Son preference, family composition, and sterilization among young married women in Bangalore, India

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Background

The effect of son preference on demographic behavior is a topic of long-standing interest to demographers and social scientists. Research in this area has concentrated on two main aspects of the relationship between son preference and other social and demographic concerns. The first focuses on distortions in sex ratios, sex-selective abortion, excess female child mortality, and other forms of female disadvantage in child health and nutrition that arise due to a desire for sons. The second area of research centers on the relationship between son preference, the rate of fertility decline, and contraceptive use. This literature has largely focused on the ways in which son preference affects women's decisions regarding contraceptive use (e.g. Clark 2000); some authors have also discussed the potential for son preference to stall fertility decline (e.g. Bhat and Zavier 2003; Dreze and Murthi 2001) and, conversely, the potential for fertility decline to intensify prenatal and postnatal discrimination against girls as parents strive to combine a desired small family size with a desire for sons (e.g. Das Gupta and Bhat 1997).

For more than one hundred years, the Indian census has shown a marked gap between the number of boys and girls under the age of 5 years, suggesting excess female child mortality (Banthia, 2001). The son preference that underlies this gender-based discrimination is a long-standing feature of Indian society, with references to it in religious texts as far back as 800 B.C. In a recent nationally representative survey, 25% of women reported wanting more sons than daughters and 81% reported wanting at least one son. More than three quarters of women (77%) also want at least one daughter, but only 2% say they want more daughters than sons (IIPS, 2007).

Son preference in India arises from the perceived economic, social, and religious utility of sons compared to daughters. The behaviors resulting from these preferences have important implications for reproduction and family composition. Research in India and elsewhere has documented the role of son preference in slowing the transition to low fertility, as couples bear children until they have sufficient boys (Leone et al., 2003; Clark 2000; Das Gupta and Bhat, 1997). Scholars have also examined the effect of son preference on family composition through its manifestation in gender differentials in child health and mortality, and sex-selective abortion (Pande, 2003; Murphy 2003; Arnold et al 2002; Oomman and Ganatra 2002).

A large body of research in India highlights the north-south variation in gender-discriminatory practices, where northern states are known for very unequal gender norms and high discriminatory practices against girls and women (see e.g. Jayaraman et al., 2008). Southern states, however, have also recently shown increased discrimination against females, as reflected in worsening child sex ratios (1991 and 2001 Census). Discriminatory practices based on son preference can be prenatal or postnatal in nature, manifesting in skewed sex ratios at birth from a practice of sex-selective abortions of female fetuses, infanticide, and neglect of the girl child leading to excess morbidity and mortality.

This paper focuses on the relationship between son preference and the decision to permanently end childbearing through sterilization among young married women in urban slums of Bangalore, southern India. The paper contributes to the existing literature on son preference and contraceptive behavior in four key ways. First, we focus not just on how son preference affects women's reproductive choices, but on how son preference interacts with the current sex composition of her children to affect these choices. A growing literature from South Asia convincingly demonstrates that women's reproductive behavior reflects both a preference for sons and a conceptualization of an idea family composition that includes daughters (Hussain, Fikree and Berendes 2000; Muhuri and Preston 1991; Pande 2003). This implies that how a woman shapes her childbearing can depend not just on whether she wants sons, but also on how many children she already has, of what sex, and how many more she wants, and of what sex. Second, while a large number of studies have found some evidence of the effect of son preference on sterilization decisions (e.g. Zavier and Padmadas 2000; Padmadas et al. 2004), few have addressed this question directly, with most recent research focusing on sex-selective abortion. This is puzzling given the very important role that sterilization plays in India and the recent focus of research on the effects of the compression of women's reproductive life spans and fertility decline on sex ratios at birth (e.g. Padmadas et al. 2004; Das Gupta and Bhat, 1997). Third, we focus on an under-studied population about who relatively little is known in terms of reproductive behavior – young, poor, urban married women. Lastly, we are able to employ a prospective study design to examine this relationship, using data from two points in time. We are therefore able to ensure that the sterilization decision is modeled based on women's characteristics prior to the decision, rather than relying on cross-sectional characteristics that may reflect their circumstances *after* the decision has been made.

Setting and data

The setting of this study is Bangalore (also known as Bengaluru), the capital of Karnataka, a state in southern India. Nearly 53% of the urban population of the state is of reproductive age (aged 15–49) and marriage is nearly universal (97% of women aged 15-49 had ever been married). Most marriages are arranged, and the dowry system prevails. Virginity is highly valued and more than half of women aged 20-24 were married before age 18. Women are more than twice as likely to be married before age 18 then men, and 75% of women aged 20-24 are not educated (IIPS, 2007). The most prominent method of controlling fertility is female sterilization, with relatively low levels of use of temporary methods. Women in Karnataka tend to not use any contraception before sterilization (90%) and tend to get sterilized at fairly young ages (at 23.3 years on average) (IIPS, 2007).

The specific geographic focus of this study are two low-income communities in Bangalore classified as "slums" by the Bangalore municipal government. Both communities were originally established in the mid-twentieth century when trade and employment opportunities drew large numbers of migrants from the neighboring state of Tamil Nadu into Bangalore (Nair 2005). These slum communities have continued to

grow and are now home to roughly 500,000 people, or almost one-fifth of Bangalore's population.

The data used in this study are part of a multi-year study on gender, power and reproductive health conducted from 2002 to 2008. Women were recruited via a network of 55 government primary health centers serving these communities based on convenience sampling, with data collected on them at three points in time (at baseline, midline and endline)[1]. Only currently married women between the ages of 16-25 were included in the sample. Enrolled women participated in face-to-face interviews conducted in private rooms in the health center by trained interviewers. The survey included information on sociodemographics; household and relationship characteristics; economic activity and assets; sources of social support; their marital relationship, childbearing and health.

A quarter (25%) of women were sterilized at baseline. The youngest study participants being sterilized were age 18. Of the women not sterilized at baseline, 23% (n=93) were sterilized between baseline and endline surveys, increasing the number to 43% of all participants who were sterilized at endline. At baseline, about a third of women (30%) had one child, another third (32%) had two children, and 17% had three children.

Analytical Approach

In order to examine the role of son preference and family composition in shaping women's decisions regarding sterilization, we use data from both all three waves of data collection. We use a discrete-time event history modeling approach to examine the determinants of women's sterilization behavior, using the three waves of data collection. The key dependent variable in our analysis is a dichotomous variable indicating whether a woman was sterilized, using logistic regression. We use a mixture of time-varying variables, such as age, and variables whose value is constant over the study period, such as age at first marriage or religion.. The key independent variable in our analyses is a time-varying measure of the sex composition of a woman's surviving children, using a categorical variable for no children, girl(s) only, and any son(s). We also control for a number of the characteristics of the woman and her household. The woman's characteristics we include are: her age, education, training and work before marriage, variables measuring her agency in financial, fertility and sexuality domains, as well as the husband's education, pressure on childbearing, and nuclear family structure.

[1] Recruitment took place over a period of six months, with rolling enrolment. Women were then tracked and followed up twice, with visits approximately one year apart.