9-6-2012

Sex Selection and Technology In the United States: Is It Playing GOD?

Roberta M. Steinbacher
Cleveland State University, r.steinbacher@csuohio.edu

Audrianna V. Rodriguez
Cleveland State University, A.V.RODRIGUEZ@csuohio.edu

Sex Selection and Technology In the Untied States: Is It Playing GOD?

Dr. Roberta Steinbacher, Audrianna Rodriguez

McNairs Scholars Program, Cleveland State University

ABSTRACT

Preferences for male firstborn children have been well established through research in countries such as India, China, and the Middle East. The effects of this phenomenon have been devastating to these populations' sex ratios and have led to a number of violent crimes against women. Early studies conducted in the United States have indicated that firstborn son preference exists; however, more recent studies indicate a slight trend toward firstborn girl preference.

The current study examines firstborn preference and attitudes toward using technology to achieve the desired sex of firstborn offspring. A sample drawn from the Cleveland State University student body was given a survey to determine male and female firstborn preferences and willingness to use sex selection technology. Our findings revealed an overall preference for firstborn sons. Our findings also showed a trend towards "no preference" for sex of offspring, especially among females. The number of participants who indicated a willingness to use sex selection technology (8%) was to small to calculate any relationship between potential users and firstborn sex preference.

INTRODUCTION

- **Sex selection is defined as attempting to control the sex of offspring through technological advances to ensure the desired sex is achieved by pre- or post-implantation methods.**

Sex Selection Technology

Pre-implantation Genetic Diagnosis (PGD)

- **PGD was originally used to test for sex linked disorders but now is used for sex selection for non-medical reasons**
- **The sex can be determined by DNA amplification or Florescent In Situ Hybridization (FISH) techniques".**
- **"The efficacy of this technique to determine embryo's sex is near 100%".**

Micro Sort

- **Uses a machine (Flow Cytometer) to separate the X and Y sperm sample for artificial insemination or in vitro fertilization.**
- **"The efficacy of this technique is to sort sperm to a purity of 80%-90% for X bearing sperm and 60%-70% purity for Y bearing sperm".**

Post-implantation Technology

- **Selective abortions**

Motivations for Using in Sex Selection

•Economic Bias Favoring Sons

- **•Higher wage earnings for males**
- **• Males tend to be the recipients of a family's inheritance**

•Cultural or Religious Reasons for sex preference

- **•Births of sons elevates the family standing**
- **•Security for parents/ take care of elderly**
- **•Woman takes on name and customs of in-laws**

LITERATURE REVIEW

Examples of Sex Selection Studies Indicating Percent Preference

		Preference for Sex of offspring		
Authors	Sex of Subject	Boy	Girl	No Preference
Dinitz, Dynes & Clark,1954	Male Female	62% 59%	4% 6%	33% 33%
Markle & Nam, 1971	Male Female	80% 79%	4% 12%	16% 9%
Largey,1972	Combined	63%	7%	30%
Rosenzweig & Adelman, 1976	Combined	39%	13%	52%
Rent & Rent	Combined	51%	6%	43%
Calway- Fagen, Wallston, & Gabel, 1979	Combined	73.2%	26.7%	Forced Choice
Steinbacher & Gilroy, 1980	Male Female	46.2% 38.5%	10.4% 15.7%	43.2% 45.6%
Steinbacher & Gilroy, 1983	Male Female	46% 38%	7% 16%	47% 46%
Steinbacher & Gilroy, 1990	Male Female	58% 39%	8% 24%	34% 37%
Steinbacher, Gilroy & Swetkis 2002	Male Female	58% 40%	8% 20%	34% 40%
Dahl at El 2006	Combined	39%	19%	42%

The Current Study

•Our study examined current attitudes toward Sex Selection, that is, are firstborn boys preferred over firstborn girls as in previous studies in the United States?

•We investigated whether or not there is a correlation between sex preference and technology utilization.

METHOD

Participants

- **113 students participated in the study**
- **78 participants were able to qualify for the study**
  - **23 were males**
  - **55 were females**
- **35 questionnaires were eliminated from analyses**
  - **Exclusionary Criteria**
    - **Already have children**
    - **Less then 18 years of age**

Materials

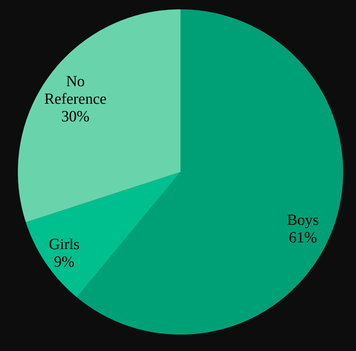
- **Personal Preference And Attitude Scale**
  - **Consisted of 16 questions**
  - **The relevant questions for the study :**
    - **"Do you prefer your first child to be a girl or boy".**
    - **"I would use sex selection technology to select the sex of my children".**
  - **Demographic questions**

Procedure

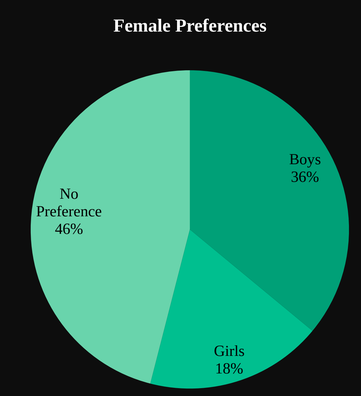
- **Approval was granted from CSU's Institutional Review Board**
- **Letters of inquiry were sent to professors so that the surveys could be administered during class time**
- **Consent forms were signed by participants and questionnaires were then administered.**

RESULTS

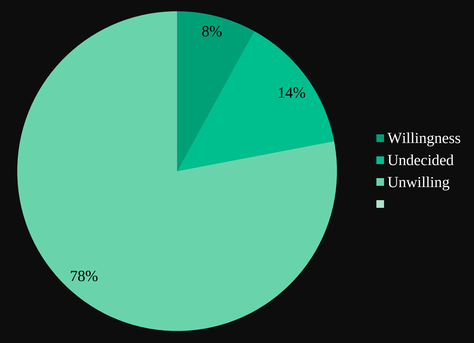
Firstborn Preferences



RESULTS cont.



Participants Willingness to use Sex Selection Technology



REFERENCES

Birdsall, M. (2011). An exploration of " the wild west" of reproductive technology": Ethical and feminist perspectives on sex selection practices in the united states. *William and Mary Journal of Women and the Law*, *17*,223-247

Dahl , E. (2005). Preconceptions gender selection: a threat to the natural sex ratio? . *Law and Moral Philosophy of Reproductive Biomedicine* , *10*, 116-118.

Tarun , J., Missmer , S., Gupta , R., & Hornstein, M. (2005). Pre implantation sex selection demand and preferences in an infertility population. *Fertility and Sterility*, *83*, 649-658