

## Do Boys Complete the Family: Sex Selection by Choosing When Your Family Is Complete?

### Issue

The phenomenon of Missing Women - that in some cultures there are fewer women than expected – has been much debated since it was highlighted by Amartya Sen in a seminal paper in 1992.<sup>1</sup> Globally, the natural sex ratio at birth (SRB) is 105, however, sex ratios of 120 or even 130 have been observed in some countries such as China, South Asia, or the Middle East, possibly because of sex-selection abortions and female infanticide. While Pakistan’s SRB is 106, this may hide actual son preference in selected population groups. The study explored sex preference different ethnicities in a lower-income urban settlement in urban Rawalpindi.

### Evidence Reflecting Son Preference

A cross-sectional survey of 1556 married women of reproductive age (MWRA) was conducted in November 2017 in the lower-income urban settlement of Dhok Hassu, Rawalpindi that is home to a mix of Punjabi, Pashtun and some Afghan migrant population. We found that women being likely to *have another child if the youngest living child is a daughter*.

1. Families continue to conceive if their last child was a girl. Families with a boy as the last child (58%) have more total children (Table I).

2. *Once they have a boy, their contraceptive use increases* with an adjusted odds ratio (AOR) of 2.018, LL: 1.255, and UL: 3.244 compared to families where the last child is a girl. *This increased FP use holds for all major four ethnic groups.*

3. In addition to higher contraceptive use, *these families use more effective methods*, such as injections, IUCD, or sterilization (Figure 1) if the last child was a boy.

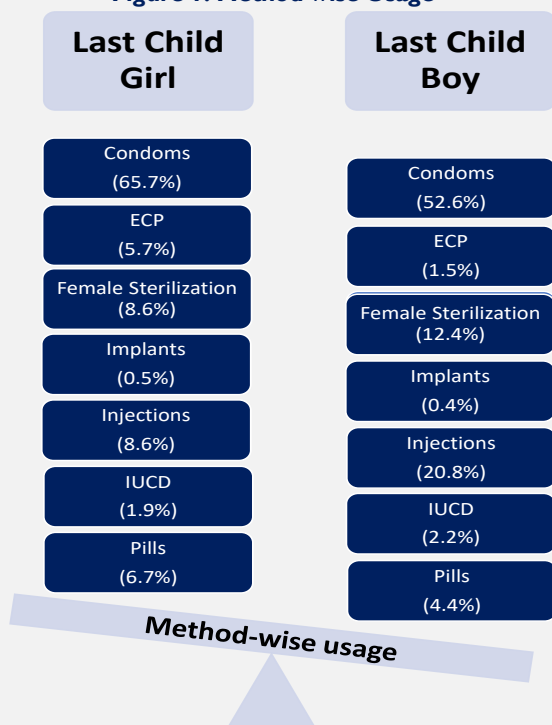
4. Among the surveyed women, literacy rates were low with a mean of 3±3 years of education. Lower literacy of MWRA was associated with higher odd ratio of the last child being a boy – *with a sex ratio of 1.69, compared to 1.10 for women with at least some education* (p-value < 0.001). The sex ratio for all children is which is already 1.16 in favor of boys and increases to *1.39 for the last child* overall and 2.45 for Afghan ethnic households.

This is a study from a poor (median household spending of USD 163 for a six-member household) urban community. It would be useful to explore these findings in other communities, including better-off households and rural communities.

Table I: Respondent Characteristics

Indicator	Last child Boy	Last Child Girl	p-value
	Sample Mean ± SD		
Ethnicity			
Pashtun	56%	44%	0.11
Punjabi	55%	45%	0.14
Afghan	71%	29%	0.00
Other	60%	40%	0.82
Number of live children (total)	4.21	3.95	0.04
Number of Boys	2.6±1.5	1.7±1.5	<0.01
Number of Girls	1.6±1.5	2.3±1.4	<0.01
Youngest Child's gender	58%	42%	
Want more children	40%	53%	<0.01
Contraceptive Usage			
Ever Use	55%	45%	0.02
Current Use	56%	44%	0.58

Figure 1: Method wise Usage



### Interpretation

These findings highlight a relatively less well-described method of sex selection, where couples continue conceive until they have a boy. *In effect, having boys completes families*. While this method may appear more benign, but its pervasive use profoundly impacts sex ratios of children.

While these findings must shape interventions that include counseling of families, more research is needed to better understand these fertility choices and their drivers, across different locations, communities, and ethnicities.

<sup>1</sup> Sen A. Missing women. BMJ 1992;304:587-8. doi: 10.1136/bmj.304.6827.58