

Ambivalent Fertility Preferences: Towards a Better Understanding of Reproductive Desires and Choice

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Measurement of fertility preferences has been a staple of demographic surveys since their inception in the 1950s. These measurements serve multiple purposes, including predicting the future course of fertility and assessing current discrepancies between childbearing desires and outcomes. In developing countries, the latter includes the well-established estimation of "unmet need for family planning" which hinges on a comparison of stated fertility preferences and current contraceptive practice. Estimates of unmet need are among the most utilized results of Demographic and Health Surveys [DHS], and indeed unmet need was recently elevated to the status of Millennium Development Goals [MDG] indicator.

Most demographic surveys -- whether in high-income or low-income settings -- ask a relatively straightforward question to ascertain whether or not the respondent wants to have another child and, if so, how soon. On this basis respondents can be grouped into three categories according to whether they want another child relatively soon, sometime later, or not at all. Virtually all DHS analyses rely on this basic three-category treatment of fertility preferences.

But scholars have long recognized that preferences about childbearing, in common with preferences about most significant facets of family and household, are subject to more uncertainty and ambiguity than this simple categorical treatment acknowledges (Schaeffer and Thomson 1992; Kaufman et al. 199; Luker 1999; Klerman 2000). This inadequacy has been recognized in data collection and analysis in the U.S. In the NSFG, for example, a battery of items probe the respondent's attitudes toward having another child, and these further items allow for a more elaborate treatments of fertility preferences that explicitly represent uncertainty and intensity (Campbell and Mosher 2000; Stanford et al. 2000; Santelli et al. 2003; Santelli et al. 2009). Analysis of NSFG data has revealed that uncertainty and intensity of preferences can be used to predict the likelihood of a pregnancy ending in abortion (Santelli et al. 2009).

Similarly nuanced approaches to fertility preferences are almost entirely absent in survey research in low-income settings during the past three decades (i.e. in the era of the World Fertility Survey and now the Demographic and Health Survey). The researcher is, of course, constrained by the items included in the survey questionnaire. The DHS has made a relatively limited effort to measure preference uncertainty, ambiguity, and intensity. But the model questionnaire for certain phases of the DHS has included at least one item for this purpose. DHS-IV (surveys fielded from

1999-2005) and a few surveys in DHS-V (after 2005) included the following item, asked of all non-sterilized, sexually active women after they were asked the basic preference item (in abbreviated form "do you want another child?"):

“In the next few weeks, if you discovered you were pregnant, would that be a big problem, a small problem, or no problem for you?”

To date there has been little analysis of this item. The only rigorous analysis in the literature of which we are aware is Speizer's (2006) three-country analysis (Burkina Faso, Ghana, Kenya).

In this paper we present the first comprehensive analysis of this DHS effort to allow for more complexity in fertility preferences. We will use this item to explore what we term "ambivalence" about preferences. We make use of data from 41 surveys conducted in 36 countries (see Table 1).

Research Questions

The analysis addresses two questions:

- What is the prevalence of preference ambivalence? That is, how common is it that responses to the above item contradict, or at least weaken, the responses to the basic preference item?
- To what extent can preference ambivalence explain, or deepen our understanding of, unmet need for contraception?

We expect more evidence of ambivalence about the desire to postpone the next birth than the desire to stop childbearing. This hypothesis can easily be investigated.

The second of the two research questions is of policy relevance, given the current reliance on unmet need for contraception as an indicator of success/failure in the reproductive health arena. What factors accounts for unmet need is, naturally, a high priority topic, and a common hypothesis is weak attachment to desires to postpone the next birth or stop childbearing altogether. Indeed, DHS justifies inclusion of the item shown above as follows (from text accompanying the DHS model questionnaire): "This is the only item in the questionnaire intended to measure the intensity of the motivation to avoid or delay having another child. Some of the discrepancy between a woman's fertility preferences and her family planning behavior may be the result of weak motivation to avoid or delay another child." But to date this hypothesis is untested in comparative analysis of DHS data.

Further analysis will take advantage of the large number of countries (36) that encompass substantial diversity in stage of fertility decline, strength of family planning program, social and economic characteristics (e.g. education), and cultural tradition. We will consider how the prevalence of preference ambivalence, and its association with contraceptive use, is conditional on:

- Level of fertility (TFR)
- Strength of family planning program (multiple indicators)
- Schooling (individual- and aggregate-level)
- Religion (individual- and aggregate-level)

On the matter of culture (with religious affiliation as one indicator), we note that responses to the "problem" item may be affected by conversational norms, in particular a norm that one accepts with gratitude whatever is divinely given (such as a pregnancy).

Methodology

As noted above, the item of interest is available in 41 DHS surveys conducted in 36 countries (Table 1). The majority of surveys are in sub-Saharan Africa (26), but Asia, Latin America, and the Arab region are also represented.

We operationalize preference ambivalence as (i) stating a desire to postpone the next birth or not have another birth and (ii) indicating that becoming pregnant soon would present "no problem" or a "small problem". A more complicated operationalization will treat those who want to postpone and those who want to stop differently: for those who wish to postpone, only "no problem" will be taken as indicative of ambivalence, whereas for those who wish to stop childbearing, either "no problem" or "small problem" will be taken as indicative of ambivalence. This more complicated operationalization assumes that having an unwanted pregnancy is intrinsically more consequential than having a mistimed pregnancy.

The analysis required to address the two research questions is straightforward.

1. *What is the prevalence of preference ambivalence?* We will calculate the percentage of women who answer "no problem" or "small problem" among those who state a desire to postpone or terminate childbearing. This is simple tabular analysis.

2. *Does preference ambivalence explain unmet need?* We will compare the prevalence of ambivalence between women who are using contraception and those who are not (among women who want to postpone or stop childbearing). At issue is whether ambivalence is markedly higher among women who are not using.

The further questions articulated above -- i.e. whether the extent of ambivalence is conditional on stage of fertility transition, schooling, etc. -- will be addressed via two types of analysis. First, questions about societal-level conditioning factors will be explored by examining national-level associations between the percentage ambivalent and other national-level indicators (e.g. TFR). Second, questions about individual-level conditioning factors will be examined by estimating within-country regressions in which factors such as age, schooling, and religious affiliation serve as explanatory variables.

First Results

To confirm that the DHS data will support the proposed analysis, we have generated the tabulations summarized in Table 1. The percentages in Table 1 make two important points:

1. Preference ambivalence (as defined here) is relatively common. For example, in 38 out of 41 surveys, ten percent or more of women who state they want no more children then indicate that becoming pregnant soon would present "no problem" or a "small problem". This percentage exceeds twenty percent in 26 surveys.
2. The prevalence of preference ambivalence varies considerably across countries.

References

- Campbell, Arthur A. and William D. Mosher. 2000. "A History of the Measurement of Unintended Pregnancies and Births." *Maternal and Child Health Journal* 4(3):163-169.
- Kaufman, Rachel B., Leo Morris and Alison Spitz. 1997. "Comparison of Two Question Sequences for Assessing Pregnancy Intentions." *American Journal of Epidemiology* 145(9):810-816.
- Klerman, Lorraine. 2000. "The Intendedness of Pregnancy: A Concept in Transition." *Maternal and Child Health Journal* 4(3):155-162.
- Luker, Kristin. 1999. "A Reminder that Human Behavior Frequently Refuses To Conform To Models Created By Researchers." *Family Planning Perspectives* 31(5):248-249.
- Santelli, John, Roger Roach et al. 2003. "The Measurement and Meaning of Unintended Pregnancy." *Perspectives on Sexual and Reproductive Health* 35(2):94-101.
- Santelli, John, Laura D. Lindberg, Mark G. Orr, and Lawrence P. Finer. 2009. "Toward a Multidimensional Measure of Pregnancy Intentions: Evidence from the United States." *Studies in Family Planning* 40(2): 87-100.
- Schaeffer, Nora Cate, Elizabeth Thomson. 1992. "The Discovery of Grounded Uncertainty: Developing Standardized Questions about Strength of Fertility Motivation". *Sociological Methodology* 22: 37-82.
- Speizer, Ilene S. 2006. "Using Strength of Fertility Motivations to Identify Family Planning Program Strategies". *International Family Planning Perspectives* 32(4): 185-191.
- Stanford, Joseph B., Rachel Hobbs, Penny Jameson, M. J. DeWitt and Rachel C. Fischer. 2000. "Defining Dimensions of Pregnancy Intendedness." *Maternal and Child Health Journal* 4(3):183-189.

Table 1: Ambivalence about Fertility Preferences, by Desire to Delay or Limit and by Country

Region:	Year:	Women Who Want to Delay Pregnancy		Women Who Want to Limit Pregnancy	
		% report pregnancy would be no problem	% report pregnancy would be no or small problem	% report pregnancy would be no problem	% report pregnancy would be no or small problem
Asia					
Armenia	2000	21	39	3	7
Indonesia	2002-2003	71	82	44	53
Nepal	2000-2001	7	19	2	4
Philippines	2003	44	68	25	40
Sub-Saharan Africa					
Benin	2001	14	26	11	19
Benin	2006	15	34	11	22
Burkina Faso	2003	20	34	12	20
Cameroon	2004	17	38	10	21
Chad	2004	50	64	46	51
Congo	2007	16	43	9	24
Ethiopia	2000	20	30	8	13
Ghana	2003	16	23	11	16
Guinea	2005	33	42	19	33
Kenya	2003	35	52	19	30
Lesotho	2004	26	40	17	25
Madagascar	2003	26	51	17	29
Malawi	2000	17	29	9	15
Malawi	2004	20	28	13	18
Mali	2001	22	38	13	24
Mali	2006	30	49	16	32
Mozambique	2003	30	48	23	35
Namibia	2000	19	31	13	18
Nigeria	2003	37	53	24	31
Rwanda	2000	13	26	7	13
Rwanda	2005	8	22	5	10
Senegal	2005	23	49	12	24
Tanzania	2004	22	40	12	20
Uganda	2000	9	23	4	9
Zambia	2001	17	26	9	13
Zimbabwe	1999	28	40	15	22
Latin America					
Bolivia	2003	37	58	19	30
Colombia	2000	38	57	31	46
Colombia	2005	33	53	27	35
Dominican Republic	2002	52	70	43	53
Haiti	2000	17	28	7	12
Nicaragua	2001	49	65	23	34
Peru	2000	31	52	16	30
Peru	2004	38	58	18	29
West Asia/North Africa					
Egypt	2000	28	55	7	17
Jordan	2002	27	45	9	18
Morocco	2003-2004	39	49	20	24

Short Abstract

Fertility preferences are known to be subject to uncertainty, ambiguity, and variation in intensity. Yet the extensive analyses of fertility preferences in developing countries (via DHS) have relied on simple categorical representations. In this analysis we make use of an item included in many DHS surveys (41 surveys in 36 countries) that provides one indicator of complexity of preferences: women are asked whether becoming pregnant soon would be "a problem" (none, small, big). This provides a basis for indicators of preference ambivalence. We examine the prevalence of preference ambivalence, and we investigate whether it helps explain unmet need for family planning. The data reveal that ambivalence is common (in excess of 20% of women in most surveys). We also consider whether preference ambivalence varies by stage of fertility decline and by socioeconomic characteristics (e.g. schooling). This is the most rigorous comprehensive analysis to date of preference ambivalence in DHS data.