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Rural Women in India: Assessment of Educational Constraints and the Need for New Educational Approaches

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This study adds to the existing literature on women and education in developing countries in general, and India in particular, by recognizing the important linkages between the family and the acquisition of female literacy in developing countries, particularly in rural areas, and by addressing some of the important familial, sociocultural, individual-level, and institutional factors that constrain female educational attainment. While our focus is on India, findings have value for other societies as well. Specifically, we report the findings of a field study designed to elicit feedback and insight from the perspective of rural women about the form, content, and operation of literacy programs. We find that despite their own negative experiences with education, rural women seek participation in education programs suited to the specific needs of themselves, their children, and their community. Implications for community action and improved coordination between international agencies, government, nongovernmental organizations and communities for educational programs are discussed.

In the 2 decades following the first United Nations (UN) Conference on Women and Development in Mexico in 1975, female education has been a priority of international development agencies including the World Bank and the United Nations agencies. The goal has been to raise literacy levels of girls and adult women in the member states. Unfortunately, progress toward the goal of female literacy has been disappointing, particularly in rural areas where rural women constitute a majority of the female population in most developing countries. Differences surfaced again at the recent UN conference in Beijing between official delegations and nongovernmental organization (NGO) representatives meeting concurrently about how best to address the serious problems associated with female education. Much of the attention has focused on divisive issues over national versus community-based organization and control. The purpose of this article is to refocus attention on common issues faced by program providers and their clients in the field where the primary concerns are ones of program access, quality, relevance, and sustainability. Specifically, we report the findings of a field study designed to elicit feedback and insight from the perspective of rural women about the form, content, and operation of literacy programs.

The numbers on adult illiteracy are large and have declined only modestly in the past few decades. The aggregate numbers clearly show the continuance of systematic disadvantage for girls and adult women. According to a report by the United Nations Educational, Scientific, and Cultural Organization (UNESCO, 1995), in 1980, 62.8% of the world's 877 million adult illiterates were women. By 1995, the proportion of total illiterates who were women actually increased to 63.8%. Although the male-female literacy gender gap narrowed from 15.35% in 1980 to 12.4% in 1995, the size of the remaining gender gap and the slow rate at which it has been narrowing over the past 15 years suggests that this gap could well persist into the early 21st century. A recent World Bank study found that in the past 30 years, women in developing countries have increased their average years of schooling by about 0.6 years more than males (Horn & Arriagada, 1986). But despite this increase, women's enrollment in primary and secondary education is lower than that of men by at least ten percentage points in 66 of 108 countries and is higher only in eight countries (Sivard, 1985). In absolute numbers, the vast majority of women who cannot read and write is concentrated in Asia; illiterate women in this region alone account for over 77% of the world total (Ballara, 1992). Clearly, if gender disparities regarding illiteracy are to be reduced, major efforts must be made in Asia and Africa.

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The question is no longer whether or not to educate women towards higher literacy levels, but instead what types of skills will bring about the desired policy, social, and individual outcomes, and what type of programs will bring about these desired skills in various contexts (Wagner, 1993). The extensive amount of empirical as well as anecdotal information in this area points to some important trends and the need for new priorities. As we will show below, it is becoming increasingly clear that important linkages exist between literacy for women in the Third World and family, community, and health characteristics. Literacy, childhood development, family, and health issues are closely linked even though they have been treated separately in research, practice, and policy (Becker & Lewis, 1974; Puchner, 1993, 1995). Further, the interconnectedness of women's literacy with family and society also highlights the important fact that attempting to improve women's literacy levels will not work if women's literacy efforts remain focused on women alone. Few programs try to address the complex linkages between women's participation in education and the more private world of kinship and family that women inhabit (Mukhopadhyay & Seymour, 1994; Panigrahi, Menon, & Joshi, 1987).

This study adds to the existing literature on women and education in developing countries in general, and India in particular, by recognizing the important linkages between the family and the acquisition of female literacy in developing countries, particularly in rural areas. An attempt is made to address some of the important familial, sociocultural, individual-level, and institutional factors that constrain female educational attainment. The study does not attempt to evaluate a family literacy intervention, but rather explores the potential for a future family literacy intervention by addressing respondents' current involvement in their children's education. While the societal focus here is on India, findings have value for other developing societies as well.

Women and Education in Developing Countries

Until recently, improvement in the educational status of women was advocated principally on the grounds of human rights, social justice, and equality. It is now evident that literacy for women can also produce significant social, economic, and personal benefits such as better personal and family health, lower fertility, the readiness to participate in new economic activities, and female empowerment (Caldwell, 1986; Cochrane, 1979; Myers, 1995; Puchner, 1995; Stromquist, 1992; Subbarao & Raney, 1993).

From a strictly economic efficiency perspective, women's education has been shown to have equal, if not higher, social and private returns than investment in men's education in many countries in Asia (Jain & Nag, 1986; Subbarao & Raney, 1993; Tilak, 1994). Further, more highly educated women have higher labor force participation rates and remain in the workforce much longer than women with lower levels of education. Table 1 summarizes research on the effects of mothers' education on children and their educational development at various developmental stages, beginning with the role of education on the initial propensity to have children. Girls' and mothers' education is important in determining fertility rates. The latter, in turn, is related to the preschool cognitive development of children and their subsequent achievement in school.

Higher education for mothers is associated not only with healthier children, but with children's acquisition of knowledge, language, and literacy skills as well. Further, parent and child interaction at the preschool level promotes the development of cognitive, language, and preschool literacy skills in children (Sticht, 1994; Sticht & McDonald, 1990). Research by the World Bank in Egypt and Thailand indicates that mother's education level, more than the father's education, is positively related to higher aspirations for and participation in education by their daughters (Cochrane, Mehra, & Oshiba, 1986). The interconnectedness of women's literacy with family and society highlights the importance of women's participation in family literacy programs.

Despite the established importance of female education, women continue to lag very much behind men in educational development in countries like India. In 1995, 62.3% of the female population in India was illiterate as compared to the 34.5% of males (UNESCO, 1995). In rural areas, the illiteracy rate is at least 67% for women aged 15 and above, and ranges from 80% to 90% for women aged 25 to 59 years. Why do a majority of rural women remain illiterate despite the many efforts to impart education?

A History of Unfulfilled Promises

Not all education programs are equally beneficial. A review of the literature reveals a high rate of failure of conventional educational programs, both formal and nonformal, for rural women (Ballara, 1992; Chlebowska, 1992; Mazumdar, 1993). A number of factors contribute to this failure.

A great body of literature (Bernard & Gayfer, 1983; Bhangoo & Kaur, 1988; Bhola, 1979; Chlebowska, 1990) has shown that the acquisition of literacy, in the narrow sense of simply learning to read and write, does not mobilize rural women of Third World countries unless it is accompanied by the acquisition of basic knowledge and skills genuinely adapted to their daily existence and needs. If literacy campaigns are not adapted to the requirements

Table 1
Some Effects of Higher Levels of Mothers' Education at Different Phases of Child Bearing and Schooling

Phase of Child Bearing/Schooling	Effects of Higher Levels of Mothers' Education
Before pregnancy	Higher economic productivity; better personal health care; lower fertility rates; smaller families
During pregnancy and at birth	Better prenatal health care; more full-term births; higher birth-weight babies; fewer learning disabilities
Before going to school	Better health care; better development of language, cognitive, and literacy skills; better preparation for schoolwork
During the school years	Higher participation rates in the schooling process; better management of homework; better advocacy for children's education and negotiation of school/child conflicts; higher academic achievement by children.

From: *Family literacy: A world movement* (p. 13), by T. Sticht, 1994, Paris: France: UNESCO.

of everyday life or survival, women will be reluctant to participate or will give up without staying the course (Chlebowska, 1990).

According to a 1991 UNESCO report on the Asia-Pacific Program of Education for All (APPEAL) in India, the following were some of the major weaknesses of existing Adult Education Programs: low credibility of monitoring system; poor learning environment in adult education centers resulting, in a high dropout rate; absence of linkages between basic literacy, postliteracy, follow-up, and continuing education, resulting in relapse of the newly literate into illiteracy; and a lack of participatory and communicative techniques in the training of adult education teachers.

Of the many shortcomings listed above, perhaps the most important is that the recipients of the education perceive the curriculum as being irrelevant to their daily needs. In the case of rural women, the definition of literacy must be refined and adapted to their specific aspirations and needs. A more appropriate definition of a literate woman, as suggested by Chlebowska (1990), would be a person who possesses sufficient knowledge of reading, writing and arithmetic to guarantee an improvement in the quality of her own life and that of her family, and to facilitate her full participation in the development of the group and the community.

For rural women in particular, the curriculum inherited from the colonial period, which fails to address agriculture, health care, sanitation, and political rights, makes schools seem unattractive and their teachings useless for daily life (Mazumdar, 1993). A major criticism of the adult education programs is that their curriculum reflects a middle-class world view, and course materials rarely take into account the vital role of women in production (Desai, 1993). Many programs stress the position of women as homemakers, providing training in conventional areas that is irrelevant for the majority of women who must earn a living and who therefore need information on alternative channels of employment and awareness of their rights as workers. According to Mazumdar, ". . . we do not need new agencies to educate rural women. We need education to convey a new perspective, not just in India but all over the world" (p. 20).

For all the reasons cited above, programs in India such as the National Adult Education Program (NAEP) and Functional Literacy for Rural Women have failed to mobilize and motivate rural women (Shah & Bhan, 1980). Most programs, especially the national-level and large-scale ones, regard the women as passive recipients of the educational intervention (Chlebowska, 1990, 1992). When program failures occur, there has been an unfortunate tendency toward "blaming the victim." That is, failure of the programs to educate women is seen as resulting from the inability of the women to utilize the educational facilities effectively (Ryan, 1976). Successful literacy programs for women indicate that the greater the participation of the rural women in the programs, the more successful these programs are in meeting their objectives (Bernard & Gayfer, 1983; Bhola, 1979; Buvinic, 1986; Chambers, 1994).

Clearly, persistent, low female educational rates in developing countries are a multifaceted problem. Adverse sociocultural, individual-level, and institutional factors constrain female educational achievement.

Family Literacy: An Alternative Approach

The concept of 'family literacy' constitutes a significant innovation in the literacy movement to educate rural populations. According to UNESCO,

> The family constitutes a context of formal education, a base from which members seek formal education, and should provide a supportive environment for learning. Literacy has a dramatic effect on the dissemination of ideas and the ability of families to adopt new approaches, technologies and forms of organization conducive to positive social change. Often affected by early school leaving or dropping-out, literacy is a prime conditioner of the ability of families to adapt, survive and even thrive in rapidly changing circumstances. Attention should also be given to promoting equal opportunities for girls and young women. (1991, p. 16)

Although the family's role as a key agent in educational development has always been recognized, the UN statement asserts that the family is each society's first and most basic educational institution and that its primacy is often overlooked in planning educational programs. The important linkages between families and literacy have been recently recognized by American researchers and practitioners and this awareness has further encouraged the interest of international development agencies in the family literacy approach to literacy development (Cuban & Hayes, 1996).

We contend that the analysis of the theoretical assumptions underlying family literacy, the program components, and the social gains for parents (specifically mothers) and children indicates that it is certainly feasible to replicate such programs in a developing country. Given its adaptability, it is surprising that the concept of family literacy has not been adopted by the governments of developing countries in an attempt to improve the low literacy levels that typically exist in these nations. Although numerous social and welfare schemes in nutrition and health attempt to integrate adults and the children, it is important to question why this strategy has not been extended to education and literacy acquisition.

One confounding issue in this discussion is that family literacy is a term that is often loosely used to refer to any nonformal educational program that targets more than one generation. If this all-encompassing definition is used, there is no paucity of programs in developing countries that fit this definition. However, in the present context, family literacy activities are those in which parents and children participate simultaneously. Using this restricted definition, one finds that the programs that have the components of a true family literacy intervention are few and far between.

Given that the concept of family literacy has evolved in a Western context, researchers and practitioners in developing countries need to be particularly cautious in extrapolating the assumptions and values underlying the Western model of family literacy (Puchner, 1993, 1995). For example, the Western concept of family literacy might not take into account the important role of the family dynamics that typically occur in extended families. Hence, a broader definition of family literacy needs to recognize the bidirectionality of influence in the learning situation by considering not only the parent-to-child influences, but also influences going from child to parent, adult to adult, and child to child within a family or an extended-family network. "Consequently, when transferring notions of family literacy from industrialized to developing nations, educators must be careful not to carry over the Western model of the household as a nuclear family, or even assume that the household functions as a socioeconomic unit with defined boundaries" (Puchner, 1995, p. 314). In many Third World settings, constantly shifting inter-household resource and labor exchanges exist such that family limits are difficult to define (Moser, 1993).

As pointed out earlier, 'family literacy' as defined in the Western context has not been adopted by developing countries. Nonetheless, there are numerous programs in the developing world which may be considered family approaches to literacy in that they are inter-generational and they focus on literacy development by encouraging the involvement of family members in literacy and education issues. Such programs typically focus on educating parents and other caregivers in the community. Although most of these programs are not aimed directly at raising literacy levels of children (as in the American programs), this type of program has an indirect effect on children, as it fosters the ability of parents to meet needs of children for healthy development. Such education can be done through home visits, the media, child-to-child or youth programs, or in adult literacy classes (Myers, 1995).

In addition to the positive results seen in approaches such as those described above, there are other positive outcomes that support the argument that family literacy approaches may be an effective way to enhance literacy development in some Third World contexts. Life in developing countries, particularly in the rural areas, is heavily influenced by family forces. For example, male resistance to enhancing female education is a common problem in the patriarchal-based societies of developing countries, particularly in South Asia. In such situations attempts at enhancing women's literacy levels might be more successfully achieved by raising awareness of male members of the family concerning the potential benefits of literacy education than by soliciting women (Puchner, 1993, 1995). Second,

family literacy approaches may allow programs to share and save resources, as space may be jointly used for preschool and adult education, or as child-care problems are alleviated through joint parent-child literacy learning activities. Therefore, family literacy programs would be particularly beneficial to developing countries because the multi-pronged approach would help achieve greater gains in literacy for adults and children by using resources more efficiently. Finally, joint parent-child learning also may capitalize on the motivation of some parents to learn literacy in order to help their children do better in school.

The Indian Education System

The formal education system in India is highly centralized with both public and private schools following a common curriculum and operating on common procedures. The Department of Education within the Ministry of Human Resource Development is responsible for public education in both rural and urban areas (Ministry of Human Resource Development, 1993). Central educational planning, policymaking, resource allocation, curricula, teacher assignments, and selection of textbooks leave little opportunity for influence by sub-state agencies (districts, blocks, and villages) (Patel, 1996). The educational structure provides for primary school (grades 1 to 5), middle school (grades 6 to 8), secondary school (grades 9 and 10), higher secondary school (grades 11 and 12), and university baccalaureate (generally 3 years). In practice, however, few from the rural areas advance beyond the primary level (Tilak, 1994). Primary schooling, in rural as well as urban areas, is designed to impart a broad-based general education which consists of learning the mother-tongue; core subjects (general mathematics, general science, and social studies); extracurricular activities, such as arts and crafts; and physical education. The Indian government has routinely reviewed the country's educational system since the time of the country's independence in 1947. A number of reports have been published by various committees and commissions dealing with reforming various areas of the educational system. However, national policy on education has been reformulated only twice by the government (Ayyer, 1993).

The data in Table 2 point to the current status of education in India. The gap between female and male literacy rates continues to be high in 1992 (almost 23%). Only half of India's population, aged 6 to 23, is enrolled at all levels of education (Census of India, 1991). Public expenditure on education is almost 4% of India's Gross National Product (GNP) and is 11.2% of the total public expenditure. The public expenditure on primary and secondary education is 65% of the total expenditure on education. In addition, financial and technical support for education has been received from United Nations Development Program (UNDP), UNESCO, World Bank, Ford Foundation, and NGOs.

The Ministry of Human Resource Development also provides for nonformal and adult education. The major thrust of adult education is on imparting basic literacy education to adult illiterates in order to increase their participation in development. The National Literacy Mission (NLM), launched in 1988, introduced Total Literacy Campaigns (TLCs) as a strategy for eradicating illiteracy in the age group of 15 to 35 years. Women and other disadvantaged groups with very low levels of literacy were identified as important target groups for TLCs. The operational strategies of the NLM have in recent years recognized the need for enhanced participation of community volunteers and NGO's to build a positive climate for literacy consistent with the goals articulated by the Education for All Program (UNESCO, 1991). In response to changing educational needs, the Indian adult education system has attempted to incorporate organized and flexible learning opportunities for out-of-school youth and adults into its existing literacy programs (Patel, 1996). TLCs have been successfully implemented in 179 districts and an additional 200 districts will have been covered by the end of 1997 (Ayyar, 1993). It is estimated that out of the 194 million adult illiterates in the age group 15 to 35, 80 million are covered by the TLCs launched in 350 rural districts between 1992 and 1997. The remaining 24 million are covered by literacy programs run by nongovernmental organizations and educational institutions (Patel, 1996).

Schools in rural India are subject to inadequate basic facilities (Tilak, 1994). In 1986, nearly half of all primary schools did not have all-weather buildings; 14% of the schools were run in open spaces, tents, or thatched huts; one third of the primary schools had just one classroom; 7.5% did not even have a classroom; 8.7% did not have any playgrounds; about half did not have drinking water facilities; and, 15% of the schools did not have toilets (Tilak, 1994).

Methodology and Description of Study Region

Sampling, Research Strategy, and Data Collection

The sample comprised 102 rural women aged 15 to 35 years who had children. The sample was selected by following a multistage random sampling procedure at the district, block, and village levels, resulting in the selection of three villages. For the final stage of the sampling, the Block Development Officer provided for each village a list of married women between the ages of 15 to 35 years who had children. To ensure that the sample accurately represented the population, the women from each village were selected in proportion to the actual number of married women with children for that village. Table 3 provides the

Table 2
Sociodemographic and Educational Comparisons at the National, State, and District Level

	India	Madhya Pradesh	Betul District
Population (in millions)	843.0	66.2	1.2
Rural Population	76.8%	70.0%	81.3%
Rural population below poverty line	32.7%	41.4%	—
Total Literacy Rate	52.1%	43.5%	36.6%
Female Literacy Rate	39.4%	28.4%	26.8%
Male Literacy Rate	63.2%	57.4%	45.6%
Gross enrollment ratio for all levels[a]	50.0%	—	—
Public expenditure on education			
Education expenditure (% of GNP)	3.7%	—	—
Education as a % of total government expenditure	11.9%	—	—
Primary and secondary school expenditure	65.0%	—	—
Higher education expenditure	15.0%	—	—
Sex ratio (women per 1000 men)	929.0	932.0	—
Female Age at Marriage (in years)			
Urban	18.6	17.5	—
Rural	16.5	15.3	—
Total Fertility Rate (# of children)	3.6	4.5	—

Note: Literacy Rate is measured as the percentage of literate persons in a particular category.
[a]Percentage of persons aged 6 to 23 years.
From *Census Report of India*, by the Government of India, 1991, and the *Human development report*, by United Nations Development Program, 1990, 1996, New York: Oxford University Press.

total population of each village, the size of the study population, and the number of women sampled from each village.

The data were collected using an interview schedule constructed by the authors with input from regional experts and agency representatives. The respondents were asked 55 open and close-ended questions. The in-depth interviews were conducted by the primary author and two female collaborators selected from the village community. The assistance of the collaborators provided a participatory and community-level approach to the study. The interview schedule was designed to collect data in the following five areas: the sociodemographic characteristics of the respondent and her family, village and community-related variables, education-related variables, health and nutrition-related variables, and variables pertaining to employment and income-generating activities. The questionnaire was first written in English by the authors and was then translated into Hindi, the primary language spoken by the majority of the respondents, the collaborators, and the primary author. Although the women belonged to tribal groups, they were fluent in Hindi as well as their regional dialect. The guide was pilot tested with 10 respondents to ensure clarity and meaningfulness.

Data were collected over 2 months. Initial contact with the respondents was made to establish a foundation for the interview. All interviews were arranged at a time which would least interfere with other duties. The interviews were conducted in Hindi and later translated into English. Quality control of translation and reliability checks for coding of qualitative material were made. Interviews were conducted in the home and, to the extent possible, outside the presence of older children or male partners. Each interview lasted approximately 2 hours. Other key informants who were significant at the village level in aiding the collection of data were the heads of the villages and their families. They provided an insider's viewpoint on the villages and their communities.

Supplementary and confirmatory information was collected through interviews with government officials, representatives of international organizations, and local NGO's. Secondary data sources were also used, to the extent possible, to provide a frame of reference for the current study. Such information was provided by the Block Development Officer, the State Coordinator of Adult Education, and governmental and nongovernmental organizations such as the Ministry of Human Resource Development, Ministry of Family and Child Welfare, National Center for Human Settlements and Environment (NCHSE), United Nations Children's Fund (UNICEF), and the Ford Foundation.

Table 3
Population of the Three Villages, Study Population, and Number of Women Sampled

	Village I	Village II	Village III
Total Population	747	710	634
Males	371	376	314
Females	376	334	320
Study population[a]	117	46	54
Study sample	54	22	26

[a]All married women aged 15 to 35 years who had children.

Profile of the State of Madhya Pradesh and the Study Region

Madhya Pradesh (MP) is the largest state of India, covering 13.49% of India's total land area, and is located in the heart of the Indian subcontinent (Figure 1). According to the 1991 Census, MP is a predominantly rural state with 76.8% of its population residing in rural areas. The state is divided into 45 districts. These districts are further divided into 459 blocks, which in turn are divided into 70,884 villages. The state comprises 7.84% of India's total population, of which almost 23% are tribal people. Indian tribes may be described as the aboriginal and primitive people of India who can trace their existence back to the time of the geographic formation of the Indian subcontinent (Furer-Haimendorf, 1982). More than 40 million Indians belong to tribal communities distinct from the Hindu caste system. Many speak tribal languages not understood by other Indian populations and they follow religious and social customs foreign to Hindus and Muslims. The tribal communities represented in the study are the Gonds and Korkus, two of the major tribal groups in central India.

Overall, MP is not a very progressive state, and this is evident in development indicators such as education, the rural-urban ratio, and the status of women (Table 2). The rural areas of the state suffer from acute poverty with almost 42% of the rural population existing below the national poverty line as compared to the national average of 32.7%. The sex-ratio of the Indian population (women per 1000 men) has been adverse to females. The figures of the 1991 census reveal that the sex-ratio has declined from 934 in 1981 to 929 in 1991 in India and from 941 in 1981 to 932 in 1991 in MP. Females are married off by their families at a very early age, the mean age at marriage for rural women in MP being 15.3 years versus the national average of 16.5 years. The fertility rate for the state is also high as compared to the national average. A woman in the state of MP has 4.5, versus the national average of 3.6.

The literacy rate for the state is 43.45% as compared to the national average of 52.11% (Census of India, 1991). The literacy rate for females is only 28.39% versus 57.43% for males. There are 6.45 primary schools available per thousand people. Only 19.13% of rural female children attend school as compared to 44.69% of rural male children. In the rural areas, 47.62% of all households are without any literate member in the family.

The demographic information for the three villages that comprise the study region indicates that they are very similar. The population of the three villages is primarily tribal. Agriculture is the dominant activity of both men and women. Those who are not employed as cultivators or agricultural laborers may find employment in local industries, where the work is often seasonal and temporary. Therefore, a major proportion of the population of these villages lives under poor and adverse conditions. According to a survey conducted in the same villages by NCHSE in 1989, the average annual income of a family was only Rupees 3200—approximately $94 (US). Apart from agriculture, the villagers also collect some minor forest produce, which provides them with some additional income. The occupation of producing dairy products and rearing livestock is primarily the occupation of nontribal families for whom this occupation is an indicator of enhanced social status.

Advances in technology have had little effect on the lives of the people of these three villages. For most families, the only exposure to the media are battery-operated transistors since several homes have no electricity. As for technological innovations, most cultivators use traditional farming implements (e.g., bullock-drawn ploughs) and follow traditional farming practices (e.g., mono-cropping). The cultivators have almost never been exposed to any kind of vocational training or workshops that would educate them about new and improved farming methods. The government is responsible for the provision of welfare services and basic amenities such as education, health care, electricity, and potable water. Educational facilities are scant and insufficient due to a lack of government resources. Yet another problem is that teachers employed by the government are reluctant to travel to remote rural areas to educate villagers. Further, even though the government makes it

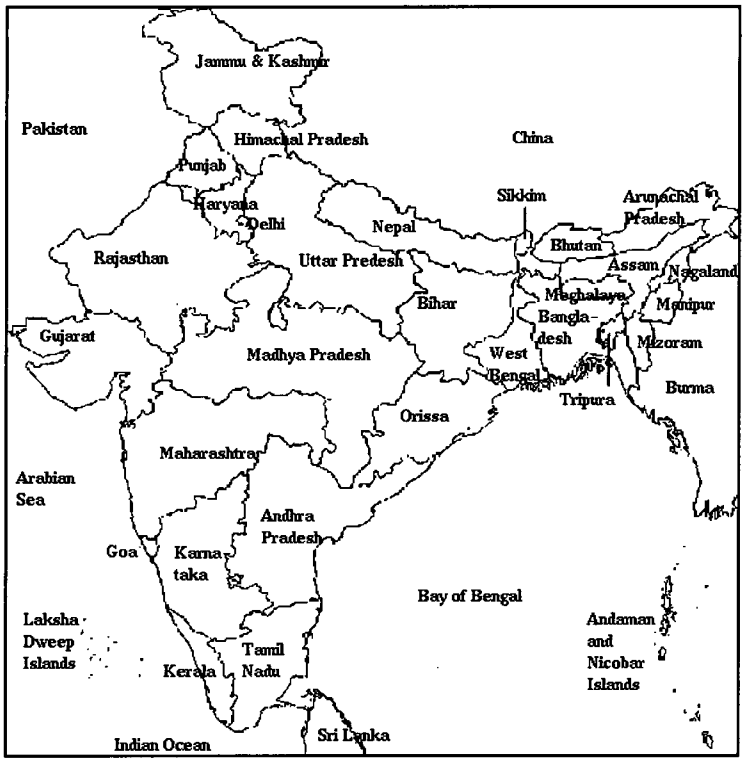

Figure 1. Map of India indicating the state of Madhya Pradesh.

mandatory for teachers employed by the government to also educate rural people, teachers are not remunerated for undertaking the additional responsibility. Hence, teachers employed by the government are often poorly motivated to educate rural populations.

Government health facilities are available to the villagers in a neighboring town. The Out Patient Department of the hospital provides treatment and dispenses medication free of cost. Nonetheless, villagers are often reluctant to approach medical professionals and prefer to take care of their health problems by following traditional home remedies. Health workers visit the households in each village on an annual basis. They immunize all household members and also provide water purifying tablets to purify drinking water. Government health schemes have focused extensively on educating the villagers about population control. Almost all the households in the three villages have been educated about the different forms of birth control and these are usually made available to the villagers free of cost.

Yet another program supported by the government is the *Anganwadi* (Courtyard care) program. The intervention focuses on rural children and provides a space (courtyard) for the children to play and interact for some time. The primary purpose of Anganwadi is to provide one wholesome meal a day for the children, all of whom come from very impoverished backgrounds. It also serves as a day-care facility where mothers can leave their children for a brief while when they are out working on the fields. The program is run by trained social workers and health workers. Some rural women are also employed to work in the facility. A few cooperatives and other agencies have been set up by the government and by nongovernmental organizations in an attempt to involve the villagers in development schemes. However, the scope of these projects is small and their services can only cover a few villages.

Findings

Table 2 presents a sociodemographic comparison of the national population, the state of MP, and the district of Betul from which data were collected. Betul is predominantly rural—81.29% of the population is rural. The composite as well as the gender-specific literacy rates for the state of MP and Betul District are much below the national averages. The total fertility rate for the state is higher than the national average of 3.6 children.

Table 4
Sociodemographic Profile of the Sample (N = *102*)

Variable	*M*	*SD*	Min.	Max.
Respondent's age (years)	28.50	4.29	19	35
Husband's age (years)	32.00	5.24	22	45
Family size	5.82	1.44	3	9
Number of children	3.05	1.25	1	6
Respondent's educational Level (years)	2.28	2.83	0	9
Husband's educational Level (years)	2.12	2.66	0	9
Income Level (in Rupees)[a]	1111.86	589.66	345.00	3500.00

[a]$1 (US) is equivalent to approximately Rupees 34.

Participants' Sociodemographic Profile

Table 4 presents important sociodemographic characteristics of the sample. The average age of the female respondents was 28.5 years while the average age of their spouses was 32.0 years. The mean number of children was 3, with a range of 1-6. The educational level for both males and females is extremely low (2.12 and 2.28 years, respectively). Educational level ranged from a minimum of 0 years to a maximum of 9 years for respondents and their spouses. The average monthly family income for the sample was Rupees 1111.86, or approximately $38 (US).

Participants' Community, Occupational, and Health Profile

Table 5 presents community characteristics, income-generating activities, and the health practices of the sample. For almost 72% of the respondents, the husband was the primary decision-maker. Almost 80% of the sample indicated that they were positively inclined towards and had the time for community activities. Community activities were defined as informal gatherings in courtyards, festivals, and religious ceremonies. Almost 79% of the women also reported that their participation in community activities was valued and encouraged by their family members.

Almost 47% of the women were employed as agricultural laborers. The remaining 53% of the women supplement their family's income through marginal occupations like collection of firewood and cowdung, weaving, and quilt-making. In addition, they spend an average of 8 to 10 hours every day doing household chores including preparation of food and fetching of fuel and fodder. The women's spouses were employed as cultivators (68%) and government employees (32%). As many as 34% of male spouses held a secondary occupation such as selling produce and dairy products, and construction work in neighboring towns. When asked about the orientation of the income-generating activities of their family, only 14% were found to be adopters who were innovative in their approach ('innovation' was defined as the usage of modern agricultural equipment and farming methods). The following are the major reasons cited for following traditional approaches as opposed to more innovative ones: a generalized fear and apprehension of new technology, little knowledge of the functioning of new technologies, and the inability to afford new technology.

A number of questions in the interview were designed to obtain an understanding of what governmental health facilities were available to the sample and to what extent they utilized these facilities. Almost two thirds of the sample reported that they utilized the facilities that were available to them versus, 33% who reported that they did not utilize the facilities and instead relied on traditional health practices and home remedies. A majority of the sample (78.2%) had a functional and procedural understanding of the health facilities available to them. When asked whether they would like to obtain more information about the available health facilities, 56.7% responded positively. For example, the women were particularly interested in gaining more knowledge about preventive health measures to safeguard the health of their children. Almost 58% of the women reported attending the nutrition workshops that were held in their village. The questionnaire was also designed to find out the attitudes and the response of the villagers with regard to birth control. Close to half the sample (45%) wanted to have more children even though more than half the women (55%) were using some form of birth control. Almost all the women (91%) had been exposed to population education programs by the government.

Participants' Educational Profile

Survey responses to questions about education are presented in Table 6. The women in the sample had completed an average of 2.28 years of education; their husbands

Table 5
Community, Health, and Occupational Profile of the Sample (N = 102)

Variable	Number	Percentage
Decision-maker		
Husband	73	71.6
Respondent	22	10.8
Father-in-law	18	17.6
Time to engage in community activities	79	79.0
Family encouragement to participate	79	78.2
Respondents' employment status	47	46.5
Husbands' primary occupation		
Cultivation	68	68.0
Government employee	32	32.0
Husbands with secondary occupation	34	34.7
Orientation of income-generating activities		
Traditional	86	86.0
Innovative	14	14.0
Usage of health facilities	68	66.7
Understanding of health facilities	79	78.2
More knowledge of health facilities	55	56.7
Attendance at nutrition workshops in village	59	57.8
Intention to have more children	46	45.1
Usage of birth control	55	56.1
Exposure to population education programs	91	91.0

slightly less (2.12 years). Only 35.6% of the sample was able to read and only 19% could write more than their name. A small number of women (10%) could perform elementary arithmetic operations (multiplication, division, addition, and/or subtraction). The majority of the sample (74%) could perform only addition or subtraction.

The five reasons given for dropping out of school were: removal from school by parents, unavailability of school in the village, lack of time, irrelevance of education, and poverty. Of these five, perceived irrelevance of education; removal from school, and unavailability of a school were three most frequently cited reasons. Most women reported that their parents held them out of school to work and earn money and care for younger siblings in the home, both of which were activities that left little time for education. With regard to the unavailability of schools, a respondent had the following comment: "I got married when I was 15 . . . prior to that I used to go to school in my own village. After marriage I moved to my husband's village and since there was no higher secondary school here, I could not continue my studies."

Other women reported dropping out of their own volition because they perceived the schooling to be of little value. One respondent reported: "I have no time, I have five children to bring up, my children are small and often fall sick. How can learning to read a book be of any use to me?" A related issue about which the women expressed immense dissatisfaction had to do with the attitudes and inefficiency of the teachers. A respondent who had dropped out of the education program pointed out that "[the teacher] used to come to the village once every couple of weeks . . . . Instead of teaching us, all he did was take our signatures or thumbprints on the attendance sheet to show the authorities that he was making his visits to the village and doing his job!" Only 12.9% of mothers reported being consulted by education providers and education extension workers about what they wanted to learn. Perhaps the most compelling result was that most women (78%) felt that they had not gained from their education.

Despite these negative experiences with the education system, it is remarkable that mothers nevertheless were interested in their children's education and wanted to be an active part of it. Roughly one third responded that they would like to know more about their children's education but knew nothing because they themselves were illiterate; 30% reported visiting the school regularly to find out how their children were doing. When asked why she continued to regard education for her children to be important, a respondent answered: " I want my children (sons) to have opportunities that I don't have . . . . They will be able to travel to the city and, perhaps, make a better living." When asked whether they wanted to be involved in their children's education, 75.2% responded affirmatively. One respondent mentioned that she "often wanted to know more of what really happens when my children go to school. The teachers are hardly ever available to answer questions. I don't even know what questions to ask . . . . You see, I am illiterate and don't understand a whole lot of what is going on."

Further, 80.4% responded that they would like to participate in educational training that would focus on women and children. They responded positively to the idea of such a program because, according to them, it would enable them to participate actively in their children's learning, spend more time with their children, improve their own educational skills, and spend more time in a collaborative setting with other women and children of their community. A related finding was that a majority of the women (80.2%) reported that they would prefer an educational setting that was a participative group setting. This finding agrees with those of other studies that report that nonformal education in natural group settings provides women the opportunity to share and participate actively in the educational process. Only 19.6% of the women reported no desire to participate in such a mother-child family literacy program. A respondent gave the following explanation: "It is a waste of time

Table 6
Educational Profile of the Sample (N = *102*)

Variable	Number	Percentage
Ability to read	36	35.6
Ability to write		
Yes	19	19.0
Can only write name	22	22.0
Ability to perform elementary arithmetic		
Yes	10	9.8
Can only add and subtract	75	73.5
Reported gain from education		
Yes	20	22.0
No	80	78.0
Reasons for dropping out of school		
Parents removed respondent from school	30	34.9
Irrelevance of education	18	20.9
No school available in village	17	19.8
No time	14	16.3
Poverty	7	8.1
Consulted about content of education	13	12.9
Community involvement in education programs	5	5.3
Educational aspirations for children		
Educate children as much as possible	68	67.3
Will only educate male children	30	29.7
Respondent's knowledge of children's education		
No knowledge and information	36	36.4
Respondent's own illiteracy is a barrier	33	33.3
Visit school to meet teachers	30	30.3
Inclination to be involved in child's education	76	75.2
Inclination to participate in a family literacy program with a focus on women and children	82	80.4
Received vocational training	14	14.4
Preference of educational setting		
Nonparticipatory	19	19.8
Participatory	77	80.2
Link between education and economic progress	40	39.6

and money sending my daughter to school where she will learn nothing that is useful to her. Learning the alphabet means nothing for her future . . . ; it will give her grand ideas and will anger her husband."

Three questions in the interview were designed to determine whether functional and vocational training had been a component of the education the women and their spouses had received. Only 14% of the sample reported their or their husbands having received any form of education pertaining to agriculture. Not surprisingly, only about 40% reported that they perceived a link between further education for themselves and the economic advancement of their family.

Table 7 presents intercorrelations among selected socioeconomic and educational variables. Higher levels of female schooling were found to be significantly associated with smaller family size (r = -.32), younger mothers (r = -.35), employed mothers (r = .68), fewer children (lower fertility rate) (r = -.61), higher levels of grandmothers' schooling (r = .21), and the perception that education is relevant to life circumstances (r = .31). Levels of grandmothers' education was also significantly associated with the mothers' intentions to participate in innovative, mother-child educational programming (r = .61) and innovative practices in household/farm production (r = .22).

Summary and Discussion

The results of the study, particularly those pertaining to education, indicate that considerable gaps continue to exist between the theory and practice of basic education for the women of this study. Although mission statements and strategies of existing programs call for participatory interventions with a strong focus on community involvement, the target recipients of the programs report the absence of any real participation, and little if any community involvement in the educational interventions to which they have been exposed.

The relevance of the education being provided to the women in the study is also a major concern. Responses to questions about education, daily activities, and income-generating activities reveal that educational content is not pertinent to the context in which it is being imparted and that it fails to touch upon those aspects of rural life that are of importance to the sample. For example, an interesting finding was that the respondents were proficient in performing simple arithmetic like addition and subtraction. Since the women are unable to write, these computations take the form of 'mental mathematics'. The women are often involved in small trades such as selling crafts and produce and, hence, it is essential for them to be able to add and subtract. However, existing educational programs do not acknowledge this need and do not provide the women with the opportunity to acquire computational knowledge that is relevant to their income-generating activities. The perceived irrelevance of education was one of the major causes of school dropout. A number of respondents posed the following question: "Even if we were educated, what would we do with our education?" Other respondents complained

Table 7
Intercorrelation Matrix for Select Socioeconomic and Educational Variables (N = *102*)

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Family Size										
(2) Age	.26**									
(3) Employed	-.24**	-.34**								
(4) Number of children	.54**	.59**	-.61**							
(5) Income	.15	.36**	-.26**	.30**						
(6) Involved in children's education	-.04	-.06	.07	-.02	.25*					
(7) Womens' mothers' education level	-.03	.05	.04	.04	.27**	.61**				
(8) Respondent's education level	-.32**	-.35**	.68**	-.61**	-.11	.24*	.21*			
(9) Usage of innovative technology	.11	-.06	.03	.10	-.06	.09	.22*	.06		
(10) Education and economic development	-.07	-.02	.29**	-.24*	.26**	.14	.15	.31**	.03	

*$p < .05$. **$p < .01$.

that literacy classes were not held regularly and "nothing important was taught to warrant regular participation."

The findings of the present study substantiate the need for community-based area-specific educational interventions, like family literacy, that would complement large-scale, national-level educational improvement strategies. It was an encouraging finding that despite mothers' negative and disappointing experiences with the education system, the women nonetheless expressed an inclination to be actively involved in an intervention that would involve mother-child interaction. A majority of the sample also expressed educational aspirations for their children, although primarily their sons. This expressed value for education was particularly strong for families of relatively greater income.

The respondents' positive reaction to a mother-child educational intervention indicates that such a family literacy program, that brings the mother and child together in an educational setting, might be a successful innovation in educational programming for rural women. A family literacy program would help resolve some important concerns such as family resistance, non-participatory approach, lack of community involvement, and the irrelevance of education by designing close ties between community life, family life, socioeconomic factors, and human development indicators such as education.

Ultimately, this study addresses matters of educational policy and their implications for community-level development. Whereas schooling for women may be justified in terms of efficiency (high individual private market returns), social externalities (e.g., better health and education of children and a slower growth in population), and equity (an increase in the productive capability of poorer individuals relative to richer individuals) (Schultz, 1995), the present study makes the "social externalities" central to the process of rural development by addressing the important intersectoral linkages among rural women's education, their families, and their communities.

Implications

The findings of this study have important implications for researchers and practitioners.

(1) Educational content for rural women should be made more relevant to their particular existence and needs. Too many women regard schooling as irrelevant to their needs. Basic skills (reading and writing) should be combined with site-specific information on improved vocational practices. Local participation and control can help to assure that educational programs are contextually relevant.

(2) The present study finds that when parents face economic difficulties, they usually respond by removing their daughters from schools (participants reported this as being the number one reason for dropping out of school). It is necessary that parents of rural girls revalue the importance of education to the lives of their daughters. One way in which this might be accomplished is for educational programs to have a large component of occupational skill development which would have a direct link to employment opportunities. The government should consider appropriate incentives and small loans for travel costs and clothing/uniforms. Although this solution addresses the manifest symptoms of the problem and not the underlying societal attitudes that prompt parents to remove girls from schools in the first place, it might well be the most effective way to get parents to first change their actions which might eventually lead to a change in underlying attitudes. Also, research has often shown that many societal attitudes towards girls and women are actually driven by economic forces.

(3) Active involvement in education is desired and should be encouraged through village education committees in the development, monitoring, program implemen-

tation, and service delivery of educational programs. Constraints (bureaucratic and resource-based) at district/state levels should be mitigated by decentralized flexible implementation programs, by the formation of community groups, and people's participation in the management of these programs including village input to teacher selection.

(4) A common complaint of key informants (village heads, extensions workers, and the Block Development Officer) is that there are not enough local women who are qualified to be appointed as teachers. Urban based teachers posted in rural areas do not live in the village to which they are posted and must travel to rural areas at their own expense. As a consequence many teachers minimize their presence in the rural areas resulting in a minimum of time spent with students and a high rate of teacher turnover.

(5) Access to secondary and university education for poor residents of rural areas is problematic. Girls who have completed primary school and who show special promise as leaders or teachers should be encouraged to continue their schooling. Appropriate financing of the costs of boarding, lodging, fees, and materials needs to be provided. Consideration should be given to grants, community-based scholarships or loans which could be repaid through future service to their home village or region. This would encourage women teachers to stay in the area and become indigenous forces for community development.

(6) Respondents as well as other key informants report that teachers are poorly motivated to teach rural adults and often display negative attitudes towards the students. Since poor motivation and negative attitudes appear to be a manifestation of teachers' discontent with the system, we recommend some sort of system reform that would directly address adequate incentives and remuneration for teachers.

(7) Improved coordination between policy-level and community action-level is needed. In monitoring and evaluation of educational programs, government functionaries should involve voluntary agencies working for women, mahila mandals (women's organizations), and representatives of rural women, to obtain current information on social indicators, standards and benchmarks.

(8) Finally, we suggest that developing countries like India need to consider adopting the family literacy approach for meeting the educational needs of disadvantaged rural women and children. Not only does this approach tap into the important links between family, community, and development, but it also presents an economical strategy for targeting two groups simultaneously and utilizing resources efficiently.

Educational programs that are functional, multipurpose, and participatory are the ones that rural women most value. Unfortunately the state-supported formal education systems remain substantially unchanged and resistant to parental involvement, especially the involvement of disadvantaged, illiterate parents of the rural areas.

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