

Introduction

In the decade since the ICPD galvanized attention to the role of gender inequality and women's empowerment in shaping demographic processes and outcomes there has been an acceleration of conceptual and empirical work on this issue as well as continued policy interest. One of the United Nations Millennium Development Goals, for example, is to "Promote gender equality and empower women" (United Nations 2004). Many international bilateral and multilateral donors, such as the World Bank, now include women's empowerment as an element in their health and development assistance strategies. Important conceptual progress has been made (see reviews Presser and Sen, 2000 and Malhotra et al, 2002) to support these efforts, but the empirical evidence regarding the measurement of women's empowerment is still lagging behind. Quite a number of international studies have operationalized the concept of women's empowerment to test hypotheses linking empowerment with family planning and fertility outcomes and some have linked empowerment with other aspects of women's health, yet the conclusions from this body of research remain unclear – in no small part because of the methodological challenges involved. Much of the work around empowerment measurement has focused on content validity – whether, for example, the domains of empowerment are adequately covered. Needed still is more empirical work that tests the extent to which and how these domains can be translated into operational indicators and how they perform over time.

In this paper we use detailed cross-sectional and longitudinal data from 1994 and 2002 to explore the validity of eight indicators of women's empowerment. Specifically, we examine changes over time in women's empowerment scores and their health and development correlates. To our knowledge, this study is the first to make use of detailed longitudinal data on women empowerment.

Background

Need for direct measures. Many studies of the relationships between gender and economic or demographic change have used proxy variables such as education or employment to capture the concept of women's empowerment, variables that actually measure women's resources or capacities. The results of such studies have been inconsistent and sometimes misleading (Govindasamy and Malhotra 1996; Mason et al. 1997). A number of other researchers have addressed this problem by using more specific measures of women's participation in decision-making, control over resources, and other behaviors demonstrating women's agency (e.g., Hashemi and Schuler 1993; Hashemi et al. 1996; Malhotra and Mather 1997; Mason and Smith 2000), but it is unclear the extent to which these more specific measures are valid, especially over time.

Need for multiple measures. Studies have also shown that women may be empowered in one area of life while not in others (e.g., Beegle et al. 1998; Hashemi et al. 1996; Kishor 1995, 2000; Malhotra and Mather 1997), and that various aspects of women's empowerment (e.g., decision-making authority vs. mobility) may have different determinants (Balk 1997). Researchers must therefore use care in constructing index or scale variables relating to empowerment. Such variables may mask differential effects of interventions on distinct aspects of empowerment, and differential effects of the component variables on outcomes of interest (Ghuman 2003). At the

same time a single indicator is usually insufficient to measure even a specific dimension of empowerment (Estudillo et al. 2001; Kabeer 2001a; Kishor 2000). Additional information is usually needed to interpret data on any given indicator to judge whether the indicator in fact reflects women's empowerment (Malhotra et al. 2002).

Need for measurement approaches that capture process. Although empowerment is usually described as a process, most published studies on empowerment look only at cross-sectional correlations of empowerment indicators with other variables (Malhotra et al. 2002). (Two exceptions are Kabeer (1997; 2001a) and Mayoux (1991), who have used retrospective interviews to understand changes over time.) Longitudinal data on detailed indicators have not been available.

Following Kabeer (2001c), we define empowerment as “the expansion in people's ability to make strategic life choices in a context where this ability was previously denied to them.” Thus we view women's empowerment as a process involving women's agency--their ability to define their own goals and act upon them. In an early review, we identified six inter-related areas of life in which women's empowerment was thought to be occurring in rural Bangladesh as a result of recent policies, programs, and political action. These “domains of empowerment” were: sense of self and vision of a future, mobility and visibility, economic security, status and decision-making power within the household, ability to interact effectively in the public sphere, and participation in non-family groups. Between 1992 and 1996, we explored these aspects of life through qualitative research. In 1994 we also conducted a survey among representative samples of married, reproductive age women with and without access to credit programs to investigate relationships between access to microcredit, women's empowerment, and family planning. The domains and indicators of empowerment that we developed as part of this research (see below) have been widely cited, and many of the survey questions we developed for measuring empowerment have been incorporated into other surveys (e.g., Amin et al. 1996; Govindasamy and Malhotra 1996; Rahman 2001).

The present paper

In 1994 we conducted a survey of all women of reproductive age in 6 rural villages in Bangladesh. Eight indicators of women's empowerment based on several questions each were used in this survey in which we also measured women's access to resources such as education and microcredit and women's reproductive health outcomes such as use of family planning.

The eight empowerment indicators consisted of:

Political and legal awareness. Respondents were asked the names of their local government representative, a Member of Parliament, and the Prime Minister. They were also asked what share of property a son vs. a daughter should receive according to law; and they were asked to explain the significance of registering a marriage.

Mobility. The respondent was presented with a list of places (the market, a medical facility, the movies, outside the village) and asked if she had ever gone there with others or alone.

Ability to make small purchases. Respondents were asked if they are able to make certain purchases without their husbands' permission, including items used in family food preparation (kerosene oil, cooking oil, spices), small items for themselves (hair oil, soap, glass bangles), and ice cream or sweets for their children. They were also asked if the purchases were made at least in part with money that they themselves earned.

Ability to make large purchases. Respondents were asked about their ability to purchase pots and pans, children's clothing, saris for themselves, and the family's daily food and whether any of this was purchased with money they themselves earned.

Involvement in major decisions. Respondents were asked about their involvement in household decisions (individually or jointly with the husband) within the past few years related to house repair, whether to raise a goat for profit, whether to lease or buy land, or to buy a boat or bicycle rickshaw. Again they were asked if money they themselves earned was used.

Participation in public protests and political campaigning. The respondent was classified as "empowered" if she had campaigned for a political candidate or had gotten together with others to protest: a man beating his wife, a man divorcing or abandoning his wife, unfair wages, unfair prices, misappropriation of relief goods, or "high-handedness" of police or government officials.

Freedom from domination by the family. The respondent was asked if, within the past year, (a) money had been taken from her against her will, (b) land, jewelry or livestock had been taken from her against her will, (c) she had been prevented from visiting her natal home, or (d) she had been prevented from working outside the home.

Economic security. Respondents were asked to indicate their personal ownership of 3 specific assets that could be used for productive ends: any land, the homestead land, or the house; productive assets, such as a sewing machine; and cash savings.

In 2002 we resurveyed these women, as well as all other women in the 6 villages below age 50. We administered the same set of empowerment indicators and measures of family planning use, credit program participation and education. Of the original 841 women interviewed in 1994, 610 were re-interviewed in 2002. The total sample size for the 2002 survey was 1,212.

The repeated measurement of specific empowerment indicators allows us to reassess their validity and the potential for these and other, similar indicators to be used to evaluate change over time. In the present analysis we use these two samples and the embedded cohort to accomplish three things:

1. We compare the prevalence data on the empowerment indicators between 1994 and 2002 – cross-sectionally and among the cohort only. We identify changes over time and the degree of co-variance in the individual indicators.
2. We compare the correlates of empowerment (micro-credit and education) in 1994 and 2002, and examine the association between these factors and changes in empowerment over time among the cohort.

3. We compare the association between empowerment and family planning use in the 1994 sample with that in the 2002 sample to determine the extent to which the empowerment scores remain salient predictors of family planning.

We found that between 1994 and 2002 overall empowerment increased both in the aggregate (cross-sectional samples) and among the cohort. Where women's scores did not improve it usually had to do with financial resources. Within each indicator we found specific items or types of items that did not behave consistently, suggesting that all of the questions in that domain were not tapping the same latent construct. Some indicators were more strongly correlated with others, although factor analysis suggested a one-factor model. We also found that the correlates of women's empowerment, both "upstream" (education and microcredit) and downstream (family planning use) varied between the two survey years. This does not necessarily suggest that the indicators themselves are not valid, but rather that their utility for monitoring change over time may be limited. It also supports the multidimensionality of empowerment and the fact that various dimensions may have different determinants and consequences. Our results feed back into important conceptual questions about whether empowerment is an absolute or relative construct, and about whether operational indicators should/do function as markers of existing empowerment or as markers of phenomena expected to be *empowering*.