Are young women in India prepared to deal with SRH issues?

A Case Study of Jharkhand, India

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الإتحاد الدولي للدراسات العلمية للسكان

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ABSTRACT

Are young women in India prepared to deal with SRH issues? : A case study of Jharkhand, India

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Background: Young women often face social, economic, logistical, policy and health system barriers to access to sexual and reproductive health services, including safe abortion care.

Method: An OR project was launched in Jharkhand to assess the strategy of using youth leaders to link young women to SRH services, including safe abortion. Using a quasi-experimental longitudinal design, a baseline household survey was conducted in July-August 2012. We interviewed 1,381 young women (15-24 years) to assess their knowledge, agency, and skills on SRH issues and to identify barriers and influencers that lead to particular behaviors, decisions, or service utilization.

Results: Even with high levels of literacy (66%-91%) and mass media exposures (65%-80%), the composite knowledge score of sex and pregnancy- (2.4 of 6), contraception- (2.4 of 8), and abortion- (0.5 of 8) related issues were low. Multivariate analyses revealed age, education, and exposure to SRH information as the influencing attributes of knowledge level. Around 4% of married young women reported experiencing induced abortion; one-third of them had no role decision, while 92% had approached private and illegal providers. This study also accounted limited agency among rural young women in terms of taking decision, freedom of mobility, self-efficacy, and sense of self-worth. Findings of this study have major policy implications and guidance for a youth-focused intervention.

Background

Young women age 15-24 constitute almost 114 million and account for 20 percent of total women population in India. This magnitude not only implies the future strength of India in terms of social and economic development; rather this young cohort will lead demographic stabilization and quality of life in future. It is also clearly evident that the success of the Millennium Development Goals will largely rely on the status of young people (UNDP 2000). Although, modern youth are relatively better educated and exposed to modern technologies of social communications than youth of the past, social vulnerabilities persist with marked influence of gender norms, early interruption of school education, early marriage and pregnancy.

Despite a strong policy on the minimum legal age at marriage, a sizeable proportion of Indian women get married before age 18 and around 17 percent of women in the age group of 15-19 years have begun child-bearing (IIPS & Population Council 2010). Pre-marital and unprotected sexual exposures among youths are also not uncommon (NIMS & NACO 2008; IIPS & Population Council 2010). A recent study on Youth in India in six states found that 12 percent of young men and 3 percent of young women reported pre-marital sexual relations. Although there were no significant variations in reported prevalence of pre-marital sex amongst married and unmarried cohorts, the variations were significant among rural and urban youth; rural youth were more likely to report having experienced pre-marital sex compared to their urban counterparts. For many youths, sexual experiences were uninformed, unsafe, and for some, unwanted, primarily because of lack of sexual and reproductive health awareness and skills in negotiating safe sex and discussing reproductive health matters with their parents and partners.

The scenario however, is not very different for married young women. The median age at first sexual exposure is 17.8 years, and even lower among women with no education and from the poorest economic strata (16.4 years). With lack of correct awareness on contraception and social pressure of proving fertility, 30 percent of women in India give birth before age 18 and 53 percent by age 20 (IIPS & Macro 2007). Almost one-fifth of these pregnancies that resulted in live births were unplanned (IIPS & Macro 2007). A portion of these unintended pregnancies also resulted in termination of pregnancy (induced abortion). While evidence of unintended pregnancies and abortion among youths are limited in India, there are a few community-based studies which infer almost 41% of all abortions occurred to young women (Banerjee et al 2013).

Evidence also suggests that young women, and more specifically young unmarried women, often face social, economic, logistical, policy and health system barriers to accessing to SRH services, including safe abortion. Pregnancy and motherhood outside of marriage are stigmatized in many societies, which may cause unmarried pregnant women to seek abortion. As a result, young women often approach unskilled and illegal providers and face postabortion complications (Banerjee et al 2009), seek out abortion care later in the pregnancy (Finer et al. 2006; Aras, Pai, and Jain 1987) and are more likely to delay seeking

help for abortion-related complications than adults (WHO et al. 2006). Adolescent girls (10-19) in developing countries undergo 2.2 to 4 million unsafe abortions every year (WHO 2004) and globally, account for 70 percent of all hospitalizations from unsafe abortion (Plan 2007). These often lead to mortality and prolonged morbidity due to unsafe abortions. As estimated by WHO (2004) young women account for approximately 46 percent of unsafe abortion related deaths every year.

In India, there is no statistical evidence on cause-specific maternal mortality by age, but it is evident from the recent SRS release (RGI 2011) that young women (15-24) account for 45 percent of total maternal deaths in India. Unsafe abortion alone accounts 8-10 percent of maternal deaths. This may be even higher among young women.

Most of these complications and deaths can easily be prevented with improved sexual and reproductive health (SRH) information and care, including safe abortion. Unfortunately, even with developments in every sector, young women are not uniformly aware of sexuality, pregnancy, contraception and abortion related issues. Communication campaigns intended to address reproductive health issues either fail to include issues around unsafe abortion (Banerjee et. al 2010) or missed the opportunity to target young women. A recent post-campaign evaluation in Bihar and Jharkhand has revealed that youth are apprehensive and unlikely to discuss sensitive SRH issues including abortion with older counterparts who are perceived to have and often demonstrate stigmatizing attitudes about youth sexuality (Banerjee et.al 2012).

Studies have also shown poor agency among youths (Jejeebhoy et al. 2010) which often influence young people's sexual and reproductive lives in terms of enabling youth to exercise their choice and say in the timing of marriage and choice of partner, to make health-related decisions, to access health services and to exercise informed choices about whether and when to engage in sexual relations and contraception (Jejeebhoy and Halli 2005).

One way to address the gap between awareness on SRH issues and service availability and utilization is through youth-focused interventions. The rationale behind youth focused interventions is to promote awareness and healthy behaviors; by creating a supportive environment, young women will be able to act on these health-promoting behaviors. Another aim of such interventions to is to increase self-efficacy to engage in these health-promoting behaviors (Strecher et. al 1986). Though behavior change communication (BCC) interventions have successfully been used in India to increase knowledge of contraceptive use, immunization and HIV/AIDS [Sood et al 2006; Daniel et al 2008], they have rarely been used to address awareness of young women on SRH issues.

Hence, realizing these gaps, it was decided to pilot a youth-focused intervention to specifically address the information and service delivery needs of young women on various SRH issues including legal and safe abortion. With support from the state government of Jharkhand, this youth intervention is proposed in two selected rural blocks of Deogarh and Giridih districts.

To design effective interventions, it is imperative to understand what enabling resources are in place from the perspective of young women (15-24). This includes an understanding of the characteristics of young women who use or seek access to existing information and services, their needs, and an understanding of the dynamics of their health seeking behavior and decision-making processes related to sexual and reproductive health and abortion. The purpose of this study is to develop an evidence base for understanding the accessibility of SRH and safe abortion services in selected two blocks of Jharkhand, India from the perspective of rural young women.

With this backdrop this youth focused research is aimed to address the following research questions:

1. What are the socio-demographic, economic, and reproductive characteristics of young women in selected blocks of Jharkhand?
2. To what extent are young women in Jharkhand exposed to mass media and other sources of information? What sources of information do they typically rely on for different types of issues?
3. What SRH-related knowledge, perceptions and practices characterize these young women? And which socio-economic and demographic attributes influence their knowledge of SRH related issues?
4. What are the levels of agency among young women in terms of freedom of mobility, decision making, sense of self-worth and access to money?

Rationale for the study

In India there is a need for focusing sexual reproductive health of youth to ensure that they have access to SRH information and care in their communities that are effective and appropriate for them (Ipas 2011). Recognizing this importance, several national policies and programs, including the National Youth Policy 2003 (MOYAS 2003), National Population Policy 2000 (MOHFW), and Adolescent Reproductive Health Strategy (MOHFW 2006) have emphasized specific strategies and direction to address the needs of youth in India. However, implementations of these policies and strategies have not yet gained any momentum in India and primarily because of lack of evidence on the need of youth and effective strategies to address those needs (IIPS & Population Council 2010).

Evidence from other countries shows that improved awareness, information, self-efficacy and care can empower youth to move towards positive behavior change. Young people are the main experts of their own lives (Ipas 2011). However, in India, we do not know much about their SRH issues, information need and message formats, and their preferences as well barriers to access available health care services. This intervention in Jharkhand will aim to address those issues and gather evidences through implementation in such a way as to be replicated and scaled-up by government and other partners. If the intervention is found successful, the learning experiences will be made available for future SRH programs in India.

Study Design

This study uses baseline data that were collected as part of a larger effort to develop intervention strategy and evaluate the impact of youth-focused communication intervention that will educate rural young women about SRH issues including safe abortion. To support this larger evaluation effort, which will employ a rigorous pre-post quasi-experimental longitudinal research design, two blocks (Deogarh and Bagodar) were selected for intervention and one for comparison (Madhupur) based on similar socio-demographic characteristics at the population level.

Young women (15-24) were selected from these three blocks using two-stage stratified random sampling. In the first stage, 23 villages from each of the intervention and comparison blocks were selected using probability proportional to size (PPS) sampling (n=46). In the second stage, a detailed household listing was carried out in each selected village to generate separate universe of households with eligible married and unmarried young women. Seventeen households with at least one married young women and another 17 households with unmarried young women were selected using systematic random sampling in each sampled village. Only one eligible respondent was selected per household, and in households with more than one eligible respondent, the Kish table was used to select a study participant.

A total of 1,381 young women (married 690 and unmarried 691) were successfully interviewed. While informed consent was obtained from all participants prior to study enrollment, in case of unmarried young women aged 15-17, consent was also sought from a parent or guardian. To protect the participants' privacy, interviewers requested privacy from other household members who tried to intervene or listen. If privacy could not be ensured, the interview was postponed and rescheduled. The overall response rate for the study was 88% for both married and unmarried young women. This study underwent ethical review and was approved by the Institutional Review Board of the Centre for Media Studies in New Delhi, India and Allendale IRB in the United States.

Two separate questionnaires were developed for married and unmarried young women. Respondents enrolled in the study participated in an interviewer-administered survey that collected data on socio-demographic characteristics, media exposure and social networking, sources of SRH information, health-seeking behaviors, knowledge, and perceptions about SRH issues including abortion and reproductive histories for married women. Married youth reporting an abortion answered an additional module on their last abortion experience. This module included questions about the abortion information she received from providers or other actors, type of abortion provider and procedure received, and any complications experienced. An anonymous reporting approach was applied to ask questions on pre-marital sexual exposure and romantic relations by using sealed envelope. To ensure confidentiality and privacy unique identification number was used to link this response to the individual questionnaire.

Analysis and measures

Descriptive statistics are reported for both categorical and continuous variables. Categorical variables are analyzed using frequencies and percentages. For continuous variables, means and standard deviations are reported. To approximate the economic status of the respondents, a standard of living (SLI) index was developed on the basis of ownership of household durables and assets. Households were assigned a score for each asset, and the scores were summed. A high SLI generally means a higher level of income and the ability to acquire other modern amenities that add to one's comfort (Roy et al, 1999). To assess overall knowledge of young women on SRH issues, three broad categories of knowledge were examined separately, namely "sex and pregnancy", "contraception" and "legal aspects of safe abortion". An additive composite index was created for all three categories based on correct responses across items, providing a mean knowledge score for each individual respondent, ranging from 0 to 6 for knowledge of 'sex and pregnancy', 0 to 8 for 'contraception', and 0-5 for 'abortion'. Thus a higher mean score on any SRH aspect indicates a higher level of knowledge. Multiple linear regression models were employed to determine the factors associated with improved knowledge.

Results

Socio-demographic, economic, and reproductive characteristics

Table 1 presents the socio-demographic characteristics of the study participants. Over half of the rural young women in the combined sample were between the ages of 15 and 17 years. Unmarried women were substantially younger than the married; while 88% young unmarried women were aged 15-17 years, only 21% married youth fell into this age group. This clearly shows a uniform pattern of low age at marriage. As portrayed in Table 1, the mean age at marriage for the young married women was 15.7 years. The standard deviation was estimated very low (1.7), suggesting a customary trends of marriage below the legal age at marriage of 18 years. The majority identified as Hindu (70%) while 29% identified as Muslim. Young women overwhelmingly reported to live in a joint or extended family (married 79%, unmarried 53%). More than three-quarters of the young women belonged to either the Other Backward Classes (68%) or to Scheduled Castes (13%) or Scheduled Tribes[5] (4%).

While the Government of India aimed at universal education for modern youth, schooling was far from universal particularly for married young women. Almost one-third (34%) of married and one-tenth (9%) of unmarried young women had never been to school. Unmarried youth were relatively better educated than the married counterparts, 83% of unmarried youth

[5] Under Article 340_342 of the Indian Constitution, the Government of India (GoI) classifies some of its citizens based on their social and economic conditions. Scheduled Caste, Schedule Tribe and Other Backward Class are the three broad designations for historically disadvantaged caste groups. Scheduled Caste and Scheduled Tribe groups are the most socially and economically disadvantaged groups in India, and the Scheduled Tribes receive the most government support, as they have been farthest removed from mainstream Indian society. The term 'backward class' is a collective term used by the GoI for castes, which are economically and socially disadvantaged (Xaxa 2001).

completed middle school compared to 48% of married young women. Substantial variations were observed among married and unmarried youths in terms of continuation of education. At the time of interview, 5% married and 67% unmarried young women were in school and college. Leading reasons for school discontinuation were early marriage, poverty, and lack of access to an educational facility.

Over 85% of the young women fell into the low and moderate standard of living category; the main source of household income was from owning a farm or from a daily wage (data not shown). Overwhelming majority reported that they did not work for cash or kind in the past year (married 85%, unmarried 95%). Those who entered into any economic activity were mostly engaged in unorganized sector. In contrast, only 5% of young women reported looking for a job.

Media exposure and access to SRH information

Figure 1 reveals that young women were exposed to a variety of media, but that typically, more unmarried than married youth reported media exposure. Exposure to television was reported by 70% of unmarried and 60% of married women. The difference was more pronounced for exposure to newspapers. Likely due to education level, unmarried women were more likely to report exposure to the newspaper (married 21%, unmarried 53%) and radio (married 11%, unmarried 18%). However, young women's exposure to mass media was restricted with infrequent viewership. For example, only 22% of young women watched television regularly. Considering the recent growth of access to computer, internet, and social networking sites among urban youths, we asked whether rural youth had any access to such modern pathways of communications. As portrayed in Figure 1, only one percent of unmarried youth were reported to have access to internet, while social networking and youth clubs had not yet diffused to the rural youth community.

In addition to gathering data on young women's exposure to mass media and other modern devices, this study also examined whether they received any information on SRH issues (e.g., menstruation, puberty, white discharge, pregnancy and RTIs), contraception, and safe abortion and their sources of information for different health issues (Table 2). Almost 90% of married youth and 70% of unmarried youth reported receiving some information on SRH and contraception. When asked about having received messages related to abortion, only 10% of women recalled receiving some information on abortion issues. For information about SRH issues women relied most heavily on family members and relatives (73%-75%), friends and neighbors (75%-82%), and community-level sources, including Accredited Social Health Activists (ASHAs) and Anganwadi workers (AWWs) (22%) and Auxiliary Nurse Midwives (ANMs) (4%). A similar pattern emerged for safe abortion. Among those who were exposed to messages, the sources of information were similar to the findings on family planning and SRH, with most young women relying on their friends and neighbors (73%-75%) for information (Table 2).

Agency among married and unmarried young women

Agency is defined as the ability to exercise strategic life choices through personal competence to exert influence over life matters (Kabeer 2001), including personal health (Jejeebhoy et al 2010). Available literature suggests measuring the agency of young people through the ability to make choices include young people's decision-making capacity, freedom of movement, a sense of self-worth and access to resources (Malhotra, Schuler and Boender 2002). In order to assess young women's involvement in decision making, respondents were asked whether they made the decision on their own, jointly with others or that they had no role in decision making.

Findings presented in Table 3 reveal that irrespective of marital status young rural women almost had no involvement in decision-making on their own health care and choosing a health care provider; 92% married and 99% unmarried women had no say on their own health care, while more than 95% young women reported having no ability to choose any particular health care provider for their own health problem. Since agency is defined as the ability to make "strategic" life choices, like marriage and pregnancy, married respondents were asked about their involvement on deciding the time of pregnancy, while unmarried women were asked whether they can exercise their choice to decide the time of marriage. In response, only 9% married and 3% unmarried women reported their ability to influence any strategic life choices. Young women overwhelmingly (married 71%, unmarried 81%) reported their ability to choose their friends on their own; fewer youths were also involved in making decisions on spending money (married 20%, unmarried 26%) and buying their own clothes (married 13%, unmarried 17%).

To understand the autonomy of young generation to access financial resources, we asked whether they had some deposit in terms of savings account at any bank or post-office or even with in a self-help group deposit scheme. Only six percent young women reported owning a bank account, five percent independently and one percent with someone else.

The second important elements of the capacity to make choices include young people's freedom of movement; this was assessed by asking questions relating to whether young respondents were allowed to visit within and outside the village alone, with someone else or not allowed at all. Figure 2 reveals that young women had some mobility within the village, although young unmarried women had relatively better freedom to visit alone to any places inside the village compared with their married counterpart. For example, while almost half of the unmarried women reported having freedom to visit to a shop (52%) or a friend (46%) inside the village; only 25% of married women had that freedom of mobility. However, the same mobility to any places outside the village was uniformly restricted for all young women irrespective of their marital status.

The third important element of agency was examined through a sense of self-worth or self-efficacy. Here, self-efficacy includes a young women's confidence and ability to negotiate with elders, peers, spouse and medical doctors to share her opinion and discuss her own

reproductive health choices (Banerjee et al. 2012), including expressing opinion, talking to a provider, helping friends to choose a provider, and negotiating with spouse against force sex. As portrayed in Figure 3, these findings suggest that young women were more likely to report low level of self-efficacy in expressing own opinion and in making reproductive decisions, including initiating discussions on SRH issues. For example, almost three-fourth of women found it difficult to express their opinion to elders, while almost 80% young women shared their inability to talk to a health care provider on SRH issues. However, married youths had expressed relatively higher levels of self-efficacy compared to their unmarried counterparts. For example, 31% of young married women reported their ability to initiate discussions with friends on SRH issues as against 20% of unmarried youth. On the other extreme, 65% of young married women expressed their inability to negotiate with their spouse for not to have sex against their willingness.

Awareness of sexual and reproductive health issues

Another important objective of this paper was to explore the extent to which young people were aware of three broad SRH issues related to sex and pregnancy, contraception and abortion. In order to assess young women's knowledge on sex and pregnancy all respondents were asked to share their correct responses on likelihood of getting pregnant: i) at first unprotected sex, ii) only with repeated intercourse iii) if had sex half-way between her periods, iv) if had sex during her periods; v) after kissing or hugging and vi) the aggravated risk of maternal with pregnancy before age 18 years. A summary index has been generated based on the number of correct responses. Findings presented in Table 4, reveal that awareness of sex and pregnancy was extremely limited. However, young married women had relatively better awareness than their unmarried counterparts. For example, on an average married youth had shared correct responses for almost half of the questions (composite score was 2.9 out of 6), while young unmarried youth could not even offer correct responses to two questions (composite score 1.8 out of 6). Young unmarried women were either unsure or unaware of correct responses for all but one question identifying that women can't get pregnant after kissing or hugging. Even 80% of married youth was not aware of the fact that pregnancy can happen at first sex.

Awareness of contraception was assessed in two stages. First young women were asked to report all contraceptive methods about which they heard of (spontaneous and with probe); and second, probed further for specific knowledge of each method they listed at step one. Findings suggest that the vast majority of young women (60%) reported correct awareness on at least one to two methods. However, once again married young women were more likely to report correct awareness on multiple contraceptive methods as against their unmarried counterparts. For example, 63% of married young women reported their correct knowledge for at least three methods. This proportion was only 17% among unmarried youth. The composite index score of 3.0 out of 8 for married youth as against 1.7 for unmarried also reflects this difference.

To assess knowledge on abortion related issues, this study explored young women's perception about: i) legal status of abortion in India; ii) duration of pregnancy up to which abortion is legally allowed in India; iii) legal status of abortion for unmarried women; iv) requirement of consent for young women under 18 years; and v) sources of abortion care services. Findings of this section (table 4) clearly reflect that young women had limited knowledge of abortion related issues (composite score 0.7 and 0.4 out of 6 for married and unmarried young women respectively). Despite the fact that the Indian government passed the Medical Termination of Pregnancy Act in 1971, 55% of young married women and 71% of young unmarried women could not respond to any of the five questions. Surprisingly, 10% of young women erroneously believed that abortion is not legal in India, while 89% expressed their complete ignorance about the subject (data not shown here).

Table 5 shows the results of multiple linear regression models of the factors associated with the young women's knowledge of three broad SRH related issues. Adjusting for other socio-demographic variables young women who were in the age group of 19-24 years had significantly better knowledge of sex and pregnancy (β =0.12; $p< 0.000$) and contraception (β= 0.15; $p<0.000$) as compared to even younger women. Further, young women who were married at the time of survey were more likely to perceive correct knowledge on all three aspects of SRH issues (β=0.39, 0.43, 0.14; $p<0.000$) as compared to unmarried youth. In addition, education of women had played an important role to influence the knowledge level of young rural women, middle and secondary level education had clear edge over no and primary education.

Family composition, caste, religion and working status of young women surprisingly showed no association with the knowledge of sex and pregnancy and contraception. The one exception was knowledge of abortion. In case of the abortion model, young women who are in joint or extended family or work for cash and kind or belong to other religion were significantly less likely to have knowledge on abortion compared to women from nuclear families, housewives, and Hindu religion respectively. Although standard of living had no influence on knowledge of sex and pregnancy, high living standard were positively associated the knowledge of contraceptive (β=0.11, $p< 0.000$) and abortion (β=0.19, $p< 0.000$). Exposure to any SRH information from any sources was found to have strong association with the knowledge level of all three SRH related issues.

Reproductive histories and pregnancy outcome of married young women

As reported in Table 6, 82% of young married women had experienced at least one pregnancy. Those who ever had experienced pregnancy had experienced an average of 2.1 pregnancies and 1.7 live-births. Early pregnancy was prevalent; for example, 53% of young women in the age group of 15-17 years had already experienced at least one pregnancy and this proportion increased to 83% and 97% for women in the age group of 18-20 and 21 & above (data not shown here). The distribution of young women by number of surviving children reveals that 70% of women had at least one surviving child, while 35% reported at least two children and 12% more than three children. Once again age of young women was

positively associated with the number of living children; average number surviving children increased from 1.3 among young women in the age group of 15-17 years to 1.8 and 2.5 among 18-20 and 21-24 years respectively.

Reporting a pregnancy loss was not uncommon. Every fifth young woman had reported experiencing at least one pregnancy loss. Still births were reported by five percent of young women, while spontaneous (miscarriage) and induced abortions were reported by 13% and 3% of young women, respectively (Table 6). Although, we estimated a positive association between age and pregnancy loss, the incidence was even reported by 12% of young married women age 15-17 years.

The contraceptive prevalence was low among young married women who were not pregnant at the time of the survey; only 17% of young women reported using any contraceptive method (Table 6). Surprisingly, female sterilization was reported as the most common method of modern contraception (9%) among young women, followed by condom (2%) and oral contraceptive pills (1.8). Around four percent of young women reported using traditional methods.

Utilization of reproductive and adolescent health care services

To assess the health seeking behavior of young women for different sexual and reproductive health services, this study asked each married respondent to report the type of health care providers and health facilities they visited last time for antenatal care (ANC), delivery care, and RTI related issues. In addition, unmarried young women were asked to report the same for menstrual and other health problems. As reflected in Table 7, an overwhelming majority of young women sought treatment or advice from a private facility (63%, 41%) or provider irrespective of their type of problem and marital status. Another one-third of young married women and two-fifth of unmarried young women had sought services from traditional healer and unqualified rural medical practitioner.

For the subset of women who reported having an induced (n=23) or spontaneous (n=97) abortion prior to the survey, a second interview was conducted on abortion practices for their last abortion (Table 7). The majority (52%) consulted a private doctor or nursing home for terminating pregnancy. A significant portion of these private facilities were not approved to provide safe abortion services. Another 43% of women sought induced abortion services from chemists and rural practitioners who are not legally allowed to provide induced abortion services in India. Alhough abortion services are virtually free at government facilities and sites approved with trained providers, only four percent women reported visiting a government hospital. The care seeking pattern was similar among young women who sought services for spontaneous abortion.

Discussion

The goal of this study was to develop an evidence base to understand the situation and needs of young women's awareness and access to sexual and reproductive health services in Jharkhand, particularly among young rural women. Our findings concerning young women's socio-demographic profile, exposure to mass media, sources of information on SRH related issues and awareness of SRH related issues, agency norms among youth, reproductive histories and health seeking behavior all have implications for the design of a youth-focused intervention in rural India.

The study explored the substantial age gap between the married and unmarried young women. Unmarried young women on average were three and half years younger than their married counterparts. This demographic variation clearly reflects the social norm of early marriage. The majority of young women reported getting married much earlier than the legal age at marriage in India. School enrollment and education may have substantial influence on early marriage. For example, one-third of married young women had never attended school and one-fifth had left school with primary education. In contrast to this finding, two-thirds of unmarried youth were continuing their education and probably had been successful delaying their marriage. These findings emphasize the fact that the national goal of universal schooling is critical to eliminate the social norms of early marriage.

An overwhelming majority of young women was disadvantaged members of the Scheduled Tribes, Scheduled castes or Other Backward Classes, and belong to households with low to moderate living standards. Many reported that they did not work for cash or kind and did not have independent access to income. Even those who were engaged in wage earning activities were working largely as unskilled agricultural and non-agricultural laborers, suggesting disconnect between demographic dividends of young population and lack of market demand for young resources.

Although young women are exposed to various channels of mass media, including television, radio and newspapers, their exposure was irregular (2-3 days in a week) for all channels of communication. This suggests that young women cannot always be effectively reached through electronic or print media. Unlike urban youth, rural young women were also not all exposed to internet, emails and social networks. A better approach may be to reach young women in community settings. Important secondary audiences such as outreach workers (AWWs, ANMs, ASHAs) peers and neighbors can be influential intermediaries in reaching young women. Since these individuals typically provide information on contraception and SRH issues in their communities, it is intuitive that they were the most frequently cited sources of information for sensitive issues such as family planning and abortion. Use of peers and outreach workers as social influencers may also help address the challenges of reaching a low literacy rural youth.

In context of this study, agency was defined as the ability to exercise choices through personal competence to exert influence over life matters, including four key dimensions:

decision-making, freedom of movement, a sense of self-worth and access to resources. Findings highlight the limited agency of rural young women, group little studied in India. The majority of young women are not able to exercise agency in their daily lives. However, spousal control over their wife's mobility inside the village and decision making appears to be stricter than parental control over their unmarried daughter's mobility and decision making. Further research is needed to better understand whether social norms of gender discrimination or relatively better education of unmarried women are influencing the observed differences in agency among unmarried and married women. Study findings however highlights uniform pattern among married and unmarried young women in terms of freedom of mobility outside the village, decision on strategic life choices like marriage and child birth, access to money. Agency measured through a sense of self-worth or self-efficacy also recognizes limited ability of young women to negotiate with elders, peers, and health care providers to share her opinion, discuss reproductive health matters, and further negotiating with her spouse to have no sex without her willingness. Our findings on agency are consistent with similar work in India (Jejeebhoy et al. 2010, IIPC & Population Council 2010).

This assessment of young women's awareness of SRH matters and current practices of utilizing health care services for reproductive health issues including abortion and postabortion complications suggests a need for a comprehensive, youth-focused behavior change communication. Irrespective of marital status, rural young women are ill-equipped to deal with their sexual and reproductive health. Findings underscore young women's limited knowledge on menstruation, sex and pregnancy. The majority of young women either had expressed ignorance or misunderstanding of the association between frequency of intercourse and the likelihood of pregnancy; over 80% of young women felt that one can't get pregnant at first sex, but only with repeated sexual act. Even married youth were not sure about the safe period where women are less likely to get pregnant. This lack of understanding was similar for contraception.

Although 41% of total abortions in India are reported by young women age less than 25 years (Banerjee et al. 2013), young women uniformly were ignorant about the legal aspects of abortion. Though the MTP Act has existed for four decades in India, more than 95% of the young women in this study were unaware that abortion is legal in India, and almost none of the young women were aware of the specific gestation up to which abortion is legally allowed in India.

The multivariate results provide a clear insight of the factors associated with young women's knowledge of SRH issues. Age, education, and marital status are significantly associated with correct awareness, while caste, religion, work status and family composition had no influence on knowledge of sex and pregnancy and contraception. Though the finding that young woman in the joint family or working outside home are being associated specifically with low level of awareness on abortion issues may seem counterintuitive as family members and friends are reported as the main source of information. It is likely a reflection of the fact that other family members and friends are also not aware of the legal aspects of abortion. The

finding that young women who have any exposure on SRH issues are more likely to have significantly better knowledge of sex and pregnancy, contraception, and abortion, highlights a promising opportunity for youth-focused communication intervention to improve knowledge.

Reproductive histories of young women clearly reflect the continuing trends of early pregnancy and high fertility. More than one-third of young married women reported two and more surviving children at the age of 15-24 years. One-fifth of young women had experienced at least one pregnancy loss. In contrast to the urban youth, almost one-tenth of rural young women reported completing desired family size and had accepted female sterilization as contraception. Even after six decades of official family planning in India young women rarely accept any modern spacing methods, including condom, oral contraceptive pills, and IUCDs.

The knowledge gaps and poor agency may also serve as potential barriers to utilization of SRH and safe abortion services. Although public sector health care services are provided free, young women with poor economic background appear to prefer to approach either a private doctor or unskilled rural practitioners. For example, a majority of young women seeking abortion service approached a provider who is either not legally allowed to offer abortion or who is posted at a facility that is not approved for abortion care the government. Again, our findings are in line with other research in India (Banerjee et al. 2012, Jejeebhoy et al. 2006). It is likely a reflection of the fact that public sector SRH services are not available in villages, and women must travel great distances to access these services. Alternatively, it is also possible that young women do not feel comfortable to go to a public sector facility not sensitive to address the needs and privacy of young women. Interventions intended to address the SRH needs of youth population must consider the need of highlighting youth-friendly health facility.

Study limitations

Our findings should be viewed within the context of the study's limitations. Household surveys rely on self-report by the respondents and reporting and recall bias are possible. Like other demographic and social surveys, the incidence of abortion and knowledge of abortion-related information may be under-reported. The findings of this study are based on three selected blocks and cannot be generalized to the young population of Jharkhand. However, most of the study's findings on young women's knowledge, attitudes, behavior, and practice are in line with other published research in India. We acknowledge some shortcomings to measure the agency among young women. With limited available literature in India, we tried to pose questions those were pre-tested and placed in earlier research conducted among youth.

Table 1: Socio economic profile of married and unmarried young women in Jharkhand, 2012

Characteristics	Married (N=690)		Unmarried (N=691)		Total (N=1381)	
	N	%	N	%	N	%
Current age (in years)						
15-17	147	21.3	608	88.0	755	54.7
18-20	291	42.2	69	10.0	360	26.1
21-24	252	36.5	14	2.0	266	19.3
Mean Age (SD)	19.5 (2.3)		15.9 (1.4)		17.7 (2.6)	
Education						
Never Attended School	231	33.5	63	9.1	294	21.3
Primary	128	18.6	54	7.8	182	13.2
Middle	243	35.2	452	65.4	695	50.3
Secondary & above	88	12.8	122	17.7	210	15.2
Mean schooling (SD)*	6.5 (3.10)		7.8 (2.37)		7.2 (2.76)	
Currently studying						
Yes	35	5.1	463	67.0	498	36.1
No	655	94.9	228	33.0	883	63.9
Mean (*SD*) age at marriage	15.7 (*1.7*)					
Religion						
Hindu	501	72.6	471	68.2	972	70.4
Muslim	187	27.1	214	31.0	401	29.0
Other	2	0.3	6	0.8	8	0.6
Caste						
Scheduled Caste (SC)	98	14.2	86	12.4	184	13.3
Scheduled Tribe (ST)	27	3.9	33	4.8	60	4.3
Other Backward Class (OBC)	476	69	463	67.0	939	68.0
General	89	12.9	109	15.8	198	14.3
Type of Family						
Nuclear Family	147	21.3	323	46.7	470	34.0
Joint-extended Family	543	78.7	368	53.3	911	66.0
Types of Occupation						
Farming (Family land)	26	3.8	7	1.0	33	2.4
Agricultural labor	30	4.3	27	3.9	57	4.1
Non-agricultural wage labor	28	4.1	14	2.0	42	3.0
Business & salaried	18	2.6	13	1.9	31	2.2
Not Working	588	85.2	630	91.2	1218	88.2
Wealth Index						
Low	321	46.5	307	44.4	628	45.5
Medium	277	40.1	282	40.8	559	40.5
High	92	13.3	102	14.8	194	14.0
Exposed to mass media#						
Yes	445	64.5	551	79.7	996	72.1
No	245	35.5	140	20.3	385	27.9

*: Average schooling is for those who attended school; #: Mass Media includes – TV, Radio, Newspaper and Movies

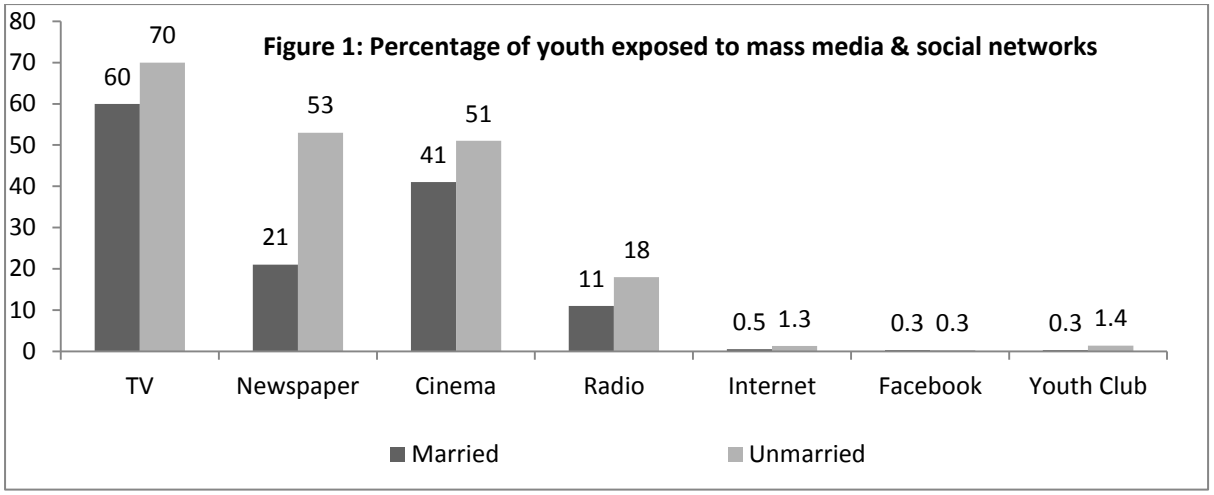

Table 2: Sources of information on SRH, contraception, and abortion related issues (%)

Information Sources	**SRH Issues**			**Contraception**			**Safe abortion**		
	YMW	**YUW**	**TOT**	**YMW**	**YUW**	**TOT**	**YMW**	**YUW**	**TOT**
Received any information	89	69	79	89	74	81	10	3	7
Information Sources									
Mass media	17	20	18	22	37	29	13	42	20
Wall Sign	2	10	6	9	20	14	1	8	3
Outreach (AWW/ASHA)	27	15	22	29	14	22	20	17	19
ANM/ Nurse	5	3	4	6	3	4	9	4	8
Family members/ relatives	72	79	75	74	72	73	42	38	41
Husband	34	--	--	38	--	--	17	--	--
Friends / neighbors	71	79	75	80	82	81	73	75	73
Health facility-Public	1	2	1	3	1	2	3	8	4
Health facility-Private	7	2	5	5	1	4	19	0.0	14
Other	1	1	1	0.8	0.2	0.6	1	0	1

Table 3: Participation of young married and unmarried women in decision-making on selected matters, Jharkhand 2012 (%)

Information Sources	**Married (n=690)**				**Unmarried (n=691)**				**Total (n=1381)**			
	Respondent	Jointly	Husband	Others	Respondent	Jointly	Parents	Others	Respondent	Jointly	Husband/parent	Others
Own health care	5	3	67	25	1	0.3	94	5	3	2	80	15
Choosing any doctor	3	3	65	29	0.4	0.4	93	6	2	2	79	17
When to get pregnant	9	0.1	88	3								
When to get married					2	1	95	2				
Choosing a friend	71	0.3	23	6	81	0.4	18	0.4	76	0.4	20	3
Spending money	20	2	59	19	26	0.3	69	5	23	1	64	12
Buying cloths for own	13	3	62	22	17	1	77	5	15	2	69	14

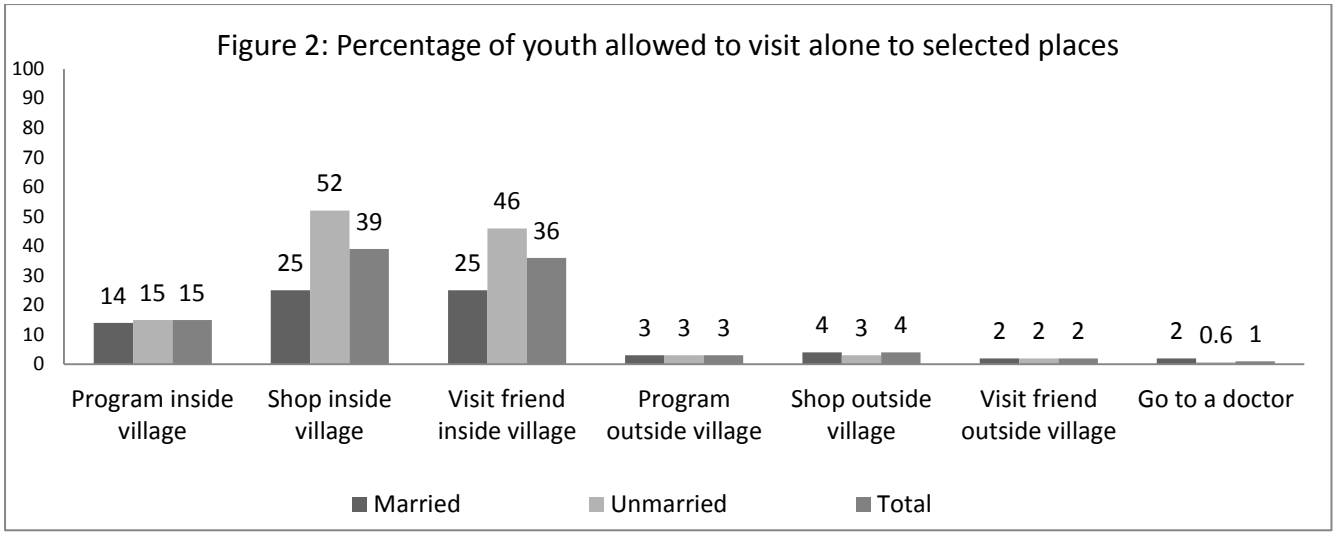
Figure 2: Percentage of youth allowed to visit alone to selected places
100
90
80
70
60
50
40
30
20
10
0
14 15 15
25 52 39
25 46 36
3 3 3
4 3 4
2 2 2
2 0.6 1
Program inside village
Shop inside village
Visit friend inside village
Program outside village
Shop outside village
Visit friend outside village
Go to a doctor
Married
Unmarried
Total

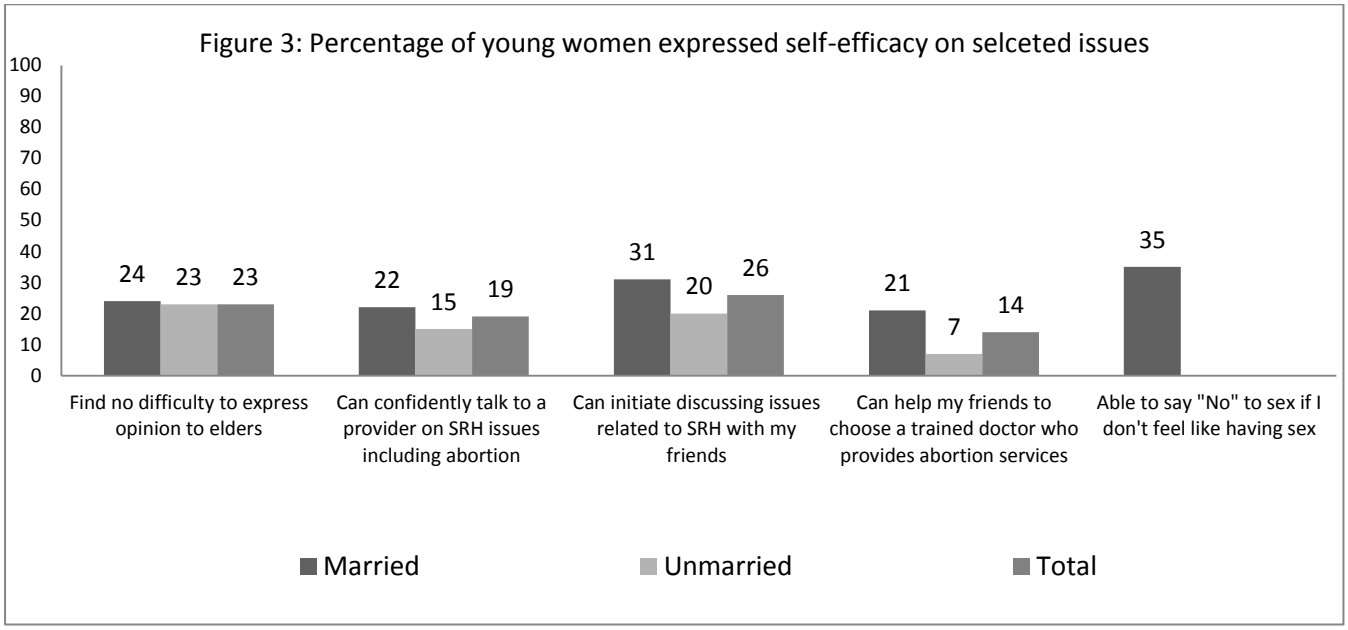
Figure 3: Percentage of young women expressed self-efficacy on selceted issues
100
90
80
70
60
50
40
30
20
10
0
24 23 23
22 15 19
31 20 26
21 7 14
35
Find no difficulty to express opinion to elders
Can confidently talk to a provider on SRH issues including abortion
Can initiate discussing issues related to SRH with my friends
Can help my friends to choose a trained doctor who provides abortion services
Able to say "No" to sex if I don't feel like having sex
Married
Unmarried
Total

Table 4: Knowledge of sex and pregnancy, contraceptive methods and abortion issues amongst married and unmarried young women in Jharkhand-India, 2012

	Married (N=690)		**Unmarried (N=691)**		**Overall (N=1381)**	
	N	**%**	**N**	**%**	**N**	**%**
Knowledge of Sex and pregnancy						
No correct response	18	3	99	14	117	9
1-2 correct responses	244	35	449	65	693	50
3-4 correct responses	370	54	139	20	509	37
5 & above	58	8	4	0.6	62	4
Mean composite score [range 0-6] (*SD*)	2.9 *(1.2)*		1.8 *(1.1)*		2.4 *(1.3)*	
Knowledge of contraception						
No correct response	0	0	4	0.6	4	0.3
1-2 correct responses	261	38	563	82	824	60
3-4 correct responses	322	47	120	17	442	32
5 & above	107	16	4	0.6	111	8
Mean composite score [range 0-8] (SD)	3.0 (*1.5)*		1.7 (*0.9)*		2.4 (*1.4)*	
Knowledge of legal aspect of safe abortion						
No correct response	382	55	488	71	870	63
1-2 correct responses	274	40	186	27	460	33
3-4 correct responses	31	4.5	15	2	46	3
5 correct responses	3	<1	2	<1	5	<1
Mean composite score [range 0-5] (SD)	0.7 (*0.9)*		0.4 (*0.8)*		0.5 (*0.8)*	

Table 5: Multiple linear regression results of factors associated with young women's knowledge of sex & pregnancy, contraception and abortion related issues, Jharkhand-India, 2012

	Standardize β Coefficients on knowledge of		
	Sex & pregnancy (N=1381)	Contraception (N=1381)	Abortion (N=1381)
Age			
Age Upto 18 years (R)	R	R	R
19 -24 years	0.12***	0.15***	0.05
Education level			
No Education (R)	R	R	R
Primary	0.07**	0.06*	0.04
Middle	0.10**	0.12***	0.09**
Secondary +	0.21***	0.24***	0.19***
Marital Status			
Un married (R)	R	R	R
Married	0.39***	0.43***	0.14***
Type of family			
Nuclear family (R)	R	R	R
Joint-extended family	-0.00	-0.04	-0.07**
Caste			
SC/ST (R)	R	R	R
OBC	-0.05	0.04	0.12**
General	0.06	0.01	-0.06
Religion			
Hindu (R)	R	R	R
Non-Hindu	0.05	-0.02	-0.09**
Work Status			
Not working (R)	R	R	R
Working	.001	-0.04	-0.12***
Living Standard			
Low (R)	R	R	R
Medium	-0.01	0.04	0.08*
High	-0.02	0.11***	0.19***
Exposure to SRH information			
No (R)	R	R	R
Yes	0.16***	0.01	0.08**

t-tests measuring significance of difference with reference category, significant: * p<=.05; **p<=.01; ***p<=.001. R= Reference Category

Table 6: Reproductive histories and pregnancy outcomes of young married women, Jharkhand 2012

Reproductive histories & pregnancy outcome	**Married (N=690)**	
	N	**%**
Pregnancy History		
Ever been pregnant	563	81.5
Mean (*SD*) number of lifetime pregnancies #	*2.1 (1.1)*	
Currently pregnant	129	18.6
Number of children surviving		
0	210	30.4
1	238	34.5
2	159	23.0
3 or more	83	12.0
Mean *(SD)* number of children surviving #	1.7 *(0.9)*	
Ever had pregnancy loss	141	20.4
Mean *(SD)* number of pregnancy loss$	1.3 (0.6)	
Ever had still birth (one or more)	37	5.4
Mean *(SD)* number still birth$	1.1 *(0.4)*	
Ever had miscarriage	90	13.0
Mean (SD) number of miscarriage$	1.2 *(0.6)*	
Ever had induced abortion	23	3.3
Mean (SD) number of induced abortion$	1.2 (0.5)	
Contraception		
Current use of contraception (among non-pregnant)	98	17.5
Method-mix of contraception (among users)		
Female sterilization	52	9.3
Oral contraceptive pill	10	1.8
Condom	11	2.0
IUCD	1	0.2
Traditional method (Safe & withdrawal)	24	4.3

Means are calculated for young women who had ever been pregnant and who had given a live-births

Table 7: Utilization of SRH and abortion services by young women who had induced / spontaneous abortion (%)

Provider/ facility visited	RH & personal health care		Abortion & post-abortion care		
	Married (N=690)	Unmarried (N=691)	Induced (N=23)	Spontaneous (N=74)	Total (N=97)
Public sector					
Doctor- PHC/CHC/RH	9	6	4	1	2
Doctor-Secondary/Tertiary	3	1			
Health Intermediaries	9	3			
Private sector					
Private clinic /Nursing home	63	41	52	77	71
Other private					
Pharmacy / Chemist	5	7	26	3	8
RMPs & traditional healers	33	42	17	19	19
Didn't avail any services	6	16			

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