring regular exposure to programmes. Third, findings that exposure to the intervention programme succeeded in developing a savings orientation among girls call for efforts that enable girls to access formal savings mechanisms, such as bank and post office savings accounts, on the one hand, and provide girls support in operating these accounts, on the other. Fourth, findings that girls equipped with a vocational skill did not necessarily use that skill or generate an income from it call for measures that enable girls to bridge the schism between successful completion of the training programme and independent use of the skill, and to link them with potential market and small business opportunities through existing channels, such as self-help groups. Fifth, findings suggest that girls' families must be involved in programme activities—parents must be informed, for example, about their daughters' progress and accomplishments, involved in formulating strategies that would enable their daughters to use the skills learned to generate an income and should be encouraged to shed traditional attitudes—including with regard to early marriage—and recognise the potential of their daughters.

Finally, we note the need for a longer observation period; two years was not sufficient to enable an exploration of the longer-term effects of the programme, for example, with regard to income generation and control over resources, as well as marriage-related decision-making and the actual timing of marriage and pregnancy among all intervention participants.

Our findings have confirmed that the provision of a well-structured life skills education programme, such as the Better Life Options model that offers girls training in a livelihood skill while exposing them to new ideas about their roles, is indeed a promising approach for empowering adolescent girls in rural India, and has resulted in significant improvements in the agency, awareness and attitudes of girls in the intervention site. Questions remain, however, about the extent to which life skills education models can effectively be

implemented in out-of-school settings in rural areas. Findings also suggest that the positive changes described above were observed only among those girls who participated regularly in the programme, and not necessarily among the larger group of girls whose exposure to the programme was more sporadic or the most vulnerable among whom relatively small proportions participated in the programme. Our findings have pointed to the myriad of conditions that must be addressed in rural settings in order for such a programme to make a more universal mark among girls.

Introduction

India—home to about one-fifth of the world's population aged 10–24—has witnessed significant progress with regard to the education and health status of its young people. Youth in India are now healthier and better educated than earlier generations; they experience puberty at younger ages, and marry and have children later than in the past (IIPS and Population Council, 2008; Jejeebhoy and Sebastian, 2004). Even so, within the gender-stratified social structure that prevails in India, adolescent girls (aged 10–19) continue to remain vulnerable. While most girls are enrolled in school, many discontinue their education at an early age. In many cases, marriage continues to take place in adolescence, and for many girls even before they are aged 18. The social networks of adolescent girls are limited and they remain socially excluded; their freedom of movement and ability to exercise choice in matters relating to their own lives is also restricted (IIPS and Population Council, 2008; Jejeebhoy et al., 2006; Sebastian, Grant and Mensch, 2005; SEWA et al., 2006). Adolescent girls typically enter adulthood without market skills or access to economic resources.

Policies and programmes in India have increasingly recognised that adolescents—particularly girls—are a vulnerable group with special needs, including in the area of sexual and reproductive health. The National Population Policy 2000 recognised, for the first time, that adolescents constitute an under-served group, and underscored the need to “ensure for adolescents access to counselling and services, including reproductive health services, that are affordable and

accessible,” and to “strengthen primary health centres and sub-centres to provide counselling, both to adolescents and also to newlyweds” (MOHFW, 2000). Likewise, the National Youth Policy 2003 recommends the establishment of “adolescent clinics” to provide counselling and treatment and “youth health associations” at the grassroots level to provide family welfare and counselling services to young people (Ministry of Youth Affairs and Sports, 2003). The Reproductive and Child Health (RCH) Programme II recommends that friendly services are to be made available to adolescents, married and unmarried, girls and boys (MOHFW, 2006).

Several programmes implemented in India aim specifically to enable adolescents to make a safe transition to adulthood. These programmes, generically entitled “life skills education programmes,” cover a wide range of activities. Many have sought, for example, to make girls aware of the world around them; create awareness of growing up issues; enhance their mobility; empower them to express their opinion and to participate in decisions affecting their lives, including when and who they will marry; promote egalitarian gender role attitudes; enhance their control over material resources through the development of a savings orientation; or build vocational skills among girls. However, the effectiveness and acceptability of these programmes have rarely been rigorously tested; consequently, the extent to which participation in these interventions influences the lives of adolescents remains unclear, hence limiting the lessons learned for replicability.

In order to fill this gap in evidence, a project was undertaken to assess the extent to which a promising and extensively implemented life skills education programme—the Better Life Options Programme for adolescent girls in India, developed by the Centre for Development and Population Activities (CEDPA), and implemented by, among others, Prerana, a Delhi-based NGO that has been implementing this programme since 1990—can empower unmarried adolescent girls and address the vulnerabilities they face. In particular, the project sought to assess the extent to which participation in the intervention enhanced unmarried girls' awareness of sexual and reproductive health matters; built agency in terms of mobility, decision-making, sense of self-worth and access to economic resources; fostered egalitarian gender role attitudes; developed vocational skills and future work aspirations; influenced perceptions about marriage and their ability to negotiate marriage-related decisions; and succeeded in delaying marriage and first pregnancy.

This report documents the intervention, and evaluates the effectiveness and acceptability of this model. Specifically, the report assesses the extent to which participation in the intervention achieved the objectives outlined above, and describes girls' engagement in various aspects of the intervention, notably livelihood skills building, as well as their assessment of the intervention.

Background

Available evidence has documented the multiple vulnerabilities adolescent girls face in India. Although age at marriage has been increasing over time, marriage continues to occur in adolescence among large numbers of young women: the recent National Family Health Survey (NFHS-3) reiterates that more than two-fifths (47%) of all women aged 20–24 in India were married before 18 years (IIPS and Macro

International, 2007). Findings from the sub-national *Youth in India: Situation and Needs* study and small-scale studies conclude that adolescent girls have a limited voice and negotiating power in decisions affecting their lives, including those related to their work, education, choice of husband and timing of marriage; few opportunities to generate an income of their own; and a heavy domestic workload that precludes in many cases the acquisition of school-based or other livelihood skills. Many studies have noted girls' social isolation and limited access to peer networks as well as their limited control over income, savings and assets, although there is some evidence that girls are more likely than boys to save (Alexander et al., 2007; IIPS and Population Council, 2008; Jejeebhoy et al., 2006; Jejeebhoy and Sebastian, 2004; Levitt-Dayal et al., 2003; Mehra, Savithri and Coutinho, 2002; Mensch et al., 2004; Santhya et al., 2008; Santhya, McGrory and Haberland, 2001; Sebastian, Grant and Mensch, 2005; SEWA et al., 2006; Sodhi and Verma, 2003). Other studies have found that patterns of socialisation reinforce gender double standards; for example, adolescent girls are carefully supervised and their mobility restricted relative to that of their brothers (Mehra, Savithri and Coutinho, 2002). Some of these studies have also documented adolescent girls' lack of awareness of sexual and reproductive matters. In summary, these studies have highlighted, in different ways, the limitations girls experience in exercising control over their own lives, which clearly has longer-term implications for adolescent girls as they make the transition to adulthood and their future lives.

There are a number of “best practices” that aim to address the vulnerability of adolescent girls in India and other developing country settings. These include the provision of non-formal education, the development of livelihood skills, and raising awareness

of sexual and reproductive health issues. One practice that is widely considered to have promise is life skills education. While the content of life skills education for adolescents varies across programmes, most cover the following: building negotiation and communication skills; broadening girls' horizons; raising awareness of sexual and reproductive matters; countering gender disparities, double standards and power differentials; and inculcating a savings orientation. Several programmes have also focused on providing livelihood or vocational skills training and providing opportunities for wage employment before marriage (see, for example, Mathur, Greene and Malhotra, 2003; NRC and Institute of Medicine, 2005).

In India, a number of programmes for adolescents have incorporated components of life skills education. These programmes have been implemented both by the government and in the NGO sectors.

Amongst the programmes being implemented by the government, the most widely implemented programme is the Adolescence Education Programme (AEP), developed by the Ministry of Human Resource Development, Department of Education, and the National AIDS Control Organisation (NACO) for school-going adolescent boys and girls in Classes 9 and 11. This programme, which is being conducted in most states of the country, seeks to build adolescents' skills in making important life decisions; improve interpersonal communication; foster egalitarian gender role attitudes; and raise awareness about growing up matters, as well as about HIV (www.nacoonline.org). The Kishori Shakti Yojana (and its 1990s predecessor, the Adolescent Girls Scheme) is being implemented in 2,000 blocks covered by the Integrated Child Development Services (ICDS); the programme focuses on training adolescent girls in

vocational skills as a means of empowerment and building their self-esteem. Programmes being implemented through Mahila Shikshana Kendras (under the Mahila Samakhya programme) in 32 districts of selected states focus, similarly, on providing girls non-formal education and leadership training. The Rajiv Gandhi National Institute of Youth Development has, likewise, implemented life skills programmes that aim to instil leadership qualities and broaden the personality of young female and male participants.

However, evidence of the effectiveness of such programmes is limited. A recent evaluation of the Kishori Shakti Yojana in Uttar Pradesh notes that only about 37 percent of the participants reported that they had benefited from the programme; however, a large proportion expressed an interest in acquiring information on health (44%) and acquiring vocational training (31%), mainly in tailoring, handicrafts and the preparation of food items at home (Ministry of Women and Child Development, Government of India, and Formative Research and Development Services, 2006).

A larger number of life skills education programmes have been implemented by NGOs, or elements of these life skills programmes have been incorporated within ongoing NGO programmes in several parts of the country. Notable among these are programmes developed by CEDPA, New Delhi; the Centre for Health Education, Training and Nutrition Awareness, Ahmedabad (CHETNA); MAMTA, New Delhi; Sahyog, Mumbai; and Pathfinder International, New Delhi. Demonstration models have also been implemented, such as by the Self-Employed Women's Association (SEWA) in Gujarat and the International Council for Research on Women in New Delhi, Maharashtra, Bihar and Jharkhand.

The focus, content, target groups and duration of different programmes have varied widely. Some programmes have focused almost exclusively on improving sexual and reproductive health indicators; others have also focused on building livelihoods skills; changing prevailing youth norms and gender role attitudes; and enhancing the agency of adolescent girls. For example:

- The SEWA programme, undertaken in collaboration with the Population Council in 2002, was a livelihoods skills building project to support girls aged 13–19 years in Gujarat. The approximately 18-month intervention, imparted through adolescent girls' groups, provided participants basic and specialised training for adulthood, vocational skills training and gave them an exposure to the outside world.
- Pathfinder International's project, PRACHAR (Promoting Change in Reproductive Behaviour in Bihar), undertaken in 2001–05, aimed to improve the health and welfare of young mothers and their children by changing traditional norms and attitudes with regard to early childbearing and promoting birth spacing among young couples. The intervention targeted adolescent boys and girls aged 12–19, as well as newly-wed and young couples and their gatekeepers. Activities focused on building awareness among girls about a range of reproductive health matters, including those relating to puberty, personal hygiene, contraception and child spacing. A more general life skills education programme did not form part of the intervention.
- ICRW-led multi-site interventions, implemented during 2001–07, also sought to improve the reproductive health status of married and unmarried youth. Programmes located in specific

settings in Maharashtra and Delhi addressed youth aged 12–22, and included efforts to raise sexual and reproductive health awareness, and at the same time provide a more general life skills education. In addition, the programme entitled Development Initiative Supporting Healthy Adolescents (DISHA), implemented in four NGO settings in Bihar and Jharkhand (2005–07), aimed at improving youth skills and capacity through peer education, youth group formation and livelihood skills training, and creating an enabling environment to address the sexual and reproductive health needs of youth.

- CEDPA's Better Life Options programme, introduced in 1990 and implemented through its *Choose a Future!* curriculum, is perhaps one of the earliest life skills education programmes to have been implemented in India. CEDPA's programme focuses not only on building the leadership skills of adolescent girls but also addresses the need for change in prevailing norms, and builds awareness of health issues, notably sexual and reproductive health and issues of citizenship. The programme also instils among girls an orientation for planning for the future. Activities are group-based and most include a livelihood skills training component.

Few assessments have been undertaken that have evaluated the extent to which participation in these life skills education programmes has influenced girls' lives. The programmes that have been evaluated include, for example, the CEDPA programme (CEDPA 2000; 2001), the SEWA programme (SEWA et al., 2006); ICRW-led programmes, including the DISHA programme in Bihar and Jharkhand (Kanesthasan et al., 2008; Pande et al., 2006); and the PRACHAR project implemented by Pathfinder International (Wilder, Masilamani and Daniel, 2005). The findings

of these evaluations have indeed reported promising results, and evidence from the evaluations of these programmes suggests that these interventions have had an impact on improving adolescent girls' agency in some way. For example, the evaluation of the CEDPA programme (which compares girls who had participated in the programme a few years following the intervention with a group that had not) suggests that young women who had participated in the programme were better informed, had more decision-making authority and mobility than other women. The evaluation of the SEWA programme, likewise, concludes that participation in the programme improved girls' decision-making authority, self-esteem and mobility, but cautioned that these positive changes accrued only to those girls who had attended the programme regularly. The evaluation of the multi-site programmes implemented by ICRW suggests that participation in this programme did increase self-confidence and negotiating power among unmarried girls and helped delay their marriage. Finally, the evaluation of the PRACHAR project indicates significant increases in youth awareness and practise of contraception, and delays in the first and subsequent pregnancies. Although all these evaluations have shown improvements in different aspects of adolescent girls' lives, none, aside from the PRACHAR evaluation, were evaluated using quasi-experimental designs with pre- and post-intervention assessments.

Although there are discussions around expanding these programmes, the feasibility of scaling these up and the question of whether life skills education does unambiguously influence adolescent girls' agency and result in positive outcomes in terms of reproductive health and choice remain unanswered. At a time when the Government of India is committed to incorporating life skills education within the

national Reproductive and Child Health programme, it is imperative that evidence is generated about the extent to which existing models are effective and feasible.

Project setting

The project was located in rural Lucknow district, in the state of Uttar Pradesh. Uttar Pradesh, situated in north India, is the most populous state in India, containing about one-sixth of India's total population and almost one-tenth of its total land area (Office of the Registrar General and Census Commissioner, India, 2001a). Uttar Pradesh is one of the most poorly developed states in the country. According to the 2001 census, about 80 percent of the state's population resides in rural areas (Office of the Registrar General and Census Commissioner, India, 2001a). Moreover, only 20 percent of rural households have access to electricity, 38 percent have access to drinking water within the premises, and 19 percent have access to a toilet facility (data not shown in tabular form). The overall sex ratio of the rural population was 904, significantly lower than the national average (946).

Early marriage is widespread: nearly one in four rural women aged 20–24 in 2005–06 were married before age 15 and about three-fifths (59%) before they were aged 18, the legal minimum age at marriage for females in India (see Table 1.1). In terms of educational attainment, only about two in three girls (66 percent) aged 10–14 and slightly more than half (55 percent) of those aged 15–19 could read or write; of those who had ever attended school, 94 percent of those aged 10–14 were still in school at the time of the census, compared to just 54 percent of those aged 15–19 (see Table 1.1).

The state government has recognised the vulnerabilities of adolescents. Although Uttar Pradesh

Table 1.1:

Profile of the population and adolescent girls, rural Uttar Pradesh and the study district, Lucknow

Indicators	Rural Uttar Pradesh	Rural Lucknow district
Sex ratio^a		
Overall population (females per 1,000 males)	904	887
Child (females per 1,000 males aged 0–6)	921	925
Age at marriage (women aged 20–24)^b		
% married by age 15	23.3	NA
% married by age 18	58.6	NA
Literate (%)^c		
Girls aged 10–14	65.5	72.1
Girls aged 15–19	55.1	59.8
Educational attainment (%)^c		
Girls aged 10–14 who had completed at least Class 4	33.9	33.6
Girls aged 15–19 who had completed at least Class 7	32.2	33.9
Current school attendance^c		
Of those ever enrolled in school, % currently in school		
Girls aged 10–14	93.5	83.0
Girls aged 15–19	53.5	50.9
Economic activity (%)^{d,e}		
Girls aged 15–19 currently working	17.9	14.6

Sources: ^aOffice of the Registrar General and Census Commissioner, India, 2001a; ^bIIPS and Macro International, 2008; ^cOffice of the Registrar General and Census Commissioner, India, 2001b; ^dOffice of the Registrar General and Census Commissioner, India, 2001c; ^eOffice of the Registrar General and Census Commissioner, India, 2001d.

Note: NA: Not available.

does not have a youth policy, the state's population policy (Government of Uttar Pradesh, 2000) has identified measures to raise the age at marriage of girls. These include, for example, engaging religious and community leaders and women's groups to bring about a change in attitudes regarding early marriage, using the media to disseminate information on the adverse health consequences of early marriage, making marriage registration compulsory and even denying government jobs to those who marry early. The population policy document also argues for the provision of family life education to adolescent girls and boys, and recognises the need for reforms to encourage gender equity and the empowerment of women. However, whether or not these strategies have been implemented, much less evaluated, remains unclear.

The project was conducted in rural Lucknow district. Despite housing the state capital Lucknow, rural areas of the district are poorly developed (see Table 1.1). For example, the sex ratio in rural areas of Lucknow district was 887, far lower than the state average. The percentage of girls who were literate was slightly higher in rural Lucknow than in rural areas of the state as a whole. Data on educational attainment show, however, that just one-third of girls aged 10–14 had completed at least Class 4 and a similar proportion aged 15–19 had completed Class 7, rates similar to those reported among adolescents in rural Uttar Pradesh more generally. Finally, participation in economic activity was just slightly higher among girls in rural Lucknow district than those in the state more generally.

The project was conducted in the rural areas of two blocks of Lucknow district: Malihabad and Maal. More specifically, 18 villages of Malihabad served as the intervention site and 9 villages of Maal as the control site. Using data from the 2001 census, 18 census villages in Malihabad were selected so as to ensure representation from better and less developed villages in terms of female literacy and percentages of households from scheduled castes and tribes. These villages were also selected so as to ensure geographical contiguity, on the one hand, and ensure a sufficient number of adolescent girls aged 13–17—the focus of the project—on the other. In a similar way, 9 contiguous villages in Maal block were selected as the control site.

The selection procedure also ensured that the intervention and control sites had roughly similar literacy levels, and distributions by religion and scheduled caste/tribe. In addition, it ensured that both sites were located at a similar distance (roughly 20 km) from Lucknow, the district headquarters. The average distance between the intervention site and the control site was approximately 30 km, which ensured that no diffusion of programme occurred from the intervention to the control site.

Although not required by study design, the project opted to include a larger number of intervention villages than control villages so as to maximise the variability of experience in conducting the intervention.

Study design

A quasi-experimental research design, with panel surveys undertaken in the intervention and control sites prior to the implementation of the Better Life Options programme (baseline) and at its conclusion (endline), was used to evaluate the effects of

intervention programme. The intervention programme focused on unmarried girls aged 13–17 at the time of the baseline survey.

Prior to conducting the baseline survey, a complete enumeration of households in selected sites (both intervention and control) was undertaken; this included a listing of members of each household by age and marital status. Potential respondents were identified through household listing and all eligible adolescent girls were invited to participate in the survey. The baseline survey was conducted between April and July 2006.

Special efforts were made to track all baseline respondents in the period between the baseline and the endline survey. Starting from December 2006, two researchers visited all households with baseline respondents every six months, and recorded their marital and migration status. If the adolescent interviewed at baseline had married or migrated out of the village, her address was sought and recorded. In this way, we successfully obtained new addresses for the majority of girls who had moved away from the village.

A complete panel survey was conducted at the endline; that is, two years following the baseline survey, and some 9–15 months following the conclusion of the intervention. During the endline survey, investigators visited each household containing an unmarried girl aged 13–17 enumerated at the time of the baseline household enumeration exercise. Investigators used addresses collected at the time of baseline enumeration as well as tracking records in order to contact girls identified as eligible at the time of baseline survey. Only adolescent girls who had been listed in the baseline enumeration exercise (irrespective of whether or not they had been interviewed at baseline) were eligible for interview in the endline

survey, that is, adolescents whose families may have migrated into the village after the baseline survey had been completed were not eligible for interview. All efforts were made to interview girls enumerated at the time of the baseline survey irrespective of whether they were living in project sites or, where possible, had been tracked to another village, town or city. The endline survey, conducted between late August and early October 2008, covered girls now aged 15–19.

In order to document changes in girls' lives in greater depth, in-depth interviews were carried out with 62 adolescent girls about 4–10 months following the completion of the intervention (January–February 2008). Respondents were from both the intervention and control sites, and in the intervention site included both participants and non-participants of the intervention programme.

The effectiveness of the intervention programme was evaluated in two ways. First, using matched data from the baseline and endline surveys, comparisons of several indicators were made for respondents from both the intervention and control sites. In order to measure the effect of the programme, the difference-in-differences (DiD) method (Ashenfelter, 1978; Ashenfelter and Card, 1985) was used to compare changes that took place in the intervention site following programme implementation with changes that took place in the control site. The DiD method is a statistical method that contrasts the difference in average outcome in the intervention group before and after exposure to the intervention, with the difference in average outcome in the control group at baseline and endline. Second, in order to understand the acceptability and quality of the intervention programme, we explored girls' reports of their experiences of the programme through qualitative and quantitative assessments at the endline.

Study instruments

Two questionnaires were developed for the study: a household questionnaire administered in all households in the intervention and control sites, and an individual adolescent questionnaire administered to all girls aged 13–17 residing in these households. The development of questionnaires drew, to a considerable extent, on questionnaires prepared for unmarried young women used in the *Youth in India: Situation and Needs Study* (IIPS and Population Council, 2008).

The household questionnaire, which was administered only in the baseline survey, included a complete listing of all household members, their age, marital status, educational attainment and work status. It also included, for all married women aged up to 29, information about their age at marriage, and date of first birth/delivery, if any.

The individual questionnaire included questions regarding the background characteristics of respondents—age, religion, caste, education, media exposure, vocational training, and work status—as well as their household amenities and living conditions. Information was also sought from girls about their age at menarche; interaction, communication and connectedness with parents; friendships; agency and gender role attitudes; as well as their awareness of sexual and reproductive matters; and their awareness of and participation in programmes available to the young people. Data were also collected about their preferred age at marriage and the extent to which they expected to be involved in decisions related to their marriage.

The endline questionnaire was identical to that posed at baseline, with three additions. First, all girls were asked whether they had married in the period between the baseline and endline surveys. Second, girls

who had married during this period were asked questions about their age at marriage, involvement in marriage-related decisions and pregnancy history. Finally, all girls who reported having participated in any life skills programme (both our intervention and other programmes) were asked about their experiences, their perceptions about the acceptability and quality of the programme and the ways in which participation in the programme had influenced their lives.

Response rates

A total of 1,374 unmarried adolescent girls aged 13–17 were identified at the time of the baseline survey—1,067 in the 18 villages of the intervention site and 307 in the 9 villages of the control site. Response rates in both sites were comparable—80 percent and 82 percent, respectively (Table 1.2). At the time of the endline survey, efforts were made to contact all the girls who were identified at the baseline, irrespective of whether they had been interviewed at the time of the

baseline survey. Results show that response rates at the time of the endline survey were considerably higher than that reported at the time of the baseline survey—93 percent in the intervention site and 91 percent in the control site.

Reasons for non-response are presented in Table 1.2. Refusal rates were low at the time of the baseline survey (4% of adolescents or their parents from the intervention site and no one from the control site refused permission to conduct the interview) and reached just 1–2 percent at the time of the endline survey. At the time of the baseline survey, a large proportion of eligible girls were unavailable for interview even after 3–4 visits by the field teams: 126 (12%) girls in the intervention site and 47 (15%) in the control site. Improved efforts at the time of the endline survey resulted in negligible numbers of such cases (5 in the intervention site and 2 in the control site). At the time of the endline survey, the leading reason for non-response was our inability to track girls who had moved away from their village of origin:

Table 1.2:
Reasons for non-response and response rates at baseline and endline

	Baseline		Endline	
	Intervention site	Control site	Intervention site	Control site
Unmarried girls aged 13–17 identified	1,067	307	1,067	307
Interviewed	854	251	990*	279*
Reasons for non-response				
Not available at home	126	47	5	2
Respondent refused	21	1	3	1
Parent of respondent refused	21	0	11	6
Dwelling vacant/address invalid	45	8	12	4
Family had moved out	NA	NA	9	1
Respondent died	NA	NA	2	4
Moved out of state/district due to marriage, work or education	NA	NA	35	10
Response rate	80.0	81.8	92.8	90.9

*Note: *All respondents who were enumerated at the time of the baseline survey were eligible for interview in the endline survey; given the higher interview completion rate at the endline survey than the baseline survey, the number of complete interviews in the endline survey exceeded the number of complete interviews in the baseline survey. NA: Not applicable.*

Table 1.3:**Follow-up rates**

	Intervention site	Control site	Total
Number of girls interviewed at baseline	854	251	1,105
Number of girls interviewed at baseline who were also interviewed at endline	810	228	1,038
Follow-up rate	94.8	90.8	93.9

in 10 cases, families had moved away and in 45 cases girls had married, or moved away for work or education, and their contact details could not be accessed or their destinations were too far away (more than 100 km) to enable follow-up. Notably, a total of 6 girls had died in the two years between the baseline and endline surveys.

Moreover, as shown in Table 1.3, of the 1,105 girls who were interviewed in the course of the baseline survey, an impressive 1,038 (94%) were successfully re-interviewed in the endline survey: 95 percent in the intervention site and 91 percent in the control site. The high follow-up rates ensured that the socio-demographic composition of interviewed girls at endline was virtually identical to that of those interviewed in the baseline survey.

Structure of the report

The report is divided into seven chapters. In this chapter, we have described the situation of rural adolescents in Uttar Pradesh and in the district of Lucknow, policies for adolescents in Uttar Pradesh in particular and in the country in general, life skills education programmes being implemented by the government and NGOs, as well as a description of the intervention and the design of its evaluation. The second chapter presents a profile of the lives of adolescent girls at the time of the baseline survey in both the intervention and control sites, including the

socio-demographic characteristics of adolescents, as well as those aspects of girls' lives that the intervention aimed to address, that is, their agency, gender role attitudes, awareness of sexual and reproductive health matters, awareness and participation in programmes addressing youth needs, parent-daughter communication, and marriage-related awareness, preferences and experiences. Chapter 3 briefly describes the objectives and design of the intervention, the key components of the intervention and the extent of girls' participation in intervention activities, and the challenges faced in implementing the programme. Chapter 4 discusses, using both qualitative and quantitative data, adolescent girls' experiences and assessment of the intervention programme, particularly their views about group membership, and the quality and acceptability of the life skills and livelihood skills training components. Chapter 5 presents findings with regard to the effects of the intervention on four key dimensions of girls' lives, namely, their agency, gender role attitudes, awareness of sexual and reproductive health matters, and communication with parents. Chapter 6 describes the extent to which the intervention succeeded in influencing marriage-related preferences, and delaying marriage and first pregnancy. The final chapter (Chapter 7) summarises the main findings of the study, and highlights lessons learnt for future programme implementation.

Profile of adolescents' lives

Drawing on data from the baseline survey, this chapter presents a profile of the lives of adolescent girls in selected villages in Malihabad and Maal, the intervention and control site, respectively. We first describe the socio-demographic characteristics of adolescents and follow this with a discussion of baseline indicators on each of the six areas of girls' lives that the intervention aimed to address, namely, their agency, gender role attitudes, awareness of sexual and reproductive health matters, awareness of and participation in programmes addressing youth needs, the extent of parent-daughter communication, and marriage-related preferences and experiences.

Socio-demographic profile of respondents

Table 2.1 describes the household characteristics of adolescent girls in the intervention and control sites.

Findings suggest that an overwhelming majority (90%) of respondents were Hindu and about half (52%) belonged to scheduled castes. While the caste-wise distribution was virtually identical across the two sites, Hindus comprised a considerably larger proportion of households in the control site than in the intervention site (97% and 88%, respectively).

Economic status data suggest that the majority of girls in both the intervention and control sites came from resource-poor households; only one in seven respondents (14%) lived in a *pucca* house (with a roof, walls and floor made of permanent materials); one in five had access to a flush toilet and half lived in households with electricity. Household economic status was measured using a wealth index, composed of household asset data on ownership of selected durable goods, including means of transportation as well as access to a number of amenities. The wealth

Table 2.1:

Selected household characteristics of respondents (aged 13–17) and married women (aged 15–19), baseline survey

Characteristics (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Religion and caste			
Hindu*	87.7	96.8	89.8
Scheduled caste	51.5	53.0	51.9
Household economic status			
Has electricity	47.9	55.0	49.5
Has access to a flush toilet	20.0	21.5	20.4
Lives in a <i>pucca</i> house	14.6	13.2	14.3
Mean household wealth index (range 0–52)	15.4	15.8	15.5
Age at marriage ^{1, 2, *}			
Proportion aged 15–19 who were married	18.7	25.4	20.3

Notes: *Differences are statistically significant at the 5% level or better.

¹ Because the age distribution of the adolescent female population differed in the intervention and control sites, with control site recording a somewhat larger proportion of women aged 18–19, standardised percentages are presented that adjust for differences in age structure using the age distribution of the control site as the standard. The unadjusted proportion of women aged 15–19 who were married in intervention site was 16.7.

² Includes 934 in the intervention site, 279 in the control site.

index was constructed by allocating scores to a household's reported assets or amenities (for details of the scores, see Appendix 1). Index scores, so constructed, ranged from 0 to 52. The household wealth index reconfirms a situation of considerable poverty: the average household scored only 15.5 on the wealth index (of a maximum possible score of 52). Scores on the wealth index were, moreover, almost identical in both the intervention and control sites (mean index values were 15.4 and 15.8, respectively).

Marital status indicators suggest that as many as one in five young women aged 15–19 residing in the study villages were already married (data drawn from the household roster). Differences between sites were notable, with significantly larger percentages of young women aged 15–19 residing in the control site married than in the intervention site (25.4% versus 18.7%), even though there was no discernable difference in the mean age at marriage of these girls (16.5 versus 16.3, not shown in tabular form).

Table 2.2 presents a socio-demographic profile of adolescent girls interviewed in the intervention and control sites at the time of the baseline survey. Age profiles suggest that almost half (47%) were below age 15 while only 9–11 percent were aged 17. The median age of girls was 15 years in both the intervention and control sites, reflecting highly comparable samples in both areas.

Findings on educational attainment suggest that more than nine in 10 girls (92%) had ever attended school, that girls had attained an average of six years of schooling and that about three in five girls (61%) were enrolled in school at the time of the baseline survey. It would appear, however, that girls in the control site were significantly more likely than those in the intervention site to have been in school at the time of interview (69% and 59%, respectively).

In both the intervention and control sites, the majority of girls were economically active—57 percent had been engaged in any work (paid or unpaid) in the 12 months prior to interview and 51 percent had been engaged in paid work. Among those who were not in school at the time of the baseline survey, about two in three girls were engaged in any paid or unpaid work. The majority of working girls were engaged in the agricultural sector, and a considerable minority was engaged in traditional embroidery work (data not shown in tabular form).

A profile of girls' current activity suggests that just under one-third (30%) were exclusively in school at the time of interview and one-quarter were exclusively engaged in economic activity; another one-third (32%) combined schooling with work. Some 13 percent of adolescent girls were neither in school nor working at the time of interview, a finding observed in other settings as well (see, for example, Sathar et al., 2003; SEWA et al., 2006). These results are uniformly observed among girls in both the intervention and control sites.

Exposure to mass media was assessed through four indicators: whether or not girls watched television or attended film shows sometimes or often; and whether girls with five or more years of education read newspapers, magazines or books, or accessed the internet sometimes or often. Findings confirm considerable exposure to the media: two-thirds were regularly exposed to television, three-fifths attended film shows at least sometimes, and almost four in five girls educated up to Class 5 read newspapers, magazines or books at least sometimes. Internet exposure was however rare, with just 2 percent reporting that they sometimes accessed the internet.

Findings also confirm that large numbers of parents were illiterate: as many as 81 percent of all

Table 2.2:

Selected socio-demographic characteristics of adolescent girls, baseline survey

Characteristics (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Age			
≤ 13	25.1	18.7	23.6
14	22.0	26.3	23.0
15	23.5	26.3	24.2
16	18.3	19.5	18.6
17	11.1	9.2	10.7
Mean age	14.7	14.7	14.7
Schooling status			
Ever attended school	91.1	93.6	91.7
Mean years of schooling ^a	6.0	6.3	6.0
Currently in school ^a	59.1	68.9	61.4
Economic activity (last 12 months)			
Engaged in any paid or unpaid job	57.1	57.4	57.2
Engaged in any paid job	51.4	47.8	50.6
Among respondents not in school, % engaged in any paid or unpaid job ^a	64.2	71.8	65.6
Current activity status			
Not in school, not working	14.6	8.8	13.3
Not in school, working	26.2	22.3	25.3
In school, not working	28.2	33.9	29.5
In school, working	30.9	35.1	31.9
Mass media exposure^b			
Television ^a	69.3	60.6	67.3
Movie (in theatre)	62.1	58.2	61.2
Newspaper/magazine/books ^c	78.3	78.1	78.3
Internet ^c	2.3	1.3	2.1
Parents' literacy levels			
At least one parent illiterate	81.6	78.1	80.8
Parents' survival status			
Both parents alive	89.3	88.5	89.1
Residence			
Co-resides with both parents	88.6	86.9	88.2

Notes: ^aDifferences are statistically significant at the 5% level or better.

^a Includes girls who had ever attended school but were not attending school at the time of the baseline survey; i.e., 273 girls in the intervention site and 62 girls in the control site.

^b Sometimes or often.

^c Includes girls with five or more years of education; i.e., 696 in the intervention site and 224 in the control site.

adolescents reported that at least one parent was illiterate. Nine in 10 girls reported that both parents were living, and an equal percentage reported that they were co-residing with both parents at the time of the baseline survey.

In short, a comparison of the socio-demographic characteristics of girls and their households in the intervention and control sites, as described in this section, shows that, by and large, their characteristics were almost identical for all major indicators.

Agency

As indicated earlier, available studies, while sparse, suggest that in traditional settings such as India, adolescent girls have limited agency in terms of decision-making on matters affecting their own lives, sense of self-efficacy and access to resources. At the same time, with the onset of puberty, restrictions are placed on girls' mobility, limiting their freedom to visit even safe familiar spaces (see, for example, Alexander et al., 2006a; 2006b; Jejeebhoy et al., 2006; Ram et al., 2006; Santhya et al., 2008; Sebastian, Grant and Mensch, 2005). Our findings reiterate the limited agency of girls in the project sites.

Several dimensions of agency were explored in the baseline survey and changes in these dimensions were assessed at endline. These include adolescent girls' decision-making ability, freedom of movement, sense of self-efficacy and access to economic resources. In order to assess decision-making, freedom of movement and sense of self-efficacy, several questions were posed to girls; from these, summary measures were created by way of indexes constructed as follows. A principal components factor analysis was used with variables representing each of these dimensions of agency to identify items that grouped together to explain a particular dimension of agency. We opted not to use the factor scores themselves as our summary indicator. Instead, we used the factors to guide us in identifying the items comprising each dimension of agency, and created simplified measures for ease of interpretation, that is, additive indexes based on responses to each selected item (each taking values 0 and 1). Below are presented only those items of each dimension of agency that were thus included.

Decision-making

In order to assess adolescent girls' involvement in decision-making, the baseline survey asked

respondents about their involvement in decisions on several matters relating to their lives: choice of friends, spending their own money, buying clothes for themselves, how much education to pursue and whether or not to work outside the home. Girls who reported that they were involved in decision-making on any issue were probed about whether they made the decision entirely on their own or jointly with other family members.

Findings, presented in Table 2.3, reveal that although about nine in 10 (88%) adolescent girls chose their own friends, many fewer girls took independent decisions on spending their own money or buying clothes for themselves (57% and 28%, respectively). Even fewer made decisions on their own about education or work (15% and 8%, respectively). In order to summarise girls' decision-making ability, a decision-making index was created that summed the number of issues on which they reported making independent decisions. This additive index ranges from 0, implying that the respondent did not make any decisions independently, to 5, suggesting independent decision-making on all five matters. On average, adolescents showed limited decision-making ability: in only two out of five matters did they report making decisions independently. No differences were apparent between the intervention and control sites in girls' decision-making ability.

Mobility

Mobility was measured by a number of questions on whether the respondent was permitted to visit places within and outside the village unescorted. Places within the village included a shop or market, the home of a friend or relative, and a community programme. Places outside the village included the home of a relative or friend, a movie theatre, video parlour or other places of entertainment and a community

programme. Finally, all respondents were asked if they could go to a health facility unescorted, if required.

Findings presented in Table 2.3 confirm adolescent girls' limited mobility of even within their village: only 53 percent were permitted to go unescorted to a shop or market within the village, 42 percent to visit a friend or relative within the village and just 13 percent to attend a community organised

programme. Freedom to visit places outside the village unescorted was even more restricted than mobility within the village. Only between 2–7 percent of girls reported freedom to visit any of the three sites unescorted. Finally, just 8% reported freedom to visit a health facility unescorted.

An index of mobility reflecting adolescent girls' freedom of movement was created by adding the

Table 2.3:
Adolescent girls' agency, baseline survey

Indicators of agency	Intervention site (N=854)	Control site (N=251)	Total (N= 1,105)
Decision-making (%)			
Took independent decisions on:			
Choice of friends	87.7	90.8	88.4
Spending own money	55.2	61.0	56.5
Buying clothes for oneself	29.6	22.7	28.1
How much education to pursue	15.2	14.3	15.0
Whether to work outside the home	8.7	6.4	8.1
Index of decision-making (range 0–5, Cronbach's alpha 0.52)	2.0	2.0	2.0
Mobility (%)			
Allowed to go unescorted to:			
Shop/market within village	53.3	51.0	52.8
Friend's/relative's home within village	41.5	44.6	42.2
Attend community programme within village	12.5	15.1	13.1
Friend's/relative's home outside village	3.8	3.2	3.6
Nearby village for entertainment	6.9	6.0	6.7
Attend community programme outside village	1.6	1.2	1.5
Health facility	8.1	7.6	8.0
Index of mobility (range 0–7, Cronbach's alpha 0.63)	1.3	1.3	1.3
Self-efficacy (%)			
Never found it difficult to:			
Confront a person who has said or done something wrong to her*	34.1	38.3	35.0
Tell parents if she did not like the spouse they had selected*	29.6	16.7	26.7
Tell parents she opposed the proposed timing of her marriage if she thought it was too soon*	32.0	24.7	30.3
Index of sense of self-efficacy (range 0–3, Cronbach's alpha 0.61)*	0.98	0.80	0.92
Access to economic resources (%)			
Had some savings*	47.1	59.4	49.9
Had own/joint account in a bank or post office	9.5	13.6	10.4

Note: *Differences are statistically significant at the 5% level or better.

number of places (out of seven) they were allowed to visit unescorted. An index value of 0 implies that the girl was not allowed to visit any of the seven places unescorted, while a maximum value of 7 suggests that she was permitted to visit all of the seven places unescorted. The average number of places to which girls in both the intervention and control sites were allowed to visit unescorted was only 1.3 (see Table 2.3), confirming the highly restricted mobility of girls in these sites.

Sense of self-efficacy

In order to measure girls' sense of self-efficacy, a number of questions were asked of respondents that related to their perceived sense of self-efficacy. Girls were asked whether they experienced difficulty in confronting a person who had said or done something wrong to them, and whether they would have difficulty telling their parents if they opposed the timing of their marriage if they considered it too soon, on the one hand, and opposed their parents' choice of spouse, on the other.

Findings, presented in Table 2.3, suggest that girls' sense of self-efficacy was limited: indeed, only between 27–35 percent of girls revealed a sense of self-efficacy on any of the three situations described. An index summarising girls' sense of self-efficacy was created by summing the number of these three situations in which girls perceived that they would always display self-efficacy. The index thus created ranges from 0, implying that they would be unable to express themselves on any of the three issues to 3, suggesting that they would be able to do so on all three matters. The index suggests similarly, a limited sense of self-efficacy: on average, girls displayed a sense of self-efficacy in less than one of the three situations presented, irrespective of site. While girls from neither the intervention nor control site recorded

a score of more than 1, differences between girls from the intervention and control sites were significant on each of the three items. Indeed, the index of sense of self-efficacy suggests that girls from the control site displayed a significantly lower sense of self-efficacy than those from the intervention site.

Access to economic resources

In order to assess the extent to which girls have access to economic resources, the baseline survey inquired about whether respondents had any money saved from wages and/or from gifts or pocket money, and whether they owned a bank or post office account. Only half of all girls reported that they had savings (50%) and just 10 percent reported that they held a bank account, usually jointly with a parent or another adult (Table 2.3). The percentage of girls reporting savings was significantly higher in the control site as compared to the intervention site (59% and 47%, respectively).

Gender role attitudes

Several questions were posed that probed girls' attitudes to gender roles at baseline, and assessed changes in these attitudes at endline. As in the case of dimensions of agency, in order to identify items that grouped together, a principal components factor analysis was performed using variables representing each gender role attitude. The four items that grouped together were respondents' perceptions about whether educating boys is more important than educating girls, whether girls should participate in decisions about their own marriage, whether girls are as good as boys in studies, and whether boys should be expected to do as much housework as girls.

Findings, presented in Table 2.4, suggest a mixed scenario. Large proportions of girls—about nine in 10—reported egalitarian attitudes on two questions—

whether educating boys is more important than educating girls, and whether girls are as good as boys in studies. Questions that were less likely to elicit egalitarian responses included whether girls should be allowed to decide about their own marriage and whether boys should do as much domestic work as girls: over half (55–58%) expressed egalitarian attitudes on these two items.

As in the case of indexes representing agency, an index of gender role attitudes was constructed by summing the number of statements (of a maximum of four) for which girls expressed egalitarian attitudes. This index takes values between 0 and 4; 0 if girls did not express egalitarian attitudes regarding any of the four statements and 4 if they expressed such attitudes in all four statements. The average number of statements in which adolescents expressed gender egalitarian attitudes was 2.9, indicating that attitudes were generally egalitarian. Site-wise differences, while mild, were significant: the attitudes of girls from the control site were more egalitarian as compared to those of girls from the intervention site (3.1 and 2.9, respectively).

Girls' gender role attitudes were also assessed by asking their opinion about the suitability of various occupations for men and women. A total of 16 occupations/professions were listed, namely, farming, vegetable vending, engineering, auto mechanics, shop-keeping, scientist, cooking, typing, bicycle repair, accountancy, tailoring, construction work, food-stall vending, nursing, doctor and teaching. Girls were asked to indicate whether the occupation was suitable for men, women or both. Findings suggest that only 9 percent girls perceived that all 16 occupations were suitable to both men and women alike, and there were no discernable differences between the intervention and the control sites (Table 2.4).

Awareness of sexual and reproductive health matters

Our baseline survey sought to explore girls' awareness—and in-depth awareness—of a wide range of issues relating to sex, pregnancy, contraception and sexually transmitted infections (STIs), including HIV/AIDS, as well as of the laws governing age at marriage.

Table 2.4:
Adolescent girls' gender role attitudes, baseline survey

Perceptions of gender roles	Intervention site (N=854)	Control site (N=251)	Total (N= 1,105)
Respondent perceived that (%):			
Educating boys is not more important than educating girls*	93.2	87.1	88.5
Girls should be allowed to decide when to marry	54.0	59.4	55.2
Girls are usually as good as boys in studies	91.9	93.6	92.3
Boys should do as much domestic work as girls	56.8	62.2	58.0
Index of gender role attitudes (range 0–4, Cronbach's alpha 0.38) *	2.9	3.1	2.9
Respondent perceived that selected occupations could be taken up by men and women alike ¹ (%)	8.1	11.2	8.8

Notes: *Differences are statistically significant at the 5% level or better.

¹ Includes the following 16 occupations/professions: farming, vegetable vending, engineering, auto mechanics, shop-keeping, scientist, cooking, typing, bicycle repair, accountancy, tailoring, construction work, food-stall vending, nursing, doctor and teaching.

In order to measure girls' awareness of sex and pregnancy, four statements were provided and girls were asked whether these were correct: a woman can get pregnant at first sex; a woman is most likely to get pregnant if she has sex half-way between her periods; a woman has to bleed at first intercourse; and a woman can get pregnant after kissing or hugging. Findings, presented in Table 2.5, show that few girls were aware about these matters. Indeed, almost half were either unsure (37%) about whether pregnancy could result from kissing or hugging, or believed that this was possible (10%). Over four-fifths (84%) were unaware or unsure that a woman can become pregnant at first sex. A summary measure of awareness of sex and pregnancy was created by summing the number of these four issues about which girls were correctly aware. Results show that, on

average, girls were correctly aware of less than one issue, confirming their extremely low level of awareness about sex and pregnancy. Site-specific differences suggest that on balance, adolescents from the control site were significantly more likely to be aware of these matters than those from the intervention site.

Awareness of contraception was similarly limited. Indeed, just three in five girls were aware of at least one method of contraception, even after prompting, as seen in Table 2.6. Even fewer were aware of methods most appropriate for youth, that is, condoms, oral pills and emergency contraception. Correct specific knowledge of these methods was even more limited: for example, just 17 percent knew that oral pills must be taken daily (or weekly) and just 11 percent knew that one condom can be used for just

Table 2.5:

Adolescent girls' awareness of sex- and pregnancy-related matters, baseline survey

Awareness of sex and pregnancy (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
A woman can get pregnant at first sex*			
Agree	13.9	18.3	14.9
Disagree	39.0	43.4	40.0
Don't know/not sure	45.8	38.3	44.1
A woman is most likely to get pregnant if she has sex half-way between her periods*			
Agree	10.4	13.9	32.0
Disagree	36.8	42.2	17.3
Don't know/not sure	51.5	43.8	49.8
A woman has to bleed at first intercourse*			
Agree	42.9	49.8	44.4
Disagree	3.2	7.2	4.1
Don't know/not sure	52.7	43.0	50.5
A woman can get pregnant after kissing/hugging			
Agree	10.4	8.4	10.0
Disagree	50.6	58.2	52.3
Don't know/not sure	37.7	33.5	36.7
Average number of issues respondent had correct knowledge of (range 0–4)*	0.8	1.0	0.8

Note: *Differences are statistically significant at the 5% level or better.

Table 2.6:

Adolescent girls' awareness of contraceptive methods, baseline survey

Awareness of contraceptive methods (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Aware of:			
At least one method of contraception*	54.6	63.4	56.6
Oral pills	41.0	46.6	42.3
Emergency contraceptive pills	1.2	1.6	1.3
Condoms	35.0	39.4	36.0
Had correct specific knowledge of:¹			
Oral pills	17.1	18.3	17.4
Emergency contraceptive pills	0.2	0.4	0.3
Condoms	10.9	11.6	11.0
Any of the above methods	21.8	23.9	22.3

Notes: *Differences are statistically significant at the 5% level or better.

¹ Correct specific knowledge was assessed for oral pills, condoms and emergency contraceptive pills. The following questions were asked (correct answers in brackets)—oral pills: how often should a woman take pills? (daily/weekly); condoms: for how many acts of sexual intercourse can one condom be used? (one); emergency contraceptive pills: how soon after sexual intercourse should these pills be taken? (within 72 hours).

one sexual act. Hardly anyone knew that an emergency contraceptive pill must be taken within 72 hours of unprotected sexual intercourse. Although a significantly larger percentage of girls from the control site than from intervention site were aware of a method of contraception (63% versus 55%), differences in correct specific knowledge of contraception were negligible.

Awareness of STIs, including HIV/AIDS, was similarly limited (Table 2.7). For example, just 54 percent had heard of HIV, just 17 percent reported comprehensive awareness of HIV/AIDS (that is, they were aware of the protective nature of condom use and single partner relations, and rejected such misconceptions about HIV transmission as HIV can be transmitted through mosquito bites, sharing food or hugging, or that one can tell by looking at a person whether he or she has HIV). Moreover, a negligible 5 percent reported awareness of STIs other than HIV. Girls from the intervention and control sites were, for the most part, equally poorly informed about these issues; however, girls from the control site were

slightly but significantly more likely than those from the intervention site to report awareness of STIs other than HIV.

In short, awareness of sexual and reproductive matters was extremely limited—a finding not unexpected, given that parents rarely discussed these matters with their daughters, and that just 10 percent of girls reported receiving family life or sex education in the school setting. Girls, on average, were aware of less than one issue (out of four) with regard to sex and pregnancy-related matters, less than one-quarter had in-depth knowledge about contraceptive methods appropriate for the young, just one-quarter had comprehensive knowledge of HIV/AIDS and just 5 percent had heard of an STI other than HIV.

Awareness of and participation in programmes addressing youth needs

The baseline survey inquired about girls' awareness of programmes addressing youth needs that had been organised in their village in the three years preceding the interview, and whether they had participated in

Table 2.7:

Adolescent girls' awareness of STIs and HIV/AIDS, baseline survey

Awareness of STIs and HIV/AIDS (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Heard about HIV/AIDS	53.8	56.6	54.4
Among those who had heard about HIV/AIDS, % who reported that:			
One can reduce the chance of getting HIV by having just one partner	61.9	70.4	63.9
One cannot get HIV from mosquito bites	57.7	52.1	56.4
One can reduce the chance of getting HIV by using a condom for every sexual act	49.9	49.3	49.8
One cannot get HIV by sharing food with a person who has HIV	81.5	75.4	80.0
One cannot get HIV by hugging a person who has HIV	83.2	81.7	82.9
One cannot tell by looking at a person whether s/he has HIV	86.7	81.0	85.4
Had comprehensive knowledge about HIV/AIDS ¹	17.0	17.1	17.0
Heard about STIs other than HIV*	1.4	4.5	5.1

Notes: *Differences are statistically significant at 5% level or better.

¹ Rejected common misconceptions about HIV, and was aware of modes of HIV transmission and safe sex.

any of these programmes. Findings are presented in Table 2.8 and reiterate that awareness of programmes was extremely limited. Just 7 percent reported awareness of one or more programmes, and even fewer (3%) reported awareness of a vocational or life skills education programme in particular. Participation was likewise negligible: just 4 percent had

ever participated in such a programme and only 2 percent had participated in a vocational training or life skills education programme. However, interest in attending such programmes, notably vocational training programmes, was almost universal (97%). No discernable differences were observed between girls from the intervention and control sites.

Table 2.8:

Adolescent girls' awareness of and participation in programmes addressing youth needs, baseline survey

Awareness of programmes (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Aware of any community-level programme organised in the village in last three years	6.9	7.6	7.1
Aware of any vocational or life skills education programme organised in the village in last three years	3.0	3.2	3.1
Participated in any community-level programme organised in the village in last three years	3.6	5.2	4.0
Participated in any vocational training or life skills education programme organised in the village in last three years	1.3	2.4	1.5
Would like to attend a vocational training programme	96.7	99.2	97.3

Parent-daughter communication

The survey inquired about whether girls had communicated with their mother and father, respectively, on a range of topics including school performance, friendships, romantic relationships, growing up issues, being teased or bullied, physical maturation, sexual and reproductive processes and contraception. In order to identify issues that grouped together we performed a principal components factor analysis using variables representing different issues of parent-daughter communication. Two distinct factors were identified—one on general issues represented by school performance and friendships, and the other on sexual and reproductive health matters represented by four issues: growing up, adolescent body changes, reproductive processes and contraception. Responses relating to these items were summed to construct two indexes of parent-daughter communication.

Findings, presented in Table 2.9, reveal that irrespective of topic, girls' communication with at least one parent was far from universal in both the sites. In general, sensitive topics—such as reproduction and contraception—were rarely discussed with either parent (2–3%). Mother-daughter communication was far more prevalent than father-daughter communication on all matters. Findings, as evident from the indexes, also suggest that communication on sexual and reproductive matters was far less likely to be reported than communication on more general topics. Again, findings suggest, by and large, similar parent-daughter communication patterns in both sites.

Marriage process

Age at marriage remains low in Uttar Pradesh. While there are indications that age at marriage has been increasing, large proportions of girls in the state continue to marry in adolescence and even below age

15. As of 2006–07, as many as 14 percent of young women aged 15–19 had married before the age of 15 in Uttar Pradesh, compared to 20 percent in 1998–99 (IIPS and Macro International, 2007; IIPS and ORC Macro, 2000).

The baseline survey explored marriage processes in two ways. First, through the household questionnaire, it recorded the age at marriage of all married women aged up to 29 residing in the household, irrespective of whether she belonged to a household containing an adolescent girl or not. Second, the individual questionnaire explored girls' awareness of the minimum legal age at marriage for males and females, their preferred age at marriage, their preference for a love versus an arranged marriage, the extent to which marriage-related discussions or negotiations had been initiated and if so, girls' involvement in these discussions.

Table 2.10 presents findings drawn from the household listing obtained in the baseline survey on age at marriage of women aged 15–29. Findings suggest that marriage before age 15 was far less prevalent in both the intervention and control sites than in the state as a whole. Of those aged 15–19, only about 2 percent were married before age 15, compared to the state average of 14 percent (IIPS and Macro International, 2007). However, a large number of young women did indeed marry in adolescence (before age 20), and a considerable number before the minimum legal age at marriage of females (18 years). For example, of those aged 20–24, as many as 35 percent of young women were married before age 18, and 62 percent before age 20. Among women aged 25–29, in comparison, 46 percent were married before age 18 and 68 percent before age 20. While marriage age distributions were fairly similar among women in the intervention and control sites, some significant

Table 2.9:

Adolescent girls' communication with parents on selected matters, baseline survey

Topics (%)	Discussed with:		
	Either parent	Mother ¹	Father ²
Intervention site (N=854)			
General matters			
School performance	78.7	70.8	66.5
Friendships	67.3	65.0	34.5
Index of communication on general matters (range 0–2, Cronbach's alpha 0.64)	1.46	1.36	1.01
Sexual and reproductive health matters			
Growing up issues	30.5	30.0	4.2
Adolescent body changes	28.1	28.1	0.1
Reproductive processes	2.5	2.5	0.0
Contraception	2.1	2.0	0.1
Index of communication on sexual and reproductive health matters (range 0–4, Cronbach's alpha 0.80)	0.63	0.63	0.04
Control site (N=251)			
General matters			
School performance	81.3	74.5	68.1
Friendships	69.3	66.1	45.4*
Index of communication on general matters (range 0–2, Cronbach's alpha 0.64)	1.51	1.41	1.14
Sexual and reproductive health matters			
Growing up issues	45.4	45.0	4.4
Adolescent body changes	33.5	33.5	0.0
Reproductive processes	1.6	1.6	0.0
Contraception	1.2	1.2	0.0
Index of communication on sexual and reproductive health matters (range 0–4, Cronbach's alpha 0.80)	0.82	0.81	0.04
Total (N=1,105)			
General matters			
School performance	79.3	71.7	66.9
Friendships	67.8	65.3	37.0
Index of communication on general matters (range 0–2, Cronbach's alpha 0.64)	1.47	1.37	1.14
Sexual and reproductive health matters			
Growing up issues	33.9	33.4	4.3
Adolescent body changes	29.3	29.3	0.1
Reproductive processes	2.3	2.3	0.0
Contraception	1.9	1.8	0.1
Index of communication on sexual and reproductive health matters (range 0–4, Cronbach's alpha 0.80)	0.67	0.67	0.04

Notes: *Differences between the intervention and control sites are statistically significant at the 5% level or better.

¹ Excludes girls whose mother was not alive at the time of interview.

² Excludes girls whose father was not alive at the time of interview.

Table 2.10:

Proportion of young women aged 15–29 married by specific ages, according to current age, baseline survey

Age at marriage (%)	Intervention site	Control site	Total
Among respondents currently aged 15–19, %			
Married before age 15	1.6	2.2	1.7
N	957	279	1,236
Among respondents currently aged 20–24, % married before:			
Age 15	4.6	3.9	4.4
Age 18*	32.6	41.7	35.0
Age 20*	59.7	69.9	62.4
N	715	259	974
Among respondents currently aged 25–29, % married before:			
Age 15*	10.8	4.4	9.2
Age 18	45.3	47.4	45.8
Age 20	67.0	70.6	67.9
N	684	228	912

Notes: Findings presented in this table have been drawn from information collected for women aged 15–29 in the household listing in the baseline survey.

*Differences are statistically significant at the 5% level or better.

differences were observed: for example, a larger proportion of women aged 20–24 in the control site were married before ages 18 and 20 (42% and 70%, respectively) as compared to their counterparts in the intervention site (33% and 60%, respectively).

Adolescent girls' awareness, preferences and experiences with regard to marriage are reported in Table 2.11. Awareness of the minimum legal age at marriage was limited, with just two in five and two in three correctly aware of the exact minimum age at marriage for males and females, respectively. More adolescent girls from the control site were correctly aware of the legal minimum age at marriage for females than their counterparts from the intervention site (77% and 66%, respectively). Despite limited awareness, few girls (3%) wished to marry before the legal minimum age. An overwhelming majority (93%) also reported preferring an arranged marriage to a love marriage. Indeed, there was a considerable gap between the ages at which young women in the intervention and control sites were married and girls' preferred age at marriage: half of all girls preferred to

marry at age 20 or older, and the mean preferred age at marriage was 20. Differences between control and intervention sites were significant: the mean preferred age at marriage cited by girls from the control site was three years older than that cited by those from the intervention site.

Notwithstanding preferences, almost one-quarter of girls reported that marriage-related discussions had already been initiated by their parents or senior family members. Indeed, girls were aged just 14, on average, when discussions were initiated and 4 percent were already engaged to be married. Moreover, only 11 percent of girls for whom marriage-related discussions had been initiated reported that their parents had ever sought their opinion on the subject. Differences between girls from the control and intervention sites were negligible.

In short, while few girls wished to marry in adolescence, marriage-related discussions had been initiated for almost one in four girls, and one in 20 girls were already engaged. Girls had a limited voice in marriage-related matters—the large majority

Table 2.11:

Adolescent girls' awareness of the minimum legal age at marriage and marriage-related preferences and experiences, baseline survey

Marriage-related awareness, preferences and experiences (%)	Intervention site (N=854)	Control site (N=251)	Total (N=1,105)
Aware of the minimum legal age at marriage			
For males (age 21)	37.7	41.4	38.6
For females (age 18)*	66.2	76.5	68.5
Marriage-related preferences			
Age at which respondent wished to marry:			
Before 18	3.0	2.8	3.0
At 18	29.2	32.3	29.9
At 19	11.9	9.6	11.4
At 20	30.0	24.7	28.8
At 21 or above	20.1	24.7	21.2
Can't say/no answer	0.8	4.4	1.6
Preferred not to marry	4.2	1.6	3.6
Mean preferred age at marriage (years)*	19.5	22.8	20.2
Preferred to have a love marriage than an arranged marriage	6.4	7.6	6.7
Marriage-related experiences			
Parents/elders had initiated discussions on marriage	20.8	27.9	22.4
Among those whose parents had initiated discussions on marriage:			
Mean age when marriage discussions were initiated (years)	14.4	14.2	14.4
Parents had sought respondents' opinion on their marriage (%)	10.8	11.6	11.0
Engaged (%)	4.3	4.0	4.3

Note: *Differences are statistically significant at the 5% level or better.

proposed to undergo an arranged marriage and among those for whom marriage-related discussions had been initiated, these discussions rarely involved the girl herself.

Summary

In summary, findings suggest that girls exercised limited agency in both the intervention and control sites—they did not necessarily make decisions even about everyday matters, they lacked freedom of movement and opportunities to interact with their peers and many lacked the skills to communicate their opinions. Girls were also poorly informed about sexual and reproductive health matters and most had a limited role in marriage-related matters.

Findings also confirm that the characteristics of girls and their households were, by and large, identical in the intervention and control sites for most indicators, such as age, educational attainment, economic activity, household economic status and parents' educational attainment. Differences were, however, noted with regard to some indicators. For example, girls in the control site were more likely than those in the intervention site to report school attendance, access to savings and knowledge of contraception, STIs and the minimum legal age at marriage. In contrast, girls in the control site were less likely than those in the intervention site to report exposure to television, and to report self-efficacy. Finally, findings suggest that at the community level, the percentage of girls aged 15–19 who were already married was higher in the control than intervention site.

The intervention

In the background of the paucity of evidence on the effectiveness of life skills education programmes, Prerana and the Population Council undertook this project to implement and test the effectiveness and acceptability of a well-established life skills education model among adolescent girls in rural Lucknow district. While both organisations worked in partnership, Prerana was primarily responsible for programme implementation and the Council for programme evaluation.

This chapter briefly describes the objectives of our intervention, its design, the main components, and the challenges faced in implementing the project. Drawing on data obtained in the endline survey, it also describes girls' enrolment and participation in the intervention.

Objectives

Our intervention design was primarily based on a programme model used by CEDPA, namely the Better Life Options model, that aims to improve the lives of adolescent girls and young women. The Better Life Options programme is a group-based empowerment model, which is implemented through a well-documented programme guide entitled *Choose a Future!* (CEDPA, 2003).

The objectives of our intervention were to:

- provide girls a safe place to meet regularly and develop peer networks;
- build girls' agency—their leadership skills, ability to communicate effectively, problem solving capacity, self-image, ability to set goals and make

plans as well as career planning, a savings orientation, and awareness of legal rights.

- foster egalitarian gender role attitudes among girls;
- inform girls about issues relating to sexual and reproductive health, the advantages of delaying marriage and pregnancy, as well as about their rights, and about environmental issues.
- develop livelihood skills among girls.

Intervention design

At the time it was launched, the intervention served unmarried adolescent girls aged 13–17. Activities were implemented in a phased way across 18 villages of Malihabad block. The intervention was conducted over approximately 6–9 months; for the most part, activities were initiated in August 2006 and were concluded in the last quarter of 2007.

Prior to undertaking the intervention programme, Prerana initiated activities to build community level support and local capacity, which is described below.

Building community acceptance of the programme

Extensive efforts were made to build community acceptance and ownership of the intervention programme, and to build rapport between Prerana staff members, community leaders and girls' parents. Meetings were held with key influential members of the community to solicit their support and to obtain their views on the design and content of the intervention programme.

Meetings were also held with parents to introduce the project to them. While parents were, by and large, supportive of the intervention, particularly of the livelihood skills training component, questions were raised regarding the appropriateness of the content of life skills education programme. Prerna staff used these meetings to address parents' concerns about enrolling their daughters in the intervention, and sensitising them about the importance of life skills education in their daughters' lives.

Building local capacity to implement the intervention

Building local capacity was perceived as an essential component of programme sustainability. Hence Prerana made significant efforts to recruit residents of the intervention site as animators (who would work as group leaders and intervention implementers). Educated and articulate young women from the intervention site, who appeared to be capable of managing large groups of adolescent girls, were thus invited to attend the animator training programme.

Considerable emphasis was paid to pre-intervention training and refresher training. An initial training programme (in July 2006) focused on orienting potential animators and other programme functionaries about the project, and their roles and responsibilities. Animators were then identified and recruited; Prerana trainers worked with these animators to develop work plans for pre-launch activities.

During the ensuing two months, Prerana staff worked with animators to continue efforts to build community rapport. Animators made home visits to inform parents and girls about the project, invited girls to participate and prepared lists of girls interested in participating in the intervention programme.

Animators also identified safe spaces in which to conduct the intervention activities, identified skills in which interested girls wished to be trained, and located appropriate trainers to impart these skills.

Animators then underwent a residential training in the life skills education programme conducted over seven days (in September 2006). The training programme focused on exposing animators to issues related to adolescent girls; building animators' skills in communicating with girls and facilitating group activities; familiarising them with project implementation and management issues; and training them in imparting the *Choose a Future!* curriculum. Recognising the need to enable young women animators to shed their inhibitions, to fully understand the content of the programme and to become confident in imparting the curriculum, this training programme employed a range of participatory methods—group exercises, role-plays, brainstorming, case studies, participant presentations and interactive lectures, for example. Separate sessions were held to clarify animators' expectations and apprehensions related to the training programme.

Refresher training was also conducted periodically. For example, just prior to imparting the sexual and reproductive health component of the curriculum, animators underwent refresher training over four days on the subject and on how to impart the module (in February 2007). The main objective of this training was to ensure that animators were sufficiently equipped to convey correct sexual and reproductive health information to girls, respond to their questions and communicate ideas without embarrassment. Refresher training also focused on such issues as women's rights and enabled animators a platform where they could discuss the challenges they faced.

Finally, the intervention was extensively monitored. Three Prerana supervisors monitored the quality of training by animators, provided supportive feedback to animators and assisted them in resolving problems.

Main components of the intervention programme

The 6–9 month intervention programme, guided by the *Choose a Future!* curriculum, had four major components. First, it was group-based and sought to provide girls learning opportunities as well as a safe place to meet regularly and develop peer networks. Second, its curriculum focused on developing girls' agency and fostering egalitarian gender role attitudes among them. Third, it sought to raise girls' awareness of health matters, particularly of sexual and reproductive health and rights, and environmental and legal issues. Finally, it provided opportunities for girls to develop livelihood skills.

The components of the intervention programme are discussed in the following sections.

Group formation

In each village, a site was identified (often the home of the animator) for intervention activities. These sites were known as programme “centres” and groups met in these centres. In the 18 intervention villages of Malihabad, a total of 23 groups were formed (more than one group was formed in large villages). On average, each group enrolled 15–20 girls in our age group (in addition, a few under- or over-age girls and married girls who insisted on joining the group were not turned away; however, our analysis excludes them).

Groups met almost daily for about two hours at a suitable time—accommodating school-going girls as

well as working girls and girls with housework responsibilities. Group sessions included both elements from the *Choose a Future!* curriculum as well as livelihoods training. Frequently, the centre would remain open for girls to congregate even after the intervention activity for the day was completed, offering girls an opportunity to strengthen peer networks, practise their skills or seek clarifications from animators. Special events were also organised, for example, sports days and celebrations, audiovisual shows and talks on women's rights and safe motherhood.

In order to instil a sense of ownership of the intervention, girls were expected to contribute a nominal sum of Rs 10 per month to participate in the intervention programme.

Pre- and post-test assessments were made at the initiation and completion of the *Choose a Future!* curriculum. These assessments gauged girls' knowledge and attitudes about several issues on which the curriculum focused, and particularly on issues relating to reproductive health and gender role attitudes. At the completion of the training programme, moreover, girls appeared for a theoretical and practical evaluation of the skill they had learned (written or oral). A certificate was presented to all who had successfully completed these courses.

In addition, in order to support girls who had completed the programme, alumnae groups were formed in each village which met 2–3 times a week. Essentially, alumnae groups enabled girls a safe space in which to interact, play games, practise newly-learned skills and spend time outside the home even after the completion of the intervention. In addition, on an ad hoc basis, animators arranged for girls to learn new skills (*mehendi* application, candle-making or paper flower making and so on); some groups even initiated informal savings schemes.

Building agency and fostering egalitarian gender role attitudes

The livelihood skills training component was interspersed with the *Choose a Future!* curriculum. The *Choose a Future!* curriculum comprises a total of 16 modules divided into 69 sessions covering a period of approximately 138 hours. Eleven of these modules—and some 42 sessions—specifically focus on building girls' agency and addressing unequal gender role attitudes. Modules address, for example, goal setting, values identification, communication skills, assertiveness, negotiation and problem solving skills, interpersonal relations both with the family and peers, exploring work opportunities, saving and borrowing money, and legal rights. Almost every module contains, moreover, a gender focus—for example, highlighting female role models, exploring gender roles and relationships, addressing career options for women, understanding women's rights and encouraging girls to participate more fully in making life choices.

Sessions were typically interactive and included role-plays, storytelling, discussion and group work. From time to time, excursions and exposure visits were organised to places of interest to expose girls to the world around them.

Raising awareness, particularly of sexual and reproductive health and rights

Also contained in the *Choose a Future!* curriculum are five modules—and 25 sessions—that aim to raise awareness of health, nutrition and environmental matters. A number of sexual and reproductive health issues are addressed, including puberty, early marriage, sexual relations, STIs and HIV/AIDS, pregnancy and contraception. They also include attention to related reproductive rights and choices. Other health issues include common communicable

diseases, on the one hand, and mental health issues, on the other. Sessions on the environment are intended to orient and sensitise girls about their roles in protecting the environment. Information was imparted through a combination of lectures, discussions, nutrition demonstrations, distribution of information booklets, handouts and so on.

Developing livelihood skills

One of the first activities of each group was to identify a skill in which the girls desired training. Despite efforts made by Prerana staff to encourage groups to opt for non-traditional skills, girls (also supported by influential community members in discussions with animators) opted for training in tailoring. Trainers were then identified and recruited. Each centre was equipped with 3–4 sewing machines to enable girls to have hands-on experience in operating a sewing machine. Typically, trainers visited the groups and held sessions with girls 3–4 times a week; during the remaining days, girls practised what they had been taught and attended the *Choose a Future!* sessions. In addition, as mentioned above, short-term handicrafts training programmes were held in the alumnae group setting and included training in *mehendi* application, candle-making and paper flower making. At the end of the programme, a *mela* or exhibition was organised, in which items produced by girls were displayed and parents and community members invited to attend.

Enrolment and participation in the intervention programme and alumnae groups

Of the 1,067 girls aged 13–17 residing in intervention site (identified in our baseline survey), 37 percent (i.e., 390 girls) were enrolled in the intervention programme (Table 3.1).

At the endline survey, girls were asked whether they had participated regularly in the intervention programme. Of the 390 girls who had enrolled in the intervention programme, a total of 257 girls reported that they had regularly attended the sessions, that is, they had attended half or more of all the sessions conducted.

Girls were also asked about their participation in alumnae groups. Despite the informal nature of these groups, almost three-fifths (57%) of all girls who had enrolled in the intervention programme had joined an alumnae group and, at the time of interview 12–18 months later, 97 percent of those who had joined an alumnae group continued to participate in group activities. An additional 29 girls who had not participated in the intervention programme had joined an alumnae group (and for ethical reasons were included in its activities). The considerable proportion of intervention participants who opted to continue in the alumnae group, whose activities were largely informal, suggests that the Better Life Options programme is indeed a promising model.

We acknowledge the selectivity of those who enrolled in the programme on certain indicators. While the age and work participation status of those who enrolled in the intervention programme were no

different from those who did not, intervention participants were significantly better off than non-participants on other indicators. For example, participants had an average of 6.6 years of education compared to 5.5 among non-participants; while 72 percent of participants were school-going at the time of interview, just 52 percent of non-participants were enrolled in school; standard of living scores, were, correspondingly, 16.7 and 14.9 (see Appendix 2 for a comparison of intervention participants and non-participants).

Challenges faced in implementing intervention activities

We faced a number of challenges when implementing the intervention. The selectivity of programme participants and the programme's inability to attract the most socially and economically vulnerable girls was perhaps one of the biggest challenges; despite the fact that animators made home visits to all girls' homes, they were unable to motivate girls or convince families to permit girls to attend the programme. A second challenge was the difficulty in finding young women who had attained eight or more years of education, displayed leadership qualities and were willing to undertake the role of animators. Prerana made a concerted effort to identify appropriate

Table 3.1:

Extent of adolescent girls' participation in the intervention programme and alumnae groups

Number aged 13–17 residing in intervention site ¹	1,067
Enrolment and attendance in groups:	
Number enrolled in the intervention programme	390
Of those enrolled, number who attended sessions regularly ²	257
Enrolment in alumnae groups:	
Number who joined an alumnae group post- intervention	221
Number who did not participate in the programme but were enrolled in the alumnae group	29

Note: ¹ Baseline data; other data are drawn from the endline survey. All data are from the intervention site.

² Attended half or more of all sessions held.

animators, build their skills and support them at all stages of the intervention, a time-consuming and intensive task. A third challenge was the difficulty, correspondingly, in identifying skilled trainers to impart the livelihood programme; while a trainer was linked to each group, the skills of these trainers were variable. Moreover, fourth, given the conservative social structure prevailing in rural Uttar Pradesh, girls from different castes were reluctant to interact in a common space; animators expended considerable effort in convincing girls and their families to overcome these traditional barriers. A fifth challenge was to encourage regular attendance in the sessions; although animators and supervisors made regular efforts to enable girls to overcome such obstacles as parental disapproval, and housework and other commitments on girls' time, attendance was erratic among one-third of all girls. A sixth challenge was to evoke an interest among girls in acquiring livelihood skills other than handicrafts or tailoring; committed to the participatory focus of the intervention, Prerana

complied with girls' preferences and facilitated training in tailoring.

These challenges underline the message that intervention programmes operate in less than ideal situations, and that programme implementers must be alert to the need for modification to accommodate "real life" conditions.

Summary

In summary, the intervention programme comprised several elements—the establishment of groups, and the implementation of a life skills education curriculum and a livelihood skills building component—implemented over a period of roughly 6–9 months. Several implementation challenges were experienced, ranging from the selectivity of intervention participants to the difficulty in identifying qualified and willing animators and skills trainers, suggesting that programmes may need to be modified to accommodate "real life" conditions.

Girls' experiences of the intervention programme

As discussed earlier, the objectives of our intervention programme were to provide girls a safe and legitimate space to meet and interact with peers outside the home, provide girls opportunities to build peer networks, and to expose them to new ideas and skills. In this chapter, we discuss girls' experiences of becoming members of Prerana-established groups, and their assessment of the life skills curriculum and the livelihoods training programme. Data are drawn from questions posed to girls in the endline survey and in the course of in-depth interviews. We focus here on the responses of 390 girls from the intervention site who had participated in the programme and for whom complete endline interviews were available. Of these, 28 girls were also interviewed in-depth, and their perceptions of the intervention are also presented in this chapter.

Group membership and participation in the intervention programme

Before discussing girls' experiences, we note that opportunities for girls to meet outside of the home and school were, in general, limited in the project sites. For example, among those for whom we had a complete interview at baseline, just 1 percent of the 854 girls in the intervention site and 4 percent of the 251 girls in the control site reported membership in any group. At endline, similarly, just 11 percent of the 279 girls in the control site reported group membership. In the intervention site, in contrast, a total of 45 percent of the 990 girls interviewed at the endline reported group membership, 42 percent in the groups

established by our project and 5 percent in other groups.

While there was considerable enthusiasm among girls to join the intervention programme and become members of the group, it was evident that parents were key decision-makers regarding girls' participation. Animators thus made house-to-house visits to inform both parents and girls about the intervention programme. As presented in Table 4.1, of the 390 girls who participated in the intervention programme, 89 percent had learned about the programme from these house-to-house visits. Almost all respondents (92%) reported that they had received their parents' permission to join the programme (data not shown in tabular form). It was clear, moreover, that the promise of learning a livelihood skill was by far the most prominent reason—universally cited—motivating girls' enrolment in the intervention programme. However, about one-third of the participants reported that they had joined the programme also because they wanted information on different issues or wished to spend time with their peers. Similar reasons were frequently cited in in-depth interviews, sometimes even in defiance of parental refusal. For example:

I thought I should learn how to sew. So I put my name down and since then, I have been going to the centre. I wanted to learn a skill so that I can earn and would not need to ask anyone for money. I thought that if I sew one or two outfits a day, I could earn some money. [Age 15]

I went to the centre on my own. My family members refused to give me permission, but I went there anyway as I had got my name listed earlier without telling anyone. I thought that if I joined the centre I would gain knowledge or some good qualities and I would learn some skills.
[Age 19]

Not all enrolled girls participated regularly in intervention activities. As discussed in Chapter 3 (Table 3.1), about two in five intervention participants reported that they had attended group activities irregularly, that is, they had attended less than half of all sessions. Questions were posed to these girls regarding their reasons for irregular attendance. Leading reasons, presented in Table 4.2, were lack of time and, related, housework responsibilities (42% and 32%, respectively). In in-depth interviews, girls elaborated on these issues:

I didn't get time [to go to the centre] because I had to do the housework. My sisters go to school and my parents go to work. I didn't feel good about not being able to attend; I would try to go to the centre but I could not spare the time.
[Age 16]

There was a lot of work to be done at home. My mother would scold me and would not let me go anywhere. But I used to go [to the centre] secretly. I would try to do the house work in the morning and evening, and in this way I could go to the centre. [Age 18]

I would go everyday [to the group meetings] but not if I had a lot of housework pending. If it became late because of housework, then I would not go. [Age 16]

Several school-going girls reported that they had missed group sessions because of school-related commitments. For example:

I missed the session sometimes when I had to go to school. As my school is far away, I would sometimes be late for the session, so I would not go to the centre. [Age 18]

I go to school and when I come back, I do some housework. I study in the evening, that's why I don't get the time to go to the centre [Age 15]

Moreover, some 14 percent of girls reported that their parents refused to allow them to attend the sessions on a regular basis, and 11 percent had

Table 4.1:
Source of information regarding the intervention programme, and reasons for joining the programme, endline survey

	N=390
Learned about the programme from:	
Animator	89.0
Friends	19.7
Parents	2.8
Neighbours	12.3
Reasons for joining the programme:	
To learn a vocational skill	99.7
To get information on different issues	33.3
To interact in a group/be with friends	12.1

Note: Totals may exceed 100% because of multiple responses.

Table 4.2:

Reasons for not attending the intervention programme regularly, endline survey

Reasons (%)	N=133
Lack of time ¹	42.1
Housework responsibilities	32.3
Parents refused to give them permission to attend	13.5
Got married or moved out of the village	11.3
Did not like the topics discussed in sessions	10.5
Animator-related reasons ²	8.3
Centre inconveniently located	6.0
Other reasons	12.8

Notes: ¹ Includes such responses as school timings clashed with the timings of group activities or more generally group timings did not suit the respondent.

² Includes such responses as the respondent did not like the animator or that the animator did not hold sessions regularly.

discontinued attendance because they had married or moved out of the village.

Programme-related issues were also cited as reasons for irregular attendance. Indeed, one in 10 respondents reported that they did not like the topics discussed in the sessions; and 8 percent reported animator-related issues such as, for example, that they did not like the animator or that the animator did not hold sessions regularly. Some participants cited other reasons for their irregular attendance. These included, for example, that they were studying for examinations, or that they or a family member was unwell (13%).

In order to assess girls' perceptions about whether or not group activities had succeeded in breaking their social isolation, a number of statements were made and intervention participants were asked whether they agreed or disagreed with these statements. Findings, presented in Table 4.3, show that irrespective of whether participation in the programme was regular or not, girls' perceptions of the intervention were generally positive. For example, more than two in five girls (43%) reiterated that the programme centre was the only place that parents

permitted them to visit where they could meet and interact with other girls. Indeed, almost all the intervention participants (97%) reported that they looked forward to the group activities, and a similar proportion (92%) explicitly mentioned that they enjoyed spending time with their peers at the centre. Moreover, as many as three-quarters reported that participation in the programme had enabled them to expand their network of friends. While these are positive findings, we acknowledge the potential for bias towards what are perceived to be desirable responses.

These positive assessments were also reinforced in in-depth interviews, for example:

When I went there [to the centre], the didi [animator] introduced everyone, and told us everyone's name. I didn't know the girls earlier and the other girls also didn't know me.... when I started to go to the centre regularly, I made friends and learnt sewing with them; we would also play with each other. [Age 18]

I have more friends now. Earlier I had a few friends but now I have made 3–4 new friends. [Age 17]

Table 4.3:

Adolescent girls' perceptions of group activities, endline survey

Perceptions (%)	N=390
Respondent agreed that:	
The centre was the only place her parents permitted her to visit where she could meet other girls	43.1
She looked forward to participating in group activities	97.2
She enjoyed spending time with friends in the group	92.3
She had made new friends in the group	76.2

In short, findings suggest that the intervention programme and group activities did indeed provide girls a unique opportunity to engage in activities outside of the home and school, and to expand peer networks, which were not available prior to the initiation of the programme. They also highlight the significant role that parents played in enabling girls to enrol in the programme and determining whether or not they attended programme activities on a regular basis, and argue for sustained interaction between programme implementers and parents that not only keep parents informed about programme activities and their rationale but also address parental inhibitions and the difficulties encountered in enabling girls' engagement in programme activities.

Quality and acceptability of the life skills education curriculum

As discussed earlier, the 138-hour life skills education curriculum covered a range of topics—for example, self-image, goals setting and planning one's future, values identification, gender and family roles and relationships, role in the community and women's leadership, work and career planning, peer relationships, marriage and parenthood, sexual and reproductive health, the environment and legal issues. Girls were probed about each of these topics—whether they had attended sessions relating to each topic, whether they had learned anything new, whether

it was the first time this topic had been discussed with them, and whether they were embarrassed by the information provided. Results are presented in Table 4.4.

Findings show that three-fifths or more girls had attended sessions pertaining to every major topic included in the life skills education curriculum: 58–87 percent reported that they attended at least one session on each of the topics. Over 80 percent had attended sessions on self-image, communication and self-assertiveness, future planning and health promoting behaviours, including on sexual and reproductive health matters. Irrespective of the topic, over 90 percent reported that they had learned something new. Indeed, many reported that this was the first time these topics had ever been discussed with them, a finding reinforced by responses provided at the time of the baseline interview suggesting that girls' communication with both peers and parents was limited. More than nine in 10 respondents reported that this was the first time anyone had discussed with them such issues as self-image, values and feelings, on the one hand, and sexual and reproductive health matters, on the other.

Many girls reiterated these perceptions in in-depth discussions. Some expressed the view that such programmes are necessary for girls generally, while others described how the programme had developed a

Table 4.4:

Adolescent girls' perceptions of the quality of the life skills education curriculum, endline survey

Topics in curriculum	Attended at least one session	Learned something new	Reported that this topic had been discussed with them for the first time	Felt embarrassed during this session
N=390				
Self-image, role in community, feelings, and values identification	85.6	96.1	95.8	7.8
Family roles and relationships	64.4	90.4	60.6	2.4
Marriage and parenthood	58.2	97.4	80.6	18.5
Legal rights, equal rights and responsibilities	61.5	96.3	79.6	5.4
Environment issues	62.8	93.9	64.1	3.7
Communication skills, self-assertiveness and forging relationships	80.5	95.5	69.8	2.9
Planning own future, work, earnings and savings	85.1	96.4	85.2	1.5
Girls' health including sexual and reproductive health ¹	87.4	98.2	91.2	71.3

Note: ¹ Includes mental health, puberty, reproduction, STIs and HIV/AIDS, sexual harassment and rape as well as healthy practices.

future orientation among the participants, for example:

Whatever I learned at the centre about our body and society I will remember for my whole life. We learned many things at the centre—for example, how a child is conceived and when menses start. We also learned a lot about HIV/AIDS, for example, that HIV spreads through unsafe relations, infected needles and infected blood. [Age 15]

I got information about many things [from the centre] like adolescent body changes and teenage matters and came to know about sexual relations also. I also came to know about cutting, tailoring and applying mehendi. I like all these things and am happy that I joined the centre. Everyone [the participants] was very happy. [Age 17]

Earlier I didn't know about many things but ever since I joined the centre, I understand many

things. I know about menses and hygiene, and the right age for marriage. I came to know about all these things from this centre. I think it [this programme] is necessary for all girls. [Age 15]

I got information about many things I didn't know about earlier. I came to know about what happens in the teenage years. There are still many girls who don't know about these things, so I tell them. We have gained so much knowledge and we have come to know about our body also. [Age 18]

I have gained a lot. When we went there [to the centre] our knowledge increased. we now think about moving ahead in life and become somebody. We think of doing something in life and we also think about studying further. [Age 17]

Many of the topics included in the life skills education curriculum covered sensitive issues, such as marriage and parenthood, and especially, sex and reproduction. As expected, while fewer than 10 percent

of intervention participants reported being embarrassed by any other topic, 19 percent reported embarrassment at learning about marriage and parenthood matters, and as many as 71 percent felt embarrassed while learning about sex and reproduction. Indeed, among topics relating to sex and reproduction, those associated with embarrassment for the largest percentages included puberty (67%), reproduction (56%) and sexual harassment and rape (about 40%) (not shown separately in tabular form).

Intervention participants also assessed the performance of their animators in the course of the endline interview. As mentioned earlier, animators played a key role in imparting the programme. Indeed, Prerana had made concerted efforts to recruit appropriate animators and invested to a large extent in their training, recognising that the quality of the programme and its effects on girls' lives depended to a considerable extent on the performance of the animators.

In order to assess the performance of their animators, girls were asked whether sessions had been regularly held, whether the animator had been able to explain different topics and answer queries satisfactorily, and whether girls felt comfortable about approaching the animator, if necessary. Results, presented in Table 4.5, suggest that over 90 percent of

all girls were satisfied with the performance of their animators on all of these matters explored. In-depth interview narratives reinforce these findings.

For example:

The didi [animator] was good-natured. If I didn't understand something I could ask her again and she would explain it to me again. She behaved well—like a mature person.... She acted like a friend. She talked in a way that friends talk with each other. [Age 18]

The didi [animator] at the centre was good. I felt good and what I liked about her was that she talked with everyone like a friend. [Age 18]

I felt good when I joined the centre. I liked our animator. She explained everything nicely. [Age 15]

If we were unable to understand something we would tell our didi [animator] and she would explain it to us again. [Age 15]

Even so, some girls did point out that the animator was unable to explain certain issues or felt uncomfortable doing so, for example:

Our didi [animator] was nice. Her way of teaching was very good; she was good in speaking and in everything else. But sometimes she didn't explain everything correctly. She was not able to explain everything openly. [Age 18]

Table 4.5:
Adolescent girls' assessment of their animators' performance, endline survey

Girls' assessments	N=390
% reporting that the animator:	
Held sessions regularly	93.3
Explained things clearly	92.5
Was able to answer life skills-related questions	90.1
Could be approached to discuss any problems a girl may have	93.1

Quality of the livelihood skills training programme

As mentioned earlier, the main reason for girls joining the intervention programme was the opportunity it offered them to develop a livelihood skill. Girls in all groups opted for training in tailoring. Girls thus underwent training for six months in tailoring, which was offered by a skilled trainer. In the course of the endline survey, girls were asked several questions about their experiences of the livelihoods training programme. Findings are presented in Table 4.6.

While the vast majority of girls expressed support for the livelihoods component, several issues with regard to the quality of the programme were raised. For example, 18 percent reported that they did not have sufficient opportunities to practise their skill. Moreover, even after completing the training programme, just 29 percent believed they had become sufficiently skilled so as to use the skill acquired independently, and one in three admitted that they still required considerable support in using the skill. Nevertheless, it was evident that the programme had succeeded in building a livelihood skill amongst programme participants: almost three-quarters

(74%) had used the skill after completing the training programme; of these, almost two in five had used the skill to generate an income, and almost all (92%) intended to use this skill to generate an income in the future.

Again, girls reiterated these perceptions in in-depth interviews. For example:

I feel I have learned a lot. Earlier I didn't know anything—like cutting and sewing, and I was unable to thread a needle or operate a sewing machine with the foot pedal. Now I can use the sewing machine and I know how to cut and sew clothes. I have also learned how to apply mehendi and many other things that didi [animator] has told us about. I feel very good that a centre has been opened here. [Age 17]

They [the centre] gave us training in sewing, and they taught us other things as well. I learnt how to apply mehendi and to make candles. [Age 15]

There have been many new things I have learnt [at the centre]. I did not how to sew before but now I have learned how to do that. They also tell us how to read books there [at the centre]. Earlier

Table 4.6:
Adolescent girls' experience of the livelihood skills training programme, endline survey

Experiences	N=390
% reporting they had sufficient opportunities to practise the skill	81.8
Perceived expertise acquired in the skill after graduating from the programme:	
Could use the skill independently	29.1
Still required help	37.5
Needed considerable help	33.4
Use of skill after completing the livelihoods skills training programme:	
% who had used the skill after completing the training	73.8
Among those who had ever used the skill % who:	
Had used the skill to generate an income	39.0
Intended to use the skill in future to generate an income	92.0

I did not have much knowledge but now I have got to know many things. [Age 17]

Summary

In summary, findings suggest that considerable proportions of adolescent girls who had enrolled in the intervention did not attend programme sessions regularly. Nevertheless, irrespective of whether participation in the programme was regular or not, girls' perceptions of the intervention were generally positive: many acknowledged that the programme

centre was one of the few places in which they could meet and interact with other girls, most had expanded their network of friends through the intervention, and many reported that they had learned about sexual and reproductive health matters for the first time in the course of the intervention. While the livelihood skills training component of the programme was a key factor motivating girls to enrol, and while many succeeded in building a skill as a result, most adolescent girls admitted that they did not feel proficient enough to pursue the skill independently.

Effects of the intervention programme on girls' agency, gender role attitudes, awareness and communication with parents

This chapter presents findings with regard to the effects of the intervention on four key dimensions of girls' lives, namely, their agency, gender role attitudes, awareness of sexual and reproductive health matters, and communication with parents. The intention is to assess both the extent to which girls' agency, expression of egalitarian gender role attitudes, sexual and reproductive health awareness and communication with parents increased, as well as the extent to which change observed in these indicators may be attributed to girls' exposure to the intervention. We supplement these findings with girls' own assessment of whether participation in the intervention had changed their agency and awareness, and helped them learn a new skill.

Methodology

In view of the fact that a sizeable number of respondents in the intervention site did not participate in the intervention, or had participated irregularly, findings are presented separately for four groups of girls: those residing in the intervention site who (a) participated regularly (regular intervention participants); (b) participated irregularly (irregular intervention participants); (c) did not participate at all in the intervention (non-participants in the intervention site); and (d) those who were from the control site. Data are available from both the baseline

and endline surveys for a total of 1,038 girls who were unmarried and aged 13–17 at the time of the baseline interview. These include 222 regular intervention participants, 117 irregular intervention participants, 471 intervention non-participants and 228 girls from the control site. Respondents for whom complete interviews are not available at both points of time are excluded from the analysis.

To ascertain the degree of change in indicators attributable to exposure to the intervention programme, that is, to assess the net effect of exposure to the intervention on agency, attitudes, awareness and communication outcome indicators, we use difference-in-differences (DiD) estimators (Ashenfelter, 1978; Ashenfelter and Card, 1985). The DiD method contrasts the difference in average outcome in the intervention group before and after exposure to the intervention, with the difference in average outcome in the control group at baseline and endline. In this way, the model isolates the effect of exposure to the intervention by cancelling out the effects of other factors external to the intervention that both sites may have experienced in the period between the baseline and endline surveys—a key assumption of the DiD model is that other factors external to the intervention (such as, the introduction of new programmes for girls) that have the potential to affect outcome measures affect both the intervention and

control sites in a similar way.¹ The model also isolates the effect of any pre-existing differences between the intervention and control groups.

Mathematically, a DiD model can be represented as below:

$$\text{IMPACT} = (Y_{i1} - Y_{i0}) - (Y_{c1} - Y_{c0})$$

Where, Y_{i0} and Y_{i1} are the outcome measures at baseline and endline for those who participated in the programme, and Y_{c0} and Y_{c1} are the outcome measures at baseline and endline for those from the control site.

In the DiD model, respondents from the control site were compared with regular intervention participants, irregular intervention participants and non-participants from the intervention site, respectively. However, for convenience, findings are presented that compare the situation of all and regular intervention participants, respectively, with those from the control site. Differences between the change in outcome measures experienced by girls in the control site and those in each of these two groups (all intervention participants and regular intervention participants) are presented in this chapter; t-tests have been performed that assess the extent to which the relative improvements in outcome in the intervention versus the control group are statistically significant.

Since a comparison of key socio-demographic characteristics, as available from the baseline assessment, confirmed that girls from the three groups described above were similar on almost all indicators (see Appendix Table 2), it was not necessary to control for socio-demographic differences between

these groups. Indeed, a multivariate regression analysis using the DiD method and controlling for key socio-demographic characteristics was conducted and revealed results (not shown in tabular form) identical to those presented in the following sections; hence we opted for the simpler and equally robust DiD method using unadjusted means and percentages.

Effects of exposure to the intervention programme on girls' agency

To assess the effects of exposure to the intervention on improving girls' agency, four indicators were used at baseline and endline, namely, girls' involvement in decision-making on matters relating to their lives; mobility or freedom to visit selected places unescorted; sense of self-efficacy; and access to economic resources. Summary indexes were created, as discussed in Chapter 2, to measure girls' involvement in decision-making, mobility and sense of self-efficacy.

Decision-making

As seen in Chapter 3, the Better Life Options model aimed to develop girls' ability to exercise choice in matters related to their lives. For example, it familiarised girls with their rights and exposed them to ways of negotiating wanted outcomes, and more generally, making decisions pertaining to their own lives, such as developing friendships, spending money, attending school and participating in economic activities. This decision-making role was captured, as described in Chapter 2, in a summary index of decision-making created by summing girls' responses to five questions relating to their involvement in decision-making.

¹ In order to check whether our DiD model conforms to this assumption, we estimated the proportion of respondents who attended any other life skills education programme during the intervention period. Results show that only 7 percent and 5 percent each from the control site and those from the intervention site who did not participate in our programme, respectively, compared to 5 percent of those who had participated in our intervention programme had participated in other life skills education programmes. These differences were not statistically significant.

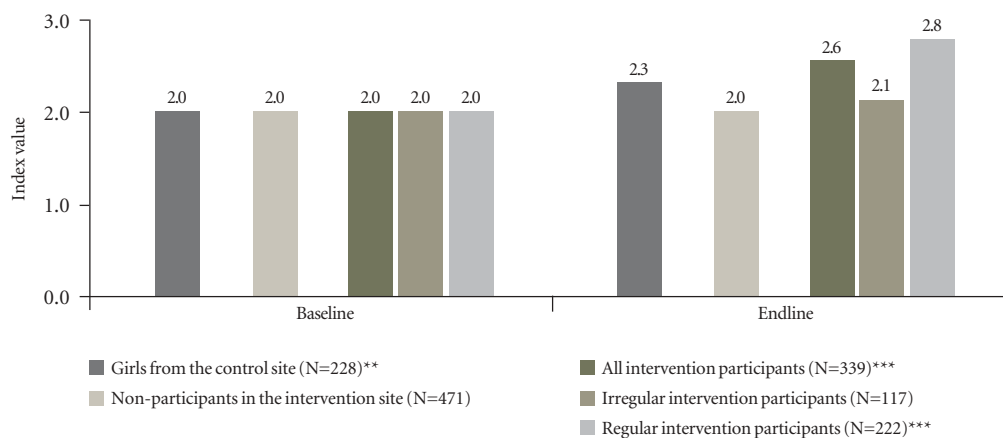
Figure 5.1 presents the index of decision-making at baseline and endline for girls from the intervention and control sites. Findings confirm, in general, girls' increased involvement in decision-making over the two-year period between the baseline and the endline interview. Results also indicate that independent decision-making increased somewhat more sharply among all those who participated in the intervention (2.0 to 2.6, or by 30%) than those in the control site (2.0 to 2.3, or by 15%) and those in the intervention site who did not participate in the programme. Of note is the finding that the improvement in decision-making was sharpest among those who attended intervention activities regularly (from 2.0 to 2.8, or by 40%) as compared to other groups.

The results of the DiD model, presented in row 1 of Table 5.1, show the extent of change in independent decision-making among all girls who participated in the intervention in general, and those who participated regularly in the intervention in particular, as compared with the extent of change experienced by the girls from the control site. Findings confirm that the change was

significantly greater among all girls who participated in intervention activities, and specifically among regular intervention participants, than among girls in the control site. Specifically, findings may be interpreted to suggest that almost 50 percent² of the change in independent decision-making reported by all girls who participated in the intervention can be attributed to exposure to the intervention, and that as much as 63 percent of the improvement in independent decision-making among those reporting regular exposure may be attributed to exposure to the intervention.

In summary, we note that overall, independent decision-making among girls increased significantly albeit moderately. Findings suggest, moreover, that decision-making ability increased among all groups (except among girls in the intervention site who did not participate in the programme) but particularly among girls reporting regular exposure to the intervention. Indeed, after the effects of age and other exogenous factors were controlled, findings confirm that participation in the intervention programme had

Figure 5.1:
Index of decision-making, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

² Percent change attributable to exposure to the intervention is calculated as the percentage of impact of the intervention (cols 3 and 5 of Tables 5.1, 5.3, 5.5 and 5.7) to total change during the intervention period (cols 2 and 4 of Tables 5.1, 5.3, 5.5 and 5.7).

a powerful net effect on improving girls' decision-making ability, but that regular participation had a significantly greater net effect.

Mobility

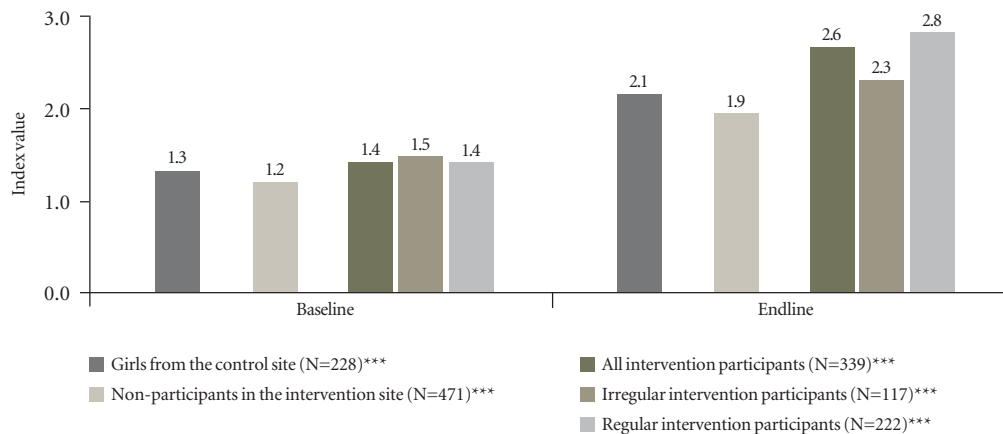
While the Better Life Options model did not make direct efforts to improve girls' mobility, its focus on exposing girls to the world around them and building their confidence more generally were expected to enhance girls' mobility in a more indirect way. Girls' mobility was captured, as described in Chapter 2, in an index of mobility that summed responses to seven questions relating to girls' freedom of movement.

Figure 5.2 presents values on the index of mobility at baseline and endline for girls from the intervention and control sites, grouped as before. Findings confirm that mobility increased moderately; at the time of the endline survey, girls could visit 1.9–2.8 places unescorted (out of a maximum of 7), compared to 1.2–1.5 at the time of the baseline survey. As seen in Figure 5.2, improvement in mobility was

significant among all the groups. However, the increase among intervention participants, and notably, among regular intervention participants, was considerably greater than the increase recorded by the control group. For example, the mobility index value increased for girls in the control site by 62 percent (from 1.3 to 2.1) compared an 86 percent increase among all intervention participants and a 100 percent increase among regular intervention participants (from 1.4 to 2.6 and from 1.4 to 2.8, respectively).

Findings of the DiD model, presented in row 2 of Table 5.1, confirm once again that the change in mobility was significantly greater among girls in the intervention group, and specifically those who attended intervention activities regularly, than among girls in the control site. Specifically, findings may be interpreted to imply that 32 percent of the change in mobility reported by all girls who participated in the intervention and over 42 percent of the improvement in mobility among those reporting regular exposure can be attributed to the intervention.

Figure 5.2:
Index of mobility, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

In short, this section makes three notable conclusions. First, girls' mobility did indeed increase significantly in both the control site and among programme participants in the intervention site. Second, girls who participated in the intervention reported a greater increase in mobility than did those in the control site; and those who were regularly exposed to the intervention experienced the most impressive increase in mobility. Finally, after the effects of age and other external factors were accounted for, findings confirm that much of the change in mobility experienced by girls in the intervention group, and notably those who attended its activities regularly, can be attributed to the intervention.

Sense of self-efficacy

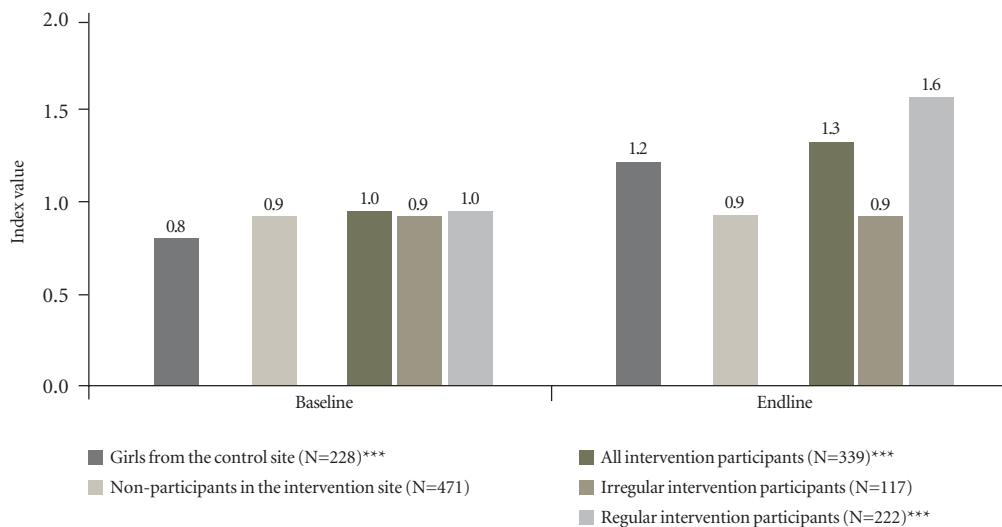
As seen in Chapter 3, the Better Life Options model focused, in many ways, on developing girls' sense of self-worth—for example, its modules addressed goal setting, feelings, communication skills, assertiveness and rights. This sense of self-efficacy was captured, as

described in Chapter 2, in an index measuring self-efficacy created by summing girls' responses to three questions relating to their perceived self-confidence.

Findings, presented in Figure 5.3, highlight low overall levels of self-efficacy at the time of both the baseline and endline surveys: of a possible maximum score of 3, girls obtained a score of just 0.8–1.0 at the time of the baseline survey and 1.2–1.6 at the time of the endline survey. In this case, while self-efficacy scores increased significantly among girls in both the control and intervention sites, the increase was greater among the former (50%, from 0.8 to 1.2) than the latter (30%, from 1.0 to 1.3). As before, regular participants of the intervention recorded the greatest increase—60 percent—in their sense of self-efficacy (from 1.0 to 1.6).

The results of the DiD model, as presented in row 3 of Table 5.1, show, likewise, that the increase in sense of self-efficacy recorded by all girls exposed to the intervention was statistically insignificant

Figure 5.3:
Index of sense of self-efficacy, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

compared to the increase recorded by girls in the control site, that is, none of the increase in self-efficacy observed among the latter can be attributed to the intervention. In contrast, about 30 percent of the increase in self-efficacy experienced by girls who reported regular participation can be attributed to the intervention.

In short, findings suggest that self-efficacy increased mildly but significantly among both girls in the control site and those who participated in the intervention programme. The most impressive increase occurred among regular intervention participants, and a significant net increase attributable to the programme was observed only in this group. These findings suggest that an increase in girls' sense of self-efficacy requires sustained participation in the intervention programme.

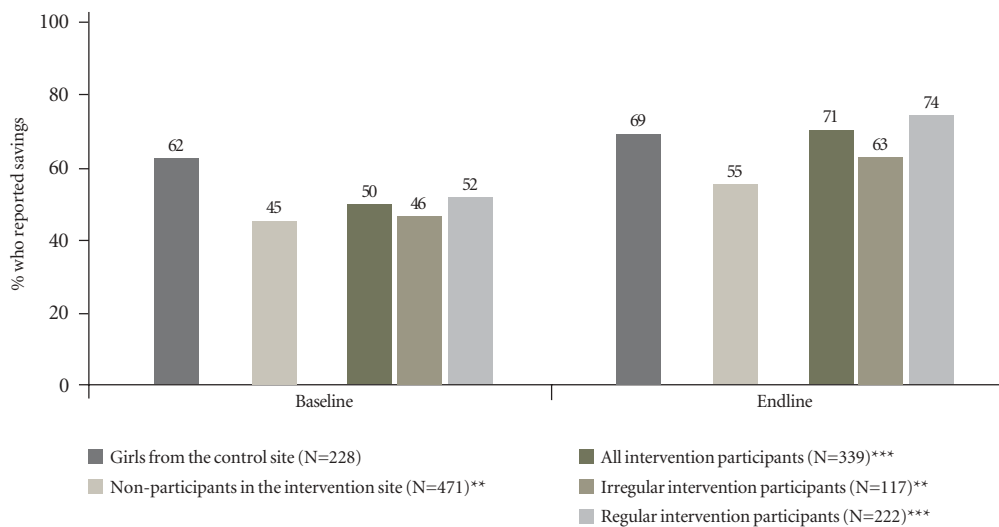
Access to economic resources

The intervention programme focused, to a considerable extent, on developing a savings

orientation and economic independence among girls. As mentioned earlier, we measured the extent to which girls had access to resources by asking them whether or not they had saved money from gifts, wages or pocket money. Changes in girls' savings habits are captured in Figure 5.4.

Findings show that at the time of the baseline survey, a considerably larger percentage of girls in the control group as compared to the intervention groups reported savings (62% compared to 45–52% in the intervention groups). They also confirm that the percentage of girls reporting savings increased over the two-year period between the baseline and the endline surveys; increases were statistically significant for all girls from the intervention site, and particularly for those who had participated in the intervention programme. The percentage who had saved increased by 17–22 percentage points among girls who had participated in the intervention programme: 22 points among regular participants and 17 points among those who had participated irregularly. The increase

Figure 5.4:
Percentage of adolescent girls who reported savings, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

was just 7 percentage points, in contrast, among girls in the control site.

The results of the DiD model, as presented in row 4 of Table 5.1, show that the increase in percentages of all intervention participants who had saved money was significantly greater than the increase reported by girls in the control site. Specifically, findings may be interpreted to imply that among all intervention participants, 14 of the 21 percentage point increase in savings (or 67%) was attributable to the intervention, and among regular participants, a virtually identical increase—16 of the 23 percentage point increase (or 70%)—was attributable to the intervention. However, we acknowledge that in this case, unlike in previous discussions, the baseline value of the control group was considerably higher than that of the intervention groups (see Figure 5.4); and that the relatively milder

increase in the proportion of girls in the control site who reported savings may also have been influenced by this higher baseline value.

In short, findings suggest a considerable increase in the percentage of girls reporting savings in the intervention site as compared to a relatively mild increase in the percentage of girls who held savings in the control site. It appears that there was a significant net effect of the intervention and that any exposure to the intervention—and not necessarily regular exposure—was sufficient to encourage girls to save money.

Girls' assessments of changes in their agency

Girls who participated in the intervention were probed about whether they perceived that participation in the intervention programme had enhanced their agency. Findings, presented in Table 5.2, suggest that the

Table 5.1:

**Effects of exposure to the intervention programme on adolescent girls' agency:
Difference-in-differences estimators**

Indicator	Girls from the control site (N=228)	All intervention participants (N=339)		Regular intervention participants (N=222)	
	Change ¹	Change ¹	Impact of intervention (DiD estimate) ²	Change ¹	Impact of intervention (DiD estimate) ²
Index of decision-making	0.28	0.55	0.27* (0.13)	0.74	0.47*** (0.15)
Index of mobility	0.83	1.22	0.39* (0.18)	1.44	0.61*** (0.19)
Index of sense of self-efficacy	0.43	0.38	-0.04 (0.12)	0.60	0.18+ (0.13)
Access to economic resources (%)	6.6	20.6	14.1** (5.58)	22.5	15.9** (6.06)

Notes: Values in brackets are standard errors.

T-test for DiD estimate > 0 is significant at: + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

¹ Endline value minus baseline value.

² Change among intervention participants minus change among girls in the control site.

majority of girls who had participated in the intervention—irrespective of the extent of their participation—reported in the affirmative. For example, two-thirds of all intervention participants, and over three-quarters of those who had attended regularly, reported that they were less afraid than before the intervention about going out anywhere on their own.

In addition, the large majority of girls reported an increase in their sense of self-efficacy: over 70 percent of all participants, and around 90 percent of those who had attended intervention activities regularly, reported that they had become more confident, were better able to speak without hesitation or fear, were more likely to speak out if they disagreed with another's viewpoint and were more confident about making friends. Two-thirds of all participants and over three-quarters of regular participants reported that they had developed the habit of saving money as a result of the intervention, and 78 percent of all respondents and 90 percent of those who had

attended the programme regularly reported that they were now more likely to consider it important for girls to work. Girls who attended the programme irregularly were also likely to report that their exposure to the programme had given them more confidence with regard to physical mobility, self-efficacy and access to resources; however fewer irregular participants than those who attended regularly reported these changes.

In in-depth interviews too, when asked about whether participation in the intervention had changed their behaviour in any way, many girls talked about their enhanced ability to speak out. For example:

Earlier I was unable to talk openly but now I can talk to anyone. Our didi [animator] at the centre told us that there is no difference between a boy and a girl, and that girls should also talk openly; that is why I can talk to anyone now. [Age 14, regular participant]

Now I can talk openly to anyone. All us friends would go to the centre and talk a lot with

Table 5.2:

Adolescent girls' perceptions of change in their agency as a result of participation in the intervention programme, by extent of participation

Perceptions of change in agency as a result of participation in the programme (%)	Extent of participation		
	All intervention participants (N=390) ¹	Irregular intervention participants (N=133)	Regular intervention participants (N=257)
Mobility			
Less afraid to go out alone	66.7	47.4	76.7
Sense of self-efficacy			
Become more confident	83.1	59.4	95.3
Can speak without hesitation/fear	78.7	52.6	92.2
More likely to speak out if they disagree with someone	73.1	43.6	88.3
More confident about making new friends	82.1	63.9	91.4
Access to economic resources and attitude to work			
Developed savings habit	65.4	44.4	76.3
More likely to consider it important for girls to work	78.0	54.1	90.3

¹ Includes all intervention participants for whom endline data were available.

everyone in the group. Earlier I used to feel shy. Now I don't hesitate—I can say if someone is pregnant; I can talk about HIV/AIDS, sexual relations and that AIDS spreads through unsafe sexual relations and infected needles. [Age 15, regular participant]

Earlier I was not able to talk properly... like when Sir [Prerana coordinator] came, I was unable to speak because he was not a known person. Now I can talk to anyone. Earlier I didn't talk much to anyone, but since joining the centre, when a new didi [animator] came or a new girl joined the group, I could talk to her without hesitation. If the teacher asked a question, I would answer it. [Age 17, regular participant]

I used to feel shy when I first went there [the centre]. I would not play, sit or laugh with anyone and didn't talk to anyone. When the session ended I would go back home. Now I can talk to anyone. [Age 17, regular participant]

In contrast, girls in the control site were less likely to report these self-assessments of increased self-efficacy. For example:

There is no difference in my behaviour. I am the same as I was when I was a child. I cannot talk to anyone openly even now. I hesitate to talk to anyone. [Age 15, control site]

Effects of exposure to the intervention programme on girls' gender role attitudes

As seen in Chapter 3, almost every module of the *Choose a Future!* curriculum contained a gender focus. Baseline and endline surveys assessed girls' gender role attitudes through a range of questions. Two indicators were created as described in Chapter 2. The index of

gender role attitudes summed the number of egalitarian responses expressed by girls on a total of four statements posed to them regarding their attitudes towards gender roles. The second measured girls' perceptions about whether 16 selected occupations could be performed by men and women alike.

Figure 5.5 presents values on the gender role attitudes index at baseline and endline for girls from the control site and the intervention site; as before, responses are provided separately for girls who participated in the intervention regularly, those who participated less frequently and non-participants in the intervention site. Findings confirm that gender role attitudes did indeed become more egalitarian over the two-year period between the baseline and the endline interview: from an average of 2.8–3.1 gender egalitarian statements at the time of the baseline survey to 3.1–3.6 at the time of the endline survey (out of a maximum of four). The increase in the indicator value was greater among girls who participated in the intervention (16% for both all and regular participants) than among girls in the control site and those from the intervention site who did not participate in the programme (10–11%).

Figure 5.6 presents findings of girls' gender egalitarian work-related attitudes. Here we find wide differences between the control and intervention sites. Indeed, just 11 percent of girls in the control site and 7 percent of girls in the intervention site who did not participate in intervention programme perceived, at the time of the baseline survey, that it was acceptable for women and men alike to take up 16 selected occupations/professions; these percentages were similar (9% and 10%, respectively) at the time of the endline survey. In contrast, the corresponding increase was from 10 percent to 24 percent—that is, 14

Figure 5.5:
Index of gender role attitudes, baseline and endline surveys

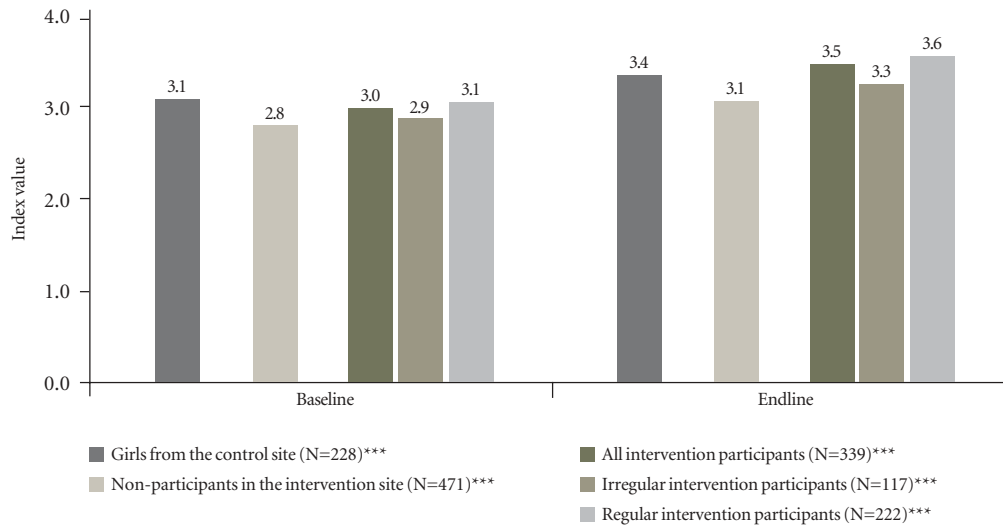
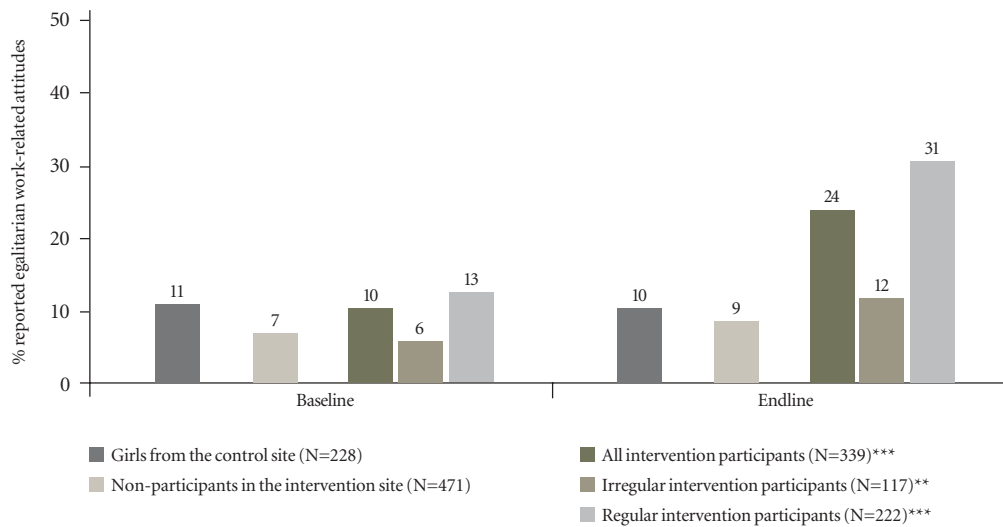


Figure 5.6:
Adolescent girls' gender egalitarian work-related attitudes, baseline and endline surveys



percentage points—among all girls who participated in the intervention and 18 percentage points (from 13% to 31%) among regular intervention participants.

Findings of the DiD model, presented in Table 5.3, show that the change in both gender role attitudes and gender egalitarian work-related attitudes was significantly greater among girls in the intervention group, and specifically those who attended intervention activities regularly, than among girls in the control site. Specifically, findings may be interpreted to suggest that about 44 percent of the change in gender role attitudes and all of the change in gender egalitarian work-related attitudes reported by all girls who participated in the intervention can be attributed to the intervention programme.

In summary, findings suggest that gender role attitudes and work-related attitudes became more egalitarian over time in both the intervention and control groups. Moreover, evidence confirms that

even after accounting for the effects of age and other external factors common to both settings, much of the improvement in expression of gender egalitarian attitudes on both issues was indeed attributed to exposure to the intervention.

We note that change attributable to exposure to the intervention programme was considerably greater in relation to gender egalitarian work-related attitudes than gender role attitudes more generally. We interpret these findings to suggest that the livelihoods training component of the intervention programme, with its focus on the importance of girls' taking up economic activities and their resulting consequences for girls' economic independence, may have played a part in changing girls' attitudes towards gender work roles. In contrast, girls' traditional gender role attitudes were addressed by the programme in a more indirect way, and therefore the changes were not immediately evident.

Table 5.3:

Effects of exposure to the intervention programme on adolescent girls' gender role attitudes: Difference-in-differences estimators

Indicator	Girls from the control site (N=228)	All intervention participants (N=339)		Regular intervention participants (N=222)	
	Change ¹	Change ¹	Impact of intervention (DiD estimate) ²	Change ¹	Impact of intervention (DiD estimate) ²
Index of gender role attitudes	0.26	0.47	0.21* (0.09)	0.52	0.26** (0.10)
Indicator of gender egalitarian work-related attitudes	-0.88	13.6	14.4*** (3.63)	17.6	18.4*** (4.09)

Notes: Values in brackets are standard errors.

T-test for DiD estimate > 0 is significant at: + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

¹ Endline value minus baseline value.

² Change among intervention participants minus change among girls in the control site.

Effects of exposure to the intervention programme on girls' awareness of sexual and reproductive health matters

The *Choose a Future!* curriculum focused on raising girls' awareness of health matters and notably, those concerning sexual and reproductive health. In order to assess the effects of exposure to the intervention programme on girls' awareness of health matters, eight indicators were compared: awareness of the legal minimum age at marriage for females and males, respectively; correct knowledge of sex- and pregnancy-related matters; awareness of at least one method of contraception; correct specific knowledge about how to use oral pills or the condom; awareness of HIV/AIDS; comprehensive knowledge about HIV/AIDS; and awareness of STIs other than HIV.

Table 5.4 presents girls' awareness of each of these issues at the time of the baseline and endline interviews. Results clearly show that awareness of all these issues increased significantly, irrespective of whether girls resided in the control or intervention site and the extent of exposure to the intervention programme. With regard to awareness of the legal minimum age, findings suggest that awareness did in fact increase for all groups, but the increase was far more dramatic among girls who participated in the intervention than girls in the control site. In contrast, findings suggest that general awareness—of at least one method of contraception, HIV/AIDS and other STIs—increased to an approximately equal extent in all groups. However, in-depth awareness—for example, of how pregnancy occurs, how oral pills or condoms are to be used and HIV transmission modes—was more likely to be correctly reported by intervention participants, and notably those who participated regularly in intervention activities, as compared to those in the control sites. For example, while in the control site, the level of specific knowledge

of oral pills or condoms increased by 33 percentage points (from 28% to 61%), it increased by 42 percentage points among those who had attended the programme regularly (from 35% to 77%).

Likewise, while comprehensive awareness of HIV transmission routes increased by 18 percentage points among those in the control group (from 18% to 36%), it increased by 29 percentage points among all intervention participants (from 21% to 50%) and 37 percentage points among regular participants (from 26% to 63%).

Findings of the DiD model, presented in Table 5.5, confirm that the change observed in almost every measure of awareness was significantly greater among girls in the intervention group, and specifically among those who attended intervention activities regularly, than among girls in the control site. Indeed, change attributable to exposure to the intervention was considerable in the case of awareness of sex- and pregnancy-related matters and comprehensive awareness of HIV transmission routes. Specifically, findings may be interpreted to suggest that 28 percent of the change in awareness of sex- and pregnancy-matters, and 35 percent of change in comprehensive awareness of HIV transmission routes reported by all girls who participated in the intervention programme can be attributed to exposure to the programme; these net effects were even higher among regular intervention participants (36% and 49%, respectively).

In summary, findings suggest that there has been an upward secular trend in awareness of sexual and reproductive matters among girls generally. The fact that girls were two years older at the endline, and external factors, including the considerable attention provided in the media on these issues, could have also had an effect on girls' increased awareness of the minimum legal age at marriage, sex and pregnancy, contraception and HIV. Nevertheless, even after

Table 5.4:
Adolescent girls' awareness of sexual and reproductive health matters, baseline and endline surveys

Indicator	Control		Intervention							
			Non-participants		Participants					
			Baseline	Endline	All		Irregular		Regular	
Legal minimum age at marriage for females (%)	76.8	82.0*	62.6	76.2***	72.6	84.7***	69.2	83.8***	74.3	85.1***
Legal minimum age at marriage for males (%)	42.5	49.6*	34.3	49.0***	43.4	63.1***	36.8	54.7***	46.8	67.6***
Sex- and pregnancy-related matters (mean of 4)	0.9	1.7***	0.8	1.6***	0.8	1.9***	0.8	1.6***	0.8	2.1***
Aware of at least one method of contraception (%)	66.2	94.7***	54.1	96.2***	58.1	98.2***	53.8	95.7***	60.4	99.5***
Correct specific knowledge about how to use the oral pill or condom (%)	27.6	61.0***	20.4	46.9***	29.8	66.1***	20.5	45.3***	34.7	77.0***
Aware of HIV/AIDS (%)	57.9	85.5***	48.5	79.1***	64.0	92.9***	49.6	83.8***	71.6	97.7***
Comprehensive knowledge of HIV/AIDS (%)	17.5	36.4***	15.1	26.5***	20.9	50.1***	11.1	25.6***	26.1	63.1***
Aware of STIs other than HIV (%)	4.8	32.5***	1.7	16.8***	1.1	26.0***	0.0	17.9***	1.8	30.3***

Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

Table 5.5:

Effects of exposure to the intervention programme on adolescent girls' awareness of sexual and reproductive health matters: Difference-in-differences estimators

Indicator	Girls from the control site (N=228)	All intervention participants (N=339)		Regular intervention participants (N=222)	
	Change ¹	Change ¹	Impact of intervention (DiD estimate) ²	Change ¹	Impact of intervention (DiD estimate) ²
Aware of the legal minimum age at marriage for females (%)	7.0	19.8	12.8** (4.79)	20.7	13.7** (5.07)
Aware of the minimum legal age at marriage for males (%)	5.3	12.1	6.8+ (4.16)	10.8	5.5 (4.60)
Correct knowledge of sex- and pregnancy-related matters (mean of 4 issues)	0.81	1.1	0.32*** (0.08)	1.3	0.46*** (0.09)
Aware of any method of contraception (%)	28.5	40.1	11.6** (4.17)	39.2	10.7** (4.49)
Correct specific knowledge of how to use the oral pill or condom (%)	33.3	36.3	2.9 (4.31)	42.3	9.0* (4.69)
Aware of HIV/AIDS (%)	27.6	28.9	1.3 (3.89)	26.1	-1.5 (4.2)
Comprehensive knowledge of HIV/AIDS (%)	18.9	29.2	10.3*** (3.76)	36.9	18.1*** (4.19)
Aware of STIs, other than HIV (%)	27.6	24.9	-2.8 (3.76)	28.5	0.9 (4.25)

Notes: Values in brackets are standard errors.

T-test for DiD estimate > 0 is significant at: + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

¹ Endline value minus baseline value.

² Change among intervention participants minus change among girls in the control site.

accounting for these effects, much of the improvement in awareness—and particularly in-depth awareness—was indeed attributed to exposure to the intervention programme, in particular, regular participation in intervention activities.

Girls' perceptions about changes in their awareness and skills as a result of participation in the intervention programme

As before, girls who participated in the intervention programme were asked whether their awareness of

sexual and reproductive health matters and of girls' rights had increased, and whether they perceived they had learned a new skill as a result of their participation in the programme. As seen in Table 5.6, 85 percent of girls reported that they had become better informed on several issues relating to sexual and reproductive health, 64 percent reported that they were better informed about their rights and 95 percent of girls reported that they had learned a new skill. Again, many more regular than irregular participants perceived such increases in awareness. For example,

Table 5.6:

Adolescent girls' perceptions about changes in their awareness and skills as a result of participation in the intervention programme, by extent of participation

Perceptions of change in agency as a result of participation in the programme (%)	Extent of participation		
	All intervention participants (N=390) ¹	Irregular intervention participants (N=133)	Regular intervention participants (N=257)
Better informed about sexual and reproductive health issues	85.1	61.6	97.3
Better informed about girls' rights	64.1	26.3	83.7
Learned a new skill	95.4	87.2	99.6

¹ Includes all intervention participants for whom endline data were available.

while almost all regular participants reported that they had learned a new skill and were better informed about sexual and reproductive health matters, 87 percent and 62 percent, respectively, of irregular participants so reported. Differences were wider in the case of awareness of rights: while 84 percent of regular participants perceived that they were better informed about their rights, just 26 percent of irregular participants so perceived.

Effects of exposure to the intervention programme on girls' communication with parents

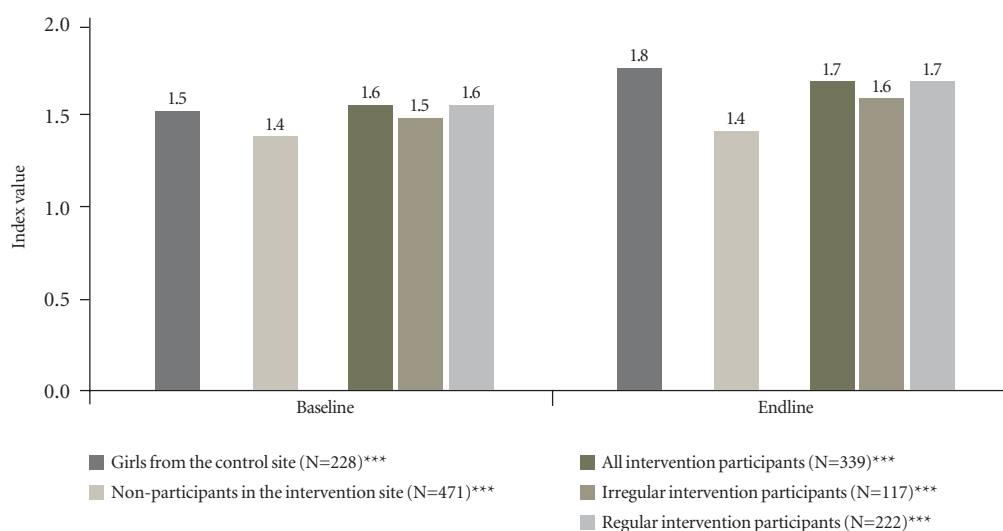
As seen in Chapter 3, the *Choose a Future!* curriculum included a considerable focus on enhancing girls' communication skills in general; it did not include a specific focus on intra-family communication. Earlier in this chapter we observed that the self-efficacy and communication skills of girls who participated regularly in the programme had indeed increased relative to other groups. We now explore the extent to which exposure to the programme enhanced girls' communication with their parents, using indexes developed in Chapter 2 that summed girls' responses relating to communication with one or both parents on general topics (school performance and

friendships), on the one hand, and sexual and reproductive health matters (growing up, adolescent body changes, reproductive processes and contraception) on the other.

Figures 5.7 and 5.8 present these two indexes at baseline and endline for girls from the intervention and control sites. Findings suggest little change in parent-daughter communication on general topics but considerable change in communication on sexual and reproductive health matters over the two-year period between the baseline and the endline interview. Results indicate, moreover, that communication on sexual and reproductive health matters increased somewhat more sharply among all those who participated in the intervention programme (0.6 to 1.8) than among girls in the control site (0.8 to 1.8) and girls in the intervention site who did not participate in the programme (0.6 to 1.7). Of note is the finding that the improvement in parent-daughter communication was sharpest among those who attended intervention activities regularly (from 0.6 to 1.9).

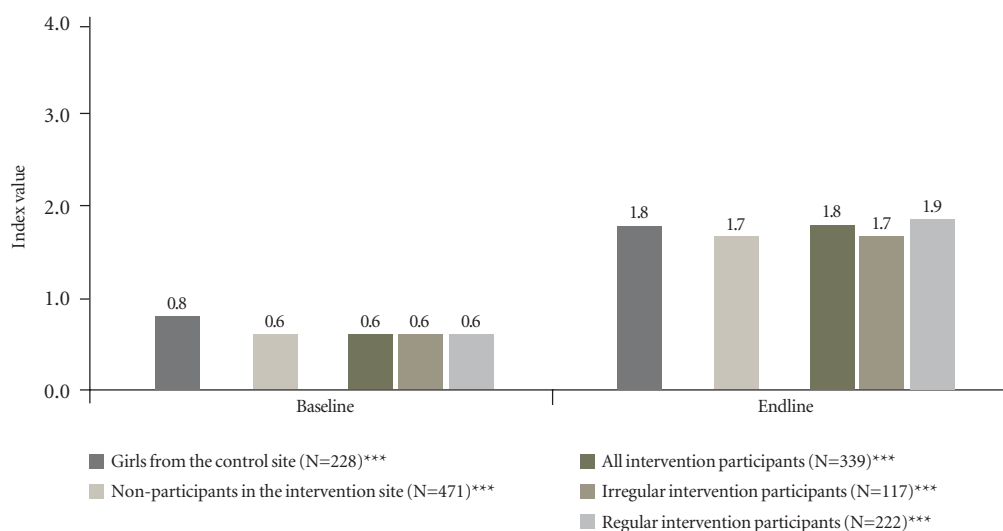
Findings of the DiD model, presented in Table 5.7, indicate that the extent of change with regard to parent-daughter communication differed according to

Figure 5.7:
Index of parent-daughter communication on general issues, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

Figure 5.8:
Index of parent-daughter communication on sexual and reproductive health issues, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

Table 5.7:

Effects of exposure to the intervention programme on adolescent girls' communication with parents: Difference-in-differences estimators

Indicator	Girls from the control site (N=228)	All intervention participants (N=339)		Regular intervention participants (N=222)	
	Change ¹	Change ¹	Impact of intervention (DiD estimate) ²	Change ¹	Impact of intervention (DiD estimate) ²
Index of communication on general issues	0.24	0.12	-0.12* (0.06)	0.13	-0.12 (0.07)
Index of communication on sexual and reproductive health issues	1.01	1.19	0.18* (0.09)	1.23	0.22** (0.09)

Notes: Values in brackets are standard errors.

T-test for DiD estimate > 0 is significant at: + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

¹ Endline value minus baseline value.

² Change among intervention participants minus change among girls in the control site.

the topic. For example, change in parent-daughter communication on general topics was mildly but significantly greater among girls in the control group than those in the intervention group, suggesting that participation in the intervention did not succeed in improving communication on these matters. In contrast, change in communication on sexual and reproductive health matters was significantly greater among those exposed to the intervention, and specifically those who attended intervention activities regularly, than among girls in the control site. Specifically, findings may be interpreted to imply that about 15 percent of the change in parent-daughter communication on sexual and reproductive health matters reported by all girls who participated in the intervention can be attributed to the programme.

Summary

Findings indicate that participation in the intervention did indeed have a positive and significant net effect on girls' lives, even after accounting for secular changes and changes due to other external factors in both the control and intervention sites. Participation in the intervention improved girls' agency, that is, their involvement in decision-making, mobility, sense of self-efficacy and access to economic resources; it succeeded in making girls' gender role attitudes more egalitarian and contributed to significant improvements in girls' awareness of various sexual and reproductive health matters. Evidence of programme effectiveness also comes from girls' own assessments of the ways in which participation in the programme improved the extent to which they exercised choices in their lives. What is evident however, is that significant changes accrued to girls who participated regularly in the programme, and not necessarily to those whose participation was irregular.

CHAPTER 6

Effects of the intervention programme on age at marriage

The intervention programme aimed to influence, in the longer term, age at marriage and marriage-related decision-making among adolescent girls. Pre-marital exposure to life skills education and training in a livelihoods skill was expected to build girls' awareness of the minimum legal age at marriage, enhance girls' preferred age at marriage and their ability to negotiate a delay in their marriage, and provide them realistic income-generating alternatives to early marriage. While it is clear that the longer-term effects of the intervention cannot be evident within a year of completing the programme, nevertheless in this chapter we present suggestive findings on the extent to which marriage was delayed among intervention participants.

Methodology

Our project explored delayed marriage in several ways. First, in order to assess whether marriage age preferences had changed over the intervention period, girls from the intervention and control sites were asked at baseline and endline about the age by which they wished to be married. Second, we made an attempt to assess, on the basis of endline data only, differences in percentages married among girls in the control and intervention sites. Finally, in order to obtain an idea of change over time, questions were posed as part of the household roster, at baseline, that inquired about the age at marriage of all women aged up to 29 years at interview. We compare here the age at marriage of all married girls aged 15–19 at the time of the baseline interview with the age at marriage of girls

interviewed at baseline who had married in the intervening period. While we acknowledge that these two groups are not strictly comparable, the changes observed in this exercise are illustrative of the extent to which participation in the intervention influenced marriage age.

Girls' preferred age at marriage

Figure 6.1 presents the percentage of girls from the intervention and control sites who expressed a preference to delay marriage beyond adolescence (that is, after age 19) at baseline and endline. For those in the intervention site, values are presented separately for those who attended intervention activities regularly and irregularly, and those we did not participate in the intervention. Findings confirm that preferred age at marriage increased considerably over the two-year period between the baseline and the endline interview for all girls: the percentages of girls preferring to delay marriage beyond adolescence increased from 48–55 percent at the time of the baseline interview to 62–75 percent at the time of the endline interview. Results suggest, moreover, that the increase was somewhat sharper among intervention participants (53% to 72%, or 19 percentage points for all intervention participants, and from 55% to 75% or 20 percentage points among regular intervention participants) than girls in the control site (54% to 64%, or by 10 percentage points) and non-participants in the intervention site (53% to 62%, or by 9 percentage points). Findings of the DiD model (not shown in tabular form) confirm that the increase in percentages

of girls wishing to delay marriage beyond adolescence was significantly greater among intervention participants, irrespective of whether they attended intervention activities regularly or irregularly, than among girls in the control site. Specifically, these findings may be interpreted to suggest that among all intervention participants, 9 of the 19 percentage point increase (or 47%) in the preference to delay marriage beyond adolescence was attributable to the intervention.

In the course of in-depth interviews, several girls discussed their role in negotiating with their parents a delay in their engagement or marriage. Almost all these girls were regular intervention participants. For example:

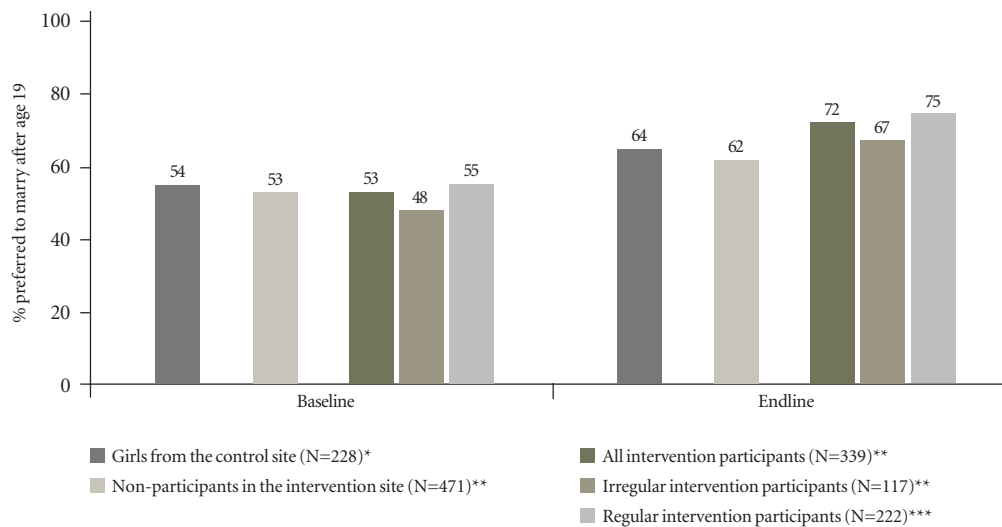
Earlier they [parents] would discuss my marriage but I told them I am too young, and if a girl gets married when she is young, she becomes weak. I said that a girl should be 19 years and a boy

should be 21 years, only then should they be married. [Age 15, regular participant]

We were told [at the centre] that if a girl gets married at an early age, she will have a child soon and her responsibilities will increase. It is good if one can become something after completing one's studies.... My parents say that as I'm learning something [at the centre], they will not get me married so early. [Age 15, regular participant]

They [parents] say that they will not get me married soon; and that only when I complete my studies will they fix my marriage—at the age of 20, 21 or 22. I also think the right age for marriage is 22 years. The final decision should be mine. While I think that I should marry according to my parents' wishes, if they say that they would like me to marry now, I will say that my marriage should be fixed when I become something after completing my studies, and at the

Figure 6.1:
Percentage of adolescent girls expressing a preference to delay marriage beyond adolescence, baseline and endline surveys



Note: Differences significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

age of at least 22 years, and they will agree. [Age 17, regular participant]

Percentage of girls married

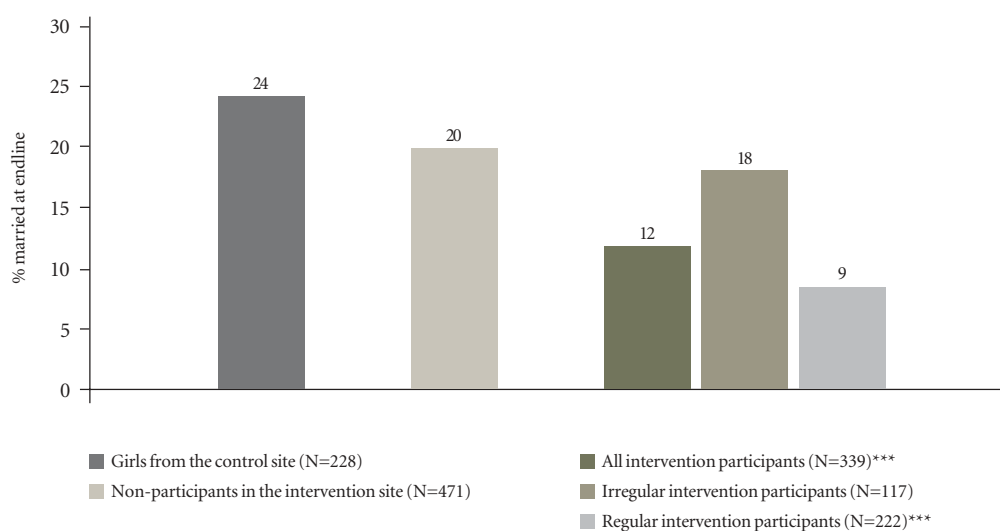
As mentioned earlier, efforts were made to track all those girls who were interviewed at the time of the baseline survey, irrespective of whether they had married or migrated out of the project sites. In total, some 232 of 255 girls who had reportedly married and moved away were followed up and interviewed. Those lost to follow-up included, by and large, those who had migrated to distant places to which it was not possible for our interviewer team to reach; the percentages thus lost were about equal in the intervention and control sites.

As discussed in Chapter 2, data obtained in the household roster in the course of the baseline survey suggest that of the female population aged 15–19, a total of 19 percent and 25 percent of those residing in the intervention and control sites, respectively, were already

married (see Table 2.1). Correspondingly, data obtained from interviews with adolescents at the time of the endline survey or in the case of those who had married and could not be followed up, from monitoring data suggests that of girls interviewed at baseline, 24 percent from the control site and 17 percent from the intervention site had married during the period between the baseline and endline surveys. While the baseline and endline measures are not entirely comparable (for example, the first includes both girls born into the village as well as those married into the village, the second is restricted to those born into the village), they suggest that changes in proportions married have been negligible or modest at best.

However, as seen in Figure 6.2, the percentage of girls married in the intervention site differed widely among those who had participated regularly and irregularly in intervention activities: while just 9 percent of the former had married in the intervening period, some 18 percent of the latter had done so.

Figure 6.2:
Percentage of adolescent girls who were married at the time of the endline interview



Note: Differences between the control group and the intervention groups are significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

Overall, just 12 percent of those who had participated in the intervention programme had married during the intervening period.

Mean age at marriage

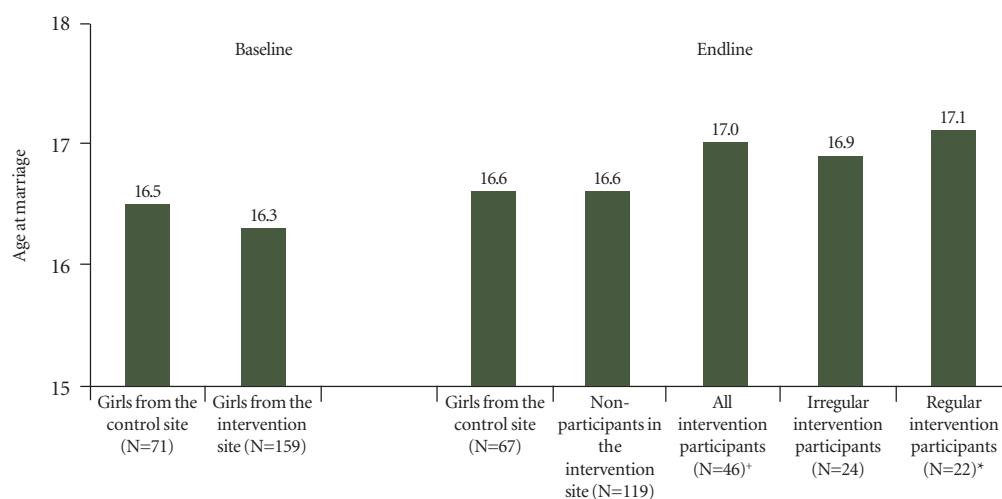
While not entirely comparable, the available evidence suggests a moderate increase in mean age at marriage among girls who reported that they were married at the time of the endline interview compared with household level information on age at marriage of married girls aged 15–19 residing in the intervention and control sites at the time of the baseline survey (see Figure 6.3).

Findings suggest that there was no significant change in age at marriage among girls in the control group and non-participants in the intervention site, whereas a notable increase in age at marriage was observed among the intervention participants, irrespective of the regularity of their attendance in intervention activities. Indeed, findings also show that

intervention participants who married did so significantly later, that is, at age 17.0, as compared to girls in the control group (at age 16.6). The finding that age at marriage did not significantly change among non-participants in the intervention site provides additional evidence of the positive effect of the intervention on age at marriage.

A small minority of girls—a total of just 42—who had married in the period between the baseline and endline surveys also reported at least one birth. While numbers are extremely small and therefore must be interpreted with caution, it is possible to compare age at first birth among girls aged 15–19 as drawn from household rosters at the time of the baseline survey with that reported by the 42 girls who experienced pregnancy in the period between the two surveys. Findings indicate that, at the time of the baseline survey, age at first birth among these girls was 16.4 in the intervention site and 16.5 in the control site; at endline, age at first birth among girls who got

Figure 6.3:
Mean age at marriage among married girls aged 15–19 at baseline and endline



Notes: Baseline figures based on household data; endline figures based on individual level data.
Difference significant at + $p \leq 0.10$, * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

married during the intervention period and had at least one birth by the time of the endline survey was almost identical in the control site (16.6) and about half a year later in the intervention site (17.0).

Summary

In short, findings confirm that the intervention programme was indeed effectively able to influence preferred age at marriage among programme participants. With regard to the timing of marriage, findings suggest that the percentage of 15–19 year-olds who were married did not decline significantly

during the two-year period between the base- and the endline investigations, but that among those who married, age at marriage increased modestly among those who participated in the intervention, compared to no significant change among either girls from the control site or non-participants from the intervention site. Findings suggest then that the intervention may have been successful not only in enhancing girls' preferred age at marriage, but also in putting this preference into effect, perhaps because of girls' enhanced ability to negotiate life decisions for themselves.

Summary and conclusions

This chapter summarises the major findings of the project with regard to the acceptability and effectiveness of the Better Life Options model, which is intended to empower adolescents and address their vulnerabilities. The chapter also highlights lessons learnt for programme implementation, sustainability and up-scaling.

Summary

This project was undertaken to assess the extent to which one promising and extensively used life skills education programme—the Better Life Options programme for adolescent girls in India developed by CEDPA and implemented by, among others, Prerana, a Delhi-based NGO—succeeded in empowering adolescent girls and addressing their vulnerabilities. In particular, the project sought to assess the extent to which participation in the intervention programme enhanced girls' awareness of sexual and reproductive health matters; improved agency in terms of mobility, decision-making, sense of self-efficacy and access to resources; fostered egalitarian gender role attitudes; developed vocational skills and future work aspirations; and succeeded in delaying marriage and first pregnancy. It also sought to explore girls' engagement in various aspects of the intervention programme, notably livelihood skills building as well as to assess the acceptability of the model for adolescent girls.

The intervention programme was delivered over a period of 6–9 months among unmarried adolescent girls aged 13–17 in one block (Malihabad) of rural Lucknow district of Uttar Pradesh. The intervention

programme included several components—the establishment of groups, which provided girls a safe space to meet and interact regularly; the implementation of a life skills education curriculum that focused on developing girls' agency, fostering egalitarian gender role attitudes, and raising their awareness of health matters, particularly of sexual and reproductive health and rights; and the implementation of a livelihood skills training component. Programme implementation was accompanied by a strong monitoring component.

A quasi-experimental research design was used to evaluate the effectiveness of the intervention programme. Baseline surveys were conducted among all unmarried girls aged 13–17 residing in intervention site and an ideally matched control site (Maal block) prior to the implementation of the intervention programme. In addition, 9–15 months following the intervention, we conducted a panel survey of all girls enumerated during the baseline survey, irrespective of whether or not they had been interviewed at the time. All available girls residing in the intervention and control sites were interviewed (with a response rate of over 80%), and following baseline their availability tracked every six months to minimise loss to follow up at the time of the endline survey. Indeed, follow-up rates at endline were excellent (over 90%) in both the sites. A total of 1,038 girls were interviewed in both the baseline and endline surveys, and a total of 390 girls aged 13–17 (roughly two-fifths of all unmarried girls in this age group residing in the intervention site) were enrolled in the programme.

Programme acceptability

Enrolling girls in the intervention programme was in itself a significant accomplishment in this setting where girls lack freedom of movement and opportunities to interact with their peers, and are closely monitored by their parents and families. Indeed, one of the first tasks of programme staff and group animators was to inform girls and their communities about the programme and encourage parents to permit their daughters to enrol in the programme.

It was clear that the opportunity provided by the intervention programme to learn a new skill was a key factor motivating girls to enrol in the programme; this was also the main factor motivating parents—leading decision-makers—to permit their daughters to participate in the intervention. However, girls and families recognised the group as providing a legitimate and safe space for girls to meet and interact with peers: indeed, half of the girls who had enrolled in the programme noted that the group was the only place outside the home that they were allowed to visit.

Girls' perceptions about the quality of the intervention programme, drawn from both qualitative and survey data, suggest that the model was indeed acceptable. Large proportions reported, for example, that sessions were held regularly, that the quality of teaching was good and that animators were able to respond to girls' concerns. Indeed, many adolescents admitted that this was the first time somebody had talked to them about such topics as self-image, marriage and parenthood, rights, future planning or issues related to girls' health. In addition, large proportions also found the vocational skills building component effective; girls reported that trainers were skilled, provided them sufficient opportunities to practise their skills and built their confidence about using the skills independently.

Programme effectiveness

Programme effectiveness was assessed through girls' responses, drawn from baseline and endline matched sample data, as well as from participants' own experiences and narratives.

- Agency, attitudes and awareness

Three key programme objectives were to enhance girls' agency, their expression of egalitarian gender role attitudes, and their awareness of sexual and reproductive health matters. Findings indicate that participation in the intervention programme did indeed have a positive and significant net effect on girls' lives, even after accounting for secular changes in both the control and intervention sites. For example, participation in the programme improved girls' agency—namely, their ability to take independent decisions, mobility, sense of self-efficacy and access to economic resources—beyond what would be expected in the absence of participation in the intervention. Likewise, participation in the intervention succeeded in making girls' gender role attitudes significantly more egalitarian and contributed to significant improvements in girls' awareness of various sexual and reproductive health matters (including the legal minimum age at marriage, sex- and pregnancy-related issues, contraception, HIV and other STIs) and particularly their in-depth awareness of these matters. And while not an objective of the programme, participation in the intervention also succeeded in enabling communication on sexual and reproductive health matters between girls and their parents. Findings reiterate that the positive net effect of the intervention on agency, attitudes and awareness was, by and large, much greater among regular intervention participants—that is, girls who attended half or more of the sessions—than among irregular intervention participants.

Evidence of the effectiveness of the programme also comes from girls' own assessments in the endline survey and post-intervention in-depth interviews. The large majority of girls highlighted the ways in which participation in the intervention programme had enhanced their agency and sense of self-efficacy, and many noted the importance of group membership in providing opportunities to meet and interact with their peers, and more generally, to overcome their social isolation.

- **Livelihood skills training**

A large proportion of girls did indeed gain a livelihood skill. Moreover, about two-thirds reported that they were able to use their skill independently or with a little help; and amongst those who had ever used the skill, almost all reported that they intended to use the skill to generate an income for themselves in the future.

- **Marriage-related preferences and experiences**

The intervention aimed to change girls' perceptions about the timing of marriage, and in the longer run, to delay marriage and first pregnancy. As the observation period of two years inhibited us from following up girls over a longer period of time, findings relating to these longer term goals could not be measured in their entirety. Nevertheless, while findings are somewhat suggestive, they have been included to show early trends in these behaviours that may be attributed to the intervention.

Findings confirm that the intervention programme was indeed effectively able to influence preferred age at marriage among participants, as indicated by the positive net increase in the proportion wishing to marry after adolescence. With regard to the timing of marriage, findings are suggestive but encouraging. For example, the percentage of 15–19 year-olds who were married did not decline

significantly during the two-year period between the baseline survey (using household data) and the endline survey (using individual level data on girls aged 15–19 who were residing in the intervention and control sites at the time of the baseline survey).

However, among those who married, age at marriage increased modestly, by 5–6 months, among those who participated in the intervention programme compared to no change among girls from the control site or non-participants from the intervention site. Findings suggest that the intervention programme may have been successful not only in enhancing girls' preferred age at marriage, but also in putting this preference into effect, perhaps because of girls' enhanced ability to negotiate life decisions for themselves.

Qualifying programme effectiveness

These impressive achievements must, however, be qualified and we acknowledge several concerns arising from our assessment. First, we acknowledge that intervention participants were not representative of girls in the community more generally. Our findings suggest that the programme did not reach the most socially and economically vulnerable girls in the intervention site; indeed, a comparison of key socio-demographic characteristics of intervention participants and non-participants from the intervention site as available from the baseline assessment reveals that girls who enrolled in the programme were better off on several indicators than girls who had not enrolled. Therefore, the potential effectiveness of the programme in influencing the lives of girls in the community more generally remains unclear.

Second, our findings stress the importance of regular participation in programme activities. Indeed, the positive net effect of exposure to the intervention programme on agency, attitudes and awareness was,

by and large, much greater among girls who attended the programme regularly than among irregular programme participants. However, regular participation was achieved by just three-fifths of all intervention participants, raising questions about the ability of the programme to influence outcomes for girls more generally.

We acknowledge additional concerns that may have detracted from the overall impact of participation in the intervention programme. For one, the intervention programme focused almost entirely on girls themselves rather than on their families and communities, which would have required a considerable time investment and was beyond the scope of the project. Indeed, the fact that parents were not engaged on a regular basis with project activities or involved in their daughters' accomplishments may have had implications for girls' regular participation in the intervention programme. Second, while the project enabled girls to acquire a vocational skill, it was not adequately equipped to support its alumnae to use that skill or generate an income from it, thus stopping short of enabling girls to make an effective transition into work roles.

Research shortcomings must also be noted. The short period of observation—two years—inhibited the project from exploring the longer-term effects of exposure to the programme, for example, with regard to income generation and control over resources, as well as marriage-related decision-making and the timing of marriage and pregnancy amongst all the intervention participants.

In addition, we acknowledge the possibility of a social desirability bias in the responses of programme participants, namely that they may have been better aware than non-participants of the objectives of the

intervention programme and therefore more likely to provide responses that validated these aims, particularly with regard to measures of agency and gender role attitudes.

Recommendations

Several lessons can be drawn from the experience of implementing the Better Life Options model that are relevant for programmes intended to empower adolescent girls.

Adopt measures to reach the most vulnerable

Findings concerning the selectivity of intervention participants and the relative exclusion of the poorer and less educated segments of girls in the communities in which the programme was offered suggest the need to explore ways of reaching the most vulnerable. For example, programme timings may not have suited poor working girls, programme content may not have been perceived as useful or efforts by animators—local women from the community—to motivate participation may not have been sufficient to convince vulnerable girls and their families about the importance of the programme for girls' futures. There is a need, therefore, to better understand the reasons underlying poor and vulnerable girls' exclusion and to make special efforts to attract these girls to enrol and complete the programme.

Take steps to ensure regular attendance

Findings that it was regular rather than sporadic attendance in the intervention programme that influenced girls' lives, combined with the fact that only about two-thirds of participants attended half or more sessions, call for measures that enable girls to attend the programme regularly. For example, given that household chores and other time commitments

inhibited many girls from attending the intervention programme regularly, the programme would need to be more flexible in setting session timings and make appropriate adjustments to be more inclusive to accommodate in-school, out-of-school and working girls. In order to enhance regular attendance, efforts should also be made to follow up with parents of girls who had attended the intervention irregularly and address the constraints these girls faced in participating in the programme.

Involve parents more directly in programme activities

Prior to the implementation of the intervention programme, considerable efforts were made to inform parents and communities about the intervention, invite parents to enrol their daughters in the programme and allay parental concerns, if any, about their daughter's participation in the programme. However, once the programme was initiated, interaction with parents became far more limited and the focus shifted exclusively to girls. These findings call for efforts to involve parents, perhaps in the equivalent of parent-teacher activities conducted in school settings. For example, parents should be informed from time to time of their daughter's progress and achievements. Parents should be involved in formulating strategies that would enable their daughters to use the skills learned to generate an income. Moreover, parents should be encouraged to take on a greater role in facilitating alumnae groups. Efforts should also be made to enable parents to shed traditional attitudes—including with regard to early marriage—and recognise the potential of their daughters.

Establish links between livelihood skills building programmes and access to income-generating opportunities

Although the livelihood skills building component of the intervention was a key factor encouraging enrolment in the programme, many girls who completed the course reported that they were not confident about using the skill independently; indeed, most girls had not used the skill following completion of the course. Measures are needed that enable girls to bridge this schism between successful completion of the programme and independent use of the skill: for example, alumnae groups could enable girls to hone their skills. Efforts must also be made to link girls with potential market and small business opportunities through existing channels, such as self-help groups.

Initiate savings programmes for girls

Exposure to the intervention programme succeeded in developing a savings orientation among girls. What is needed are efforts that enable girls to access formal savings mechanisms, such as bank and post office savings accounts, on the one hand, and provide girls support in operating these accounts, on the other.

Take steps to ensure programme sustainability in rural areas

Community ownership and implementation of the intervention programme is essential for programme sustainability and steps need to be taken that enable communities to continue the programme with minimal external involvement. Prerana has considerable experience from its work in peri-urban slums that suggests that a cadre of new animators can

be developed—often programme alumnae—and trained with inputs from Prerana. Animators then charge a nominal fee from girls for participation in the programme. These efforts have ensured that new waves of girls also benefit from the Better Life Options model. It has been found that this fee-based model is acceptable and local animators, once trained, are able and motivated to train new waves of girls.

The extent to which this peri-urban model can be replicated in rural settings needs to be assessed. The project experience in rural Lucknow suggests that communities were open to the programme and valued many of its goals (notably, the vocational skills training component). However, some challenges were evident in this setting, including the paucity of educated young women who were willing to be trained as animators and form their own groups of girls. Therefore, in order to implement intervention programmes in rural areas, special efforts must be made to identify and train potential animators and mentor them in the delivery of the programme.

Need for longer duration follow-up

While the evaluation has captured short-term changes in girls' lives, it has not been possible to assess longer-term changes because of the relatively short duration of the project. Longer-term follow-up assessments of girls are needed that enable a better understanding of the influence of participation in the intervention programme on the various transitions girls make to adulthood—work, marriage, parenting and so on—as well as their agency as they make these transitions.

In short, our findings confirm that the provision of a well-structured life skills education programme, such as the Better Life Options model that offers girls training in a livelihood skill while exposing them to new ideas about their roles, is indeed a promising approach for empowering adolescent girls in rural India. A range of outcomes were attributable to participation in the intervention programme. For example, participation enhanced girls' agency, fostered egalitarian gender role attitudes and increased awareness of sexual and reproductive health matters. It also enabled girls to break out of their social isolation and gain a skill with income generating potential. Participation also influenced girls' attitudes towards delaying marriage, and there is a suggestion that it may have also succeeded in delaying marriage among intervention participants. Equally important is the fact that the model was feasible to implement and was acceptable to many girls and their families.

More generally, questions still remain, however, about the extent to which life skills education models can effectively be implemented in out-of-school settings in rural areas. Findings suggest that the positive changes described above were not observed across the board—they were observed largely among girls who participated regularly in the programme, and not necessarily the larger group of girls whose exposure to the programme was more sporadic or the most vulnerable among whom relatively small proportions participated in the programme. Our findings have pointed to the myriad of conditions that must be addressed in rural settings in order for such a programme to make a universal mark among girls.

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APPENDIX 1

Construction of the wealth index

The wealth index was constructed by allocating the following scores to a household's reported assets or amenities:

Type of house:	2 for <i>pucca</i> ; 1 for semi- <i>pucca</i> ; 0 for <i>kachcha</i>
Agricultural land owned:	2 if the household owns some land; 0 for no land
Shop or business owned:	1 if the household owns a shop or a business; 0 for none
Access to toilet facility:	4 for own flush toilet; 2 for shared flush toilet or own pit toilet; 1 for shared pit toilet or other types of toilet; 0 for no toilet facility
Cooking fuel used:	2 for liquid petroleum gas, electricity or bio-gas; 1 for kerosene, wood, crop residue, dung cakes, coal or charcoal; 0 for other types of cooking fuel, for example, straw, shrubs or grass
Access to drinking water facility:	4 for own piped water, hand-pump or covered well; 3 for own open well; 2 for public or shared piped water, hand-pump or covered well; 1 for public or shared open well; 0 for other sources of drinking water, for example, surface water, tanker/truck or rainwater
Access to electricity:	3 for electricity; 0 for no electricity
Ownership of household assets:	4 for car or truck; 3 each for motorcycle or scooter, refrigerator, computer/laptop, telephone (landline or mobile), colour television; 2 each for bicycle, electric fan, radio or transistor, black and white television, sewing machine, water pump, animal-drawn cart; 1 for watch or clock; 0 for each of the above items that the household does not possess.

APPENDIX 2

Background characteristics of adolescent girls from the control and intervention sites

Background characteristics	Girls from the control site (N = 228)	Intervention site			
		Non-participants in the intervention site (N = 471)	All intervention participants (N = 339)	Irregular intervention participants (N = 117)	Regular intervention participants (N = 222)
Hindu (%)	97.4	84.5***	91.7**	94.0	90.5**
Scheduled caste (%)	53.5	51.6	49.6	53.9	47.3
Household standard of living (mean)	16.3	15.1	16.7	15.1	17.6
Age (mean)	14.7	14.7	14.6	14.5	14.7
Number of years of schooling (mean)	6.4	5.6***	6.6	6.0	6.9*
Currently in school (%)	70.6	52.2***	71.9	65.8	75.2
Currently working (%)	56.6	56.9	58.4	59.8	57.7

Note: Differences between the control group and groups in the intervention site are statistically significant at * $p \leq 0.05$, ** $p \leq 0.01$ and *** $p \leq 0.001$.

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