Son or daughter:
What is the ideal family in Chi Linh district in Viet Nam?

Extended abstract

Rationale
Viet Nam has experienced rapid social changes over the last decades. A remarkable decline in fertility to below the replacement level has been observed. Bang et al. (2008) has hypothesized explanations for the rise of Sex Ratio at Birth (SRB) in Viet Nam, including the small family size policy, the son preference, the easy accesses to antenatal ultrasound sex-screening and the legalization of abortion (1). The rise of SRB has been noticed since 2000 and was confirmed to be at a high level of 110.6 by the 2009 Population and Housing census. Viet Nam has not yet experienced a deficit in females, but, if effective solutions to balance the SRB are not exerted, this high SRB may cause severe consequences for society in the future (2).

Materials and Methods
Chi Linh district, which locates in the Red Delta River region, has been recognized as the “hot spot” of high SRB in Viet Nam with a SRB of 115.4 boys / 100 girls (2,3). Since 2004, CHILILAB, a community-based periodic Demographic-Epidemiologic Surveillance System, has collected individual and household information from the entire population of seven communes and townships within Chi Linh district. Socio-economics information has been collected every year while information on births has been collected every three months.

The population in Chi Linh includes approximate 64,000 individuals from 18,000 households. We gatherer information on 5,940 single births from 1st August, 2004 to 31st August 2011 and a total of 11 variables are included in analyses: sex of the baby, year of birth, birth place (commune and township), birth order, sex of previous child, mother age, father age, mother education, father education, mother occupation and household economic level (Asset index score was used as a proxy indicator to evaluate household economic status).

The studied protocol was approved by the Hanoi School of Public Health, Committee on Human Research.
Data analysis

SPSS version 16 was used for data cleaning and data analyses. Descriptive analyses, bivariate and multivariate statistics were applied. Median and quintile were used to describe parent’s age, birth intervals (age difference between two children). Chi-square and cut off 95% confidence interval were used to asset the differences among groups by years and by sex of the previous baby.

To compare and analyze the difference in SRBs, a level of 105 boys/100 girls, (CI: 103 – 107) was used as the normal SRB. Bivariate and multivariate statistics were applied to examine factors related to sex at birth for three different groups: (1) all births during the 2004 – 2011 period, (2) firstborn child, (3) second-born and higher-order-born child.

Findings

We assessed 5940 single births from 2004 to 2011. The fertility rate shows a slight difference by years, towns/communes, which, however, are not statically significant. Among the recorded births, 52.8% were boys and 47.2% were girls. Nearly half of the births were first order (47.8%), 44.2% were second order while only 8% were third order or above.

The SRB was at a normal level of 103 during the period 2004 to 2006, (CI: 94–112), but significant higher than normal level, 116.6 (CI: 109.7–123.5, for the 2007 – 2011 period with a peak at 134 (CI: 117.2–153.6) in 2008.

A higher SRB was found statically significant among the richest households (117.8; CI: 107 – 130), the mothers over 35 years old (144.6, CI: 114.1 – 185.3) and the housewives (146, CI: 121.5 – 176.5).

The SRB for the first birth was normal in 2004 – 2006 but increased to 116.7 in the 2007-2011 periods. The SRB was generally normal in both periods for the second child. However, with a value of 123, the SRB was significantly higher than normal range among the second children having an older sister and significantly lower among those having an older brother with a value of 91.4. For the third child, the SRB was already high in 2004 – 2006 and increased drastically in the recent period to reach 173.3.

After adjusting for all other factors, mother’s occupation remain the only factor significantly related to sex of the first child (p=0.007). The odds of having a boy as first child is
1.28 times higher among mothers who are officers (CI: 1.01 – 1.62, p=0.043) compared to farmers or workers. Housewife mothers have 1.48 times higher odds to have a boy as first child than those who are farmers or workers (CI: 1.16 – 1.88, p=0.01).

For the whole period (2004-2011), SRB was found significantly lower than normal among second child if the first one was a boy, 91.4 (CI: 81.8 – 102). A second child with an older sister is 1.46 times more likely to be a boy than one with an older brother (CI: 1.26 – 1.69, p<0.00).

**Conclusion**

A Vietnamese proverb goes: “It would better to have both glutinous rice and ordinary one”, that means people like to have children of both sex. With a population policy that encourages couple to have only two children, family can desire a well-balanced family. The results of our study suggest that sex selective abortion is therefore possibly practiced not only for having a son but also for having a daughter in order to insure a well-balanced family. This observation does not seem to be reported in other countries or by other studies, but if it is proven, the problem of sex-selective abortions takes a new dimension. The question can be asked, is the moral problem even worse if the practice of selective abortion extends to the desire to have a child of the good sex at the right time?

**Reference**