Pakistani Women's Perceived Spousal Concordance on Desired Family Size and Birth Intendedness

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Abstract:

In Pakistan – a country in the midst of the fertility transition – 16% of all pregnancies are unintended, most of which end in a birth. In mid-transition societies, unwanted fertility is thought to be due to declines in desired family size that are not accompanied by access to family planning; however, gender issues and cultural norms may also play a role by limiting women's reproductive autonomy. In this study, we will use the Pakistan Demographic Health Survey (PDHS) of 1990-91 and 2012-13 to examine how the association between perceived spousal concordance on desired family size and wantedness of fertility has changed over time. In addition to perceived spousal concordance on desired family size, we will also examine the effect of education, as a proxy for power and equality in a couple's relationship, to see whether or not the association between perceived partner fertility desires and intendedness of pregnancy/birth is modified by education.

Introduction

Regardless of their intentions to stop childbearing or delay their pregnancies for sometimes, women in many countries have more children than desired. In recent decades, a desire for a smaller family is growing among couples due to increased urbanization and socioeconomic opportunities. Pakistan, the 6thmost populous country in the world, is experiencing this shift in desired family size, accompanied by a decline in fertility levels. Fertility has declined from 6 births per women in 1980s to 3.8 births per women in 2012-13, but the decline is slow compared to other neighboring countries (Sathar et. al., 2014; National Institute of Population Studies, 2013). Further, unintended pregnancy has emerged as a problem. According to the 2012-13 Pakistan Demographic Health Survey (PDHS), 16% of all pregnancies are unintended in nature, and most of these pregnancies end in births (National Institute of Population Studies, 2013).

Pakistan is a male-dominated society. Major household decisions, including reproductive ones, are made by the head of the household, usually a male, though sometimes the elder woman in the household makes such decisions. Women, especially those of childbearing age, in traditional societies like Pakistan have to submit to their partner's will, as the husband is usually the sole breadwinner. Evidence of men's power in childbearing decisions can be seen in the fertility and reproductive health surveys which reveal a large discrepancy between women's stated fertility intentions and their actual fertility (Kritz and Makinwa-Adebusoye, 2001: Bankole and Singh, 1998). To some extent, this represents unmet need for contraception, but it may also reflect women's marginalized position and lack of power and resources to exercise authority. In this view, it is important to look at fertility behaviors through a gendered lens.

The objective of this paper is to examine shifts over time in the association between women's perception of their husband's fertility desires relative to their own and the intendedness of women's most recent pregnancy/birth to see how shifts in women's empowerment relates to reproductive behaviors. Pakistan is currently in mid-transition phase. During the shift from high fertility (where individuals both want and have many children) to low fertility (where individuals both want and have few children), fertility desires decline but the ability to limit fertility is not always present, and thus unintended fertility is high. Generally, high unintended fertility during this phase is largely attributed to a lack of access to family planning services. However, we argue that gender issues are also at play, and attention to such issues has largely been overlooked. In traditional societies, even when female education and employment increases, women are not always able to convert their improved socioeconomic position into a more equitable relationship with their partner. As such, women may not be able to fully act on their fertility desires. With improved economic conditions, rise in education level and legal reforms to support gender equality and women empowerment, one might expect spousal preference to change at the same time. However, Pakistan's male-dominated norms and cultural values, along with the continuation of gender disparities within it socioeconomic structures, suggest that fertility preferences may not change at the same time, in the same way, for men and women, which may make women's perception of their partner's fertility goal an important predictor of how women themselves classify the intendedness of a birth.

Background

Unintended pregnancy is a critical public health issue especially in developing countries. Research shows that unintended pregnancies have detrimental effects on maternal outcomes as well as maternal and child well-being (Mohllajee, Curtis, Morrow, & Marchbanks, 2007; Joyce, Kaestner, & Korenman, 2000). The Demographic Health Surveys (DHS), World Fertility Surveys (WFS), and several other fertility surveys conducted in developing countries provide detailed empirical evidence of high levels of unwanted childbearing in recent decades (Sedgh et al., 2014; Singh et al., 2010; Westoff 1991; Bankole and Westoff 1995).

Fertility can decline if unwanted pregnancies are checked, but without significant declines in desired family size, fertility transition cannot reach the stage of replacement level. Historical progress of an agricultural society to an industrial society results in socioeconomic development of a kind which reduces desired family size, according to conventional demographic theory (Notestein, 1945, 1953). This theory holds that parents want fewer children when the costs of having children increase and the benefits decrease as a consequence of development. Reduced child mortality removes uncertainty and the need to have more children, and formulating – and reaching – a desired family size becomes easier for parents (Bongaarts, 2011). This theoretical framework helps to demonstrate that a couple's rational and conscious decision-making leads to reduced family size. Couples weigh the benefits of having more children against costs, which forms the basis of their individual desired family size. However, individuals' personal desires are not the only influences on their reproductive behavior.

This is particularly true when one takes a gendered lens to reproduction in developing countries. Theories of demographic change (i.e., classic demographic transition theory, wealth flow theory, and the diffusion innovation theory) generally emphasize population decline as achieved through declining mortality and fertility. Many scholars highlight the fact that demographic research has ignored the role of societal gender systems in shaping the reproductive attitudes and behaviors of men and women (Presser, 1997; Mason, 1997). The societal gender system is actually critical for fertility research because, as Mason (1997) notes, it comprises the

"entire complex of interactions, roles, rights and statuses that surround men and women in a given society or culture." It is often assumed that couples have common shared interests, but what matters more to individuals is a function of gender and hence it is different for men than for women (Thomson, 1997; Dodoo and Frost, 2008). Contextual reality is, therefore, as odds with the theoretical frameworks. Theory sometimes falls short of taking into account that, within a particular society or a culture, significant differentials exist between the relative control and authority of men and women over most matters, including sexual preferences and reproductive decision-making.

Power differentials by gender may be particularly important for reproductive decisions in developing countries. In societies where patriarchal systems prevail and where men are the main decision-maker, such as Pakistan, men's attitudes and desires toward fertility shape the fertility outcomes of the couple (DeRose et al., 2002; Mason & Smith, 2000). For example, Ezeh (1993) studied how partners affect each other's attitudes toward contraception in Ghana, observing that the wife's attitudes and preferences regarding contraceptives were in fact a mirror of the husband's attitudes and preferences and not the other way. This shows the relative dominance and authority of a husband that may result from women's economic dependency on their husbands and their low status.

Although there is considerable evidence that men's authority, desires, and intentions about childbearing affect women's fertility and childbearing intentions, the primary focus of fertility research remains to on women, in the sense that fertility data is generally only collected from women and women/mothers are the unit of analysis (Dodoo and Frost, 2008; Thomson, 1997; Lundgren, 2005). Thomson (1997) argued that it is advantageous to include men in fertility behavior research as she found that husband's desires and intentions matter, and the potentially asymmetrical nature of spouses' intentions warrants data collection for both spouses. In the absence of such data, getting indirect data on men's preferences – by asking women about their perceptions of their partner's beliefs – may provide another way to evaluate the gendered nature of fertility decisions. Some prior research has demonstrated that wives' report of their partners' fertility preferences are not problematic (Morgan, 1985; Korenman et al., 2002; Williams, 1994; Khan et al., 2007; Diro and Afework, 2013). Further, even if women do not accurately perceive or know their husband's fertility preferences, it may be that women's *perception* about their partner's attitudes is more relevant for shaping women's own fertility behavior and outcomes (Bankole, 1995; Ezeh, 1993). Several studies found that contraceptive use is low when women perceive that their husbands disapprove of family planning (Casterline et al., 2001; Mbizvo and Adamchak, 1991). Lack of spousal communication (Lasee and Becker, 1997) and education may also inhibit women's ability to accurately perceive their partner's fertility intentions and desires, and as such, unwanted fertility (as reported by women) may be high if women perceive that their husbands want more children than they do.

The lack of attention to gender is especially problematic, given marked improvement in women's education and employment. It is believed that education provides women the resources and enables them to make informed choices (Jejeebhoy, 1995). The level of female education has risen in recent times, as government interventions in various societies have led to significantly improved access to education. Attention to women's perceived partners' fertility desires and their influence on their reproductive behavior will help in understanding the gender norms and relations in light of improvements in female empowerment – that is, whether women's empowerment is transferring into their reproductive life sphere or not. Research on fertility transition has generally overlooked the role of power and control as determined by gender in

various contexts which results in a certain lack of clarity regarding reproductive decision making in different social and cultural contexts. This may prove especially informative in light of the apparent stall in the fertility decline in Pakistan that is occurring even as women's socioeconomic position is improving.

In this paper, we will use the wife's report of her husband's fertility desires as a proxy for the husband's reports to see how this perception affects the intendedness of the most recent pregnancy/birth. The outcome of interest in this analysis is the intendedness of most recent pregnancy/birth, which is asked only of women. Borrowing from prior research literature, we hypothesize that the odds of an unintended birth will be higher in cases when wife reports that her husband either wants fewer or more children than she does relative to cases in which the wife reports her husband wants the same number of children.

In addition to perceived spousal concordance on desired family size, we will also examine the effect of education, as a proxy for power and equality in a couple's relationship, to see whether or not the association between perceived partner fertility desires and intendedness of pregnancy/birth is modified by education. Bongaarts (2003) observed that gap in wanted fertility declines with education but disparities in unwanted fertility widen with education. With the change in gender roles and the diffusion of small family ideals over the last two decades in Pakistan, we expect that education will have a depressing effect on fertility by changing the attitudes and behaviors of men and women. Education exposes women to new ideals and alternative life studies by providing economic opportunities to pursue goals other than childbearing (Uchudi, 2001; Martin, 1995; Jejeebhoy, 1995). Formal education promotes the discussion and use of family planning methods by increasing the degree of communication between spouses (Martin 1995). Educated couples are better able to communicate with each other with regard to the use of contraceptives as compared with couples who have a low level of education (Uchudi, 2001; Hindin, 2000).

Moreover, we hypothesize that the education gradient will be stronger in the 1990s than in 2013 in explaining the association between wife's proxy report of husband's desired family size and intendedness of the recent pregnancy/birth. We expect this because education levels were lower in the 1990s, making higher levels more rare and perhaps more influential for individual women. As education expanded, higher levels of education are more common for women, and further, women's status more generally has improved, perhaps weakening the impact of individual education level.

In addition to education, other factors affect unintended fertility. In many developing countries, research results show that unintended pregnancies are positively related with maternal age and the number of previous pregnancies and births (Adetunji 1997, Adikari et al., 2006, Shaheen et al., 2007). Intendedness is also strongly and inversely related to the age of youngest child (Kotzi et al., 2010; Rindfuss and Bumpass, 1975). Research also suggests that rural women are more likely to have more children than urban women, and the risk of unintended pregnancy/birth is higher among women belonging to low socio-economic strata (Finer and Henshaw, 2006). Gipson and Hindin (2005) observed that likelihood of reporting a mistimed birth is higher among women whose husbands are literate in Bangladesh. Gender preferences are a strong predictor of reproductive behavior and intentions of the couples, with son preferences generally increasing fertility, fertility intentions, and unwanted pregnancies (Rai et al., 2014; Hussain et al., 2000).

Data and Methods

Data for this study come from the Pakistan Demographic Health Surveys of 1990-91 and 2012-13, nationally representative surveys undertaken to yield information on socioeconomic, demographic and health characteristics of women. This is the only national level survey in which questions on intention of pregnancy/birth are asked. In this study, our focus of analysis are women aged 15-49 years who had a birth five years preceding the survey or those who were pregnant at the time of survey, as birth intendedness is only collected for currently pregnant women and those who had given birth five years preceding the survey. Of the 6,611 ever married women in the PDHS 1990-91, we excluded those with no birth in the five years preceding the survey and were not currently pregnant (n=2,308). We restricted our analysis to the most recent birth to avoid recall error; yielding 4,303 women aged 15-49 for the PDHS 1990-91. As the focus of analysis is the wantedness of most recent pregnancy/birth, we excluded those women for whom information on intendedness of recent pregnancy/birth, we excluded those women for whom information on husband's desire for children (discussed below) is missing (n=140). Therefore, the final analytical sample for the PDHS 1990-91 is 4,049 women.

Similarly, for the PDHS 2012-13, of 13,558 ever married women aged 15-49, we excluded women who had not experienced any birth five years preceding the survey and were not currently pregnant (n=5,635). We also excluded those women for whom information on intendedness of recent birth or current pregnancy is missing (n=474) as well as women for whom information on husband's desire for children is missing (n=358). Excluding these women yielded a sample of 7,091 women aged 15-49 for the PDHS 2012-13.

We pooled the PDHS 1990-91 and PDHS 2012-13 women data for this analysis. The main objective of pooling the datasets is not only to increase the sample size to obtain more

precise estimates but also to investigate the effect of time. The gap of more than twenty years between two surveys facilitates to observe change in gender relations to affect reproductive intentions and decision making. To capture the structural change over time, we will include survey year as a dichotomous variable (with 1990-91 as reference category) in our multivariate analysis.

The dependent variable is intendedness of most recent pregnancy/birth, which is asked only of women. The DHS asks women "At the time you became pregnant with (name), did you want to become pregnant then, did you want to wait until later, or did you not want to become pregnant at all?" As the concern is with the intention of most recent pregnancy/birth, we measure the dependent variable as dichotomous, with 0 for intended pregnancy/birth (respondent reports that she wanted to become pregnant) and 1 for unintended pregnancy/birth (respondent reports that she wanted to wait or she did not want to have any (more) children at all).

Our two main independent variables are perceived spousal concordance on fertility preferences and women's education. Perceived spousal is measured by the question: "Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?" The variable is categorized into four categories: same number of children (reference), more than wife, fewer than wife, and don't know. Education is measured by the wife's educational attainment level, categorized by four categories: no education (reference category), primary education (grade 1-5), secondary education (grade 6-10), and higher education (grade 11 & above). The rationale behind this categorization is that in Pakistan, the majority of the women are uneducated, and very few women have college education (National Institute of Population Studies, 2013).

We also control for a numbered of other socioeconomic and demographic predictors such as household wealth, wife's age, parity, age and gender of youngest (most recent) child, and region of residence are included as control variables in the analysis. Household wealth is based on information on the wealth index as provided in the PDHS 1990-91 and PDHS 2012-13, constructed from information on household asset data including ownership of a number of consumer durables as well as standard of living and dwelling characteristics (National Institute of Population Studies, 1991, 2013; Mahmood and Bashir, 2012). The index reflects the level of wealth that is consistent with expenditure and income measures and is developed and tested in many countries to measure inequalities in household income and its relation with use of health services and health outcomes (Rutstein and Johnson, 2004; Mahmood and Bashir, 2012). The wealth index originally consists of five categories (poorest, poorer, middle, higher, and highest). For the sake of simplicity, we will merge the poorest and poorer into one category of 'poor' and higher and highest into 'high,' with poor being the reference category. *Wife's current age* is represented by a three category measure: 15-24 (reference), 25-34, and 35 and above. To account for the *urban-rural* differentials, we will include a dummy for urban-rural residence with rural as reference category. Parity (number of children, including the most recent birth) is coded as 1 child (reference), 2-3 children, and 4 and above children. To account for current pregnancies, we will include a dummy for currently pregnant women. Age of the youngest (most recent) child is divided into three categories: less than a year (reference), 1-2 years, and 3 years old and above. Gender of the most recent *child* is defined as 1 if the child is male and zero if the child is female.

Because the dependent variable is dichotomous—intended birth versus unintended birth—we will employ logistic regression to examine the effect of perceived spousal concordance in fertility preference on intendedness of most recent birth.. The logistic regression model is of the form,

$$\ln [(\pi i)/(1-\pi i)] = X'\beta = \sum bi xi$$

where π i is the probability of having a wanted birth, bi are estimated regression coefficients, and xi are the background characteristics, consisting of wife's education, age, poverty, parity, and type of residence.

In the first model, we will regress birth intention on perceived spousal concordance in fertility preference along with survey year. In the second model, we will include the education of the wife. In the third model, we will introduce control variables to examine whether the observed relationship changes. In the fourth and final model, we will consider the interaction between survey year and education to determine whether the education gradient on birth intention is stronger in 1990-91 than in 2012-13.

Preliminary Results

Table 1 shows that majority of pregnancies or birth are intended; however, a substantial proportion of pregnancies/births are reported as unintended in both surveys. The results also show that the percentage of unintended pregnancies has declined between 1990 and 2012 but still 1 in every 4 pregnancies/births are unintended in nature in 2012-13. A high percentage of unintended fertility in Pakistan during 1990 supports the idea that unwanted childbearing is high

at the start of transition; however, the transition is slower than expected as it took more than 20 years for a five percentage point decline in unintended pregnancy.

Table 1 also shows that the percentage of women who perceive that their spouses share the same desired number of children has increased over time. In 2012-13, more than 50% of women reported that both of they and their husband want the same number of children. Interestingly, the percentage of women perceiving that their husbands wants more children than they want has increased by 70% between 1990-91 and 2012-13. This result supports the argument that desired family size decline earlier for women than men when the transition starts. The percentage of women who reported that they do not know about their husband's fertility desires declined substantially, from 35% in 1990-91 to 10% in 2012-13, indicating that over time spousal communication about reproductive matters has increased in Pakistan.

Table 2 shows the distribution of perceived spousal concordance among those women who characterized their most recent birth as unintended across the two surveys. In both time periods, about half of all unintended births occur to women who report that both they and their husband want the same number of children. However, we also see a shift in the distribution of the other categories. In the most recent time period, over a third (34%) of unintended births are to women who report their husband wants more children than they do. This proportion increased as expected across the two surveys, doubling from 17% in the earlier time period. The percentage of unintended fertility attributable to women who reported not knowing their spouse's fertility preferences declined from 29% in 1990-91 to 6% in 2012-13.

Conclusion and next steps

Unintended fertility has largely remained a neglected area of research in Pakistan. This research study will not only fill the gap in existing literature but also provide information on relationship between women's perception of their partner's fertility goal and intendedness of pregnancy/birth. These preliminary results support the hypothesis that a woman is more likely to characterize her birth as unintended when she perceives that her husband wants more children than she does. This suggests that despite the improvement in female education Pakistan experienced over the past few decades, many women seem to be unable to assert their preferences even though they seem to be communicating more about fertility preferences (as evidenced by the decline women reporting they do not know their spouse's fertility preferences). In the final multivariate analyses, we will use education as a proxy for power and equality in couple's relationship to see whether education modifies the relationship between perceived partner fertility desires and the intendedness of pregnancy/birth. For the full analysis, we will pool the PDHS 1990-91 and PDHS 2012-13 to investigate the effect of time. The gap of more than twenty years between two surveys will facilitates to observe change in gender relations to affect reproductive intentions and decision making.

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	1990-91	2012-13
Intendedness of recent pregnancy/birth		
Intended	74.8	80.1
Unintended	25.2	19.9
Perceived Spouse fertility preferences		
Both want same	41.5	54.1
Husband wants more	18.6	31.5
Husband wants fewer	5.2	4.8
Don't know	34.8	9.6
Ν	4,049	7,091

Table1: Percentage Distribution of Pregnancy/Birth Intendedness, Perceived Spousal Concordance(with respect to preferences) of Ever Married Women Aged 15-49 by Survey Year

Perceived Spousal Concordance	1990	2012
Both want same	48.5	53.0
Husband wants more	17.2	34.4
Husband wants fewer	4.9	5.7
Don't know	29.4	6.4
Ν	1,021	1,411

Table 2: Distribution of Perceived Spousal Concordance of Those Whose Most Recent Birth was Unintended among Ever Married Women aged 15-49 by Survey Year