



## Assessment of birth spacing among married women in Southern Karnataka

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### Abstract

Several factors influence maternal and child health, one among which is adequate birth spacing. Studies have shown that a recommended duration of birth spacing is not being observed among a larger population of women of childbearing age. The objective of the current study is to assess the pattern of birth spacing among married women of reproductive age group. A cross-sectional study was conducted in Tilaknagar, Mysore with a sample size of 180. Descriptive statistics like frequency and proportions for data analysis were calculated using R software. Among 180 subjects, only 36.1% of respondents had adequate birth spacing ( $\geq 36$  months) between the first two consecutive children. Among women having a third child, 52.9% had adequate spacing between the second and the third child.

**Keywords:** Birth interval; Spacing

### Introduction

The unchecked and unregulated fertility especially in a developing country like India has demographic consequences.<sup>(1)</sup> Healthy timing and spacing of pregnancy may help reduce the consequences of the health risks for mothers and children.<sup>(2)</sup> Evidence shows that the maternal mortality rate and infant mortality rate increase when pregnancies occur in rapid succession.<sup>(3)</sup>

National Health Mission India, recommends an interval of three years between the last live birth and the next birth, which corresponds to a birth-to-birth interval of 36 months.<sup>(4)</sup>

An appropriate epidemiological understanding of birth intervals in a region may be helpful to policy planners for an appropriate public health program for the region.<sup>(5)</sup> Thus, understanding the practice of birth interval is critical for countries like India with a population policy aiming at population stabilization.

### Objective

To assess the pattern of birth spacing among married women.

### Methodology

A cross-sectional study was done in five wards of Tilaknagar, Mysuru, Karnataka.

Married multiparous women in the reproductive age group with a minimum of two children and a maximum of three children were considered for the study using an eligible couple register.

Informed consent was obtained and a pre-tested semi-structured questionnaire was used to directly interview the study subjects.

The sample size was calculated by Estimation technique for proportion' with a level of Significance (a) = 5%, Allowable error (d) = 10% and the maximum inflated sample size is 177.39 which was rounded off to 180. Liner/Circular systematic sampling method was employed.

Ethical clearance was taken from the ethical clearance committee of Mysore Medical College and Research Institute before conducting the study.

### Results

Married women belonging to the reproductive age group of 15 to 49 years were considered for the study. The mean age of the respondents was 31.83 years (SD 6.498, minimum= 20, maximum= 48).

The majority of the respondents in our study had got married after the age of 18 years (73.3%) and about 59.4% of the subjects had their first child after the age of 19 years.

**Table 1.** Sociodemographic profile of study participants

Variable	Variable category	Frequency (%)
Type of family	Nuclear	133 (73.9)
	Joint	11 (6.1)
	Extended	36 (20)
SES	Class I and II	48 (26.6)
	Class III and IV	132 (73.4)
Education of the respondent	No education	30 (16.6)
	Primary education and above	150 (83.3)
Respondent's occupation	Professional, Semi-Professional and Clerical	23 (12.7)
	Skilled and Semi-Skilled Worker	6 (3.3)
	Unskilled Worker and unemployed	151 (83.8)

SES; Socio-Economic Status

**Table 2.** Obstetric profile of the study subjects

Variables	Variable category	Frequency
Age at marriage	<18 yrs	48 (26.7)
	≥18 yrs	132 (73.3)
Age at first child	<19 yrs	73 (40.5)
	≥19 yrs	107 (59.4)
Menstrual irregularity	Yes	37 (20.6)
	No	143 (79.4)
Unwanted pregnancies	Yes	24 (13.8)
	No	156 (86.2)
Adverse outcome if any	Yes	36 (20)
	No	142 (80)

**Table 3.** Birth spacing between two consecutive live births

Variable	Variable category	Frequency (%)
Birth spacing between 1 <sup>st</sup> and 2 <sup>nd</sup> child	Adequate	65 (36.1)
	Poor	115 (63.9)
	Total	180 (100)
Birth spacing between 2 <sup>nd</sup> and 3 <sup>rd</sup> child	Adequate	18 (52.9)
	Poor	16 (47.1)
	Total	34 (100)

### Discussion

Researchers at the Demographic and Health Survey programme, after assessing outcomes of 4,30,000 pregnancies from 18 countries in 4 regions, found that children born 3-4 years after a previous birth were 2.5 times more likely to survive to age 5 than children born less than 2 years apart.<sup>(6)</sup> Less than half of the women (36.1%) in this study reported optimum birth intervals between the first two consecutive children and this calls for public health attention.

Similar findings were reported by Sanajaoba Singh N et al. in Manipur, wherein >41% of women did not have adequate spacing and the mean duration of birth interval being 34 months.<sup>(7)</sup> Based on analyses of 55 countries, a median birth interval in developing countries was about 32 months.<sup>(8)</sup> The mean birth interval of 33.01 months in our study is close to this figure.

## Conclusion

Intensive family planning education especially to reach newly married couples (Eligible Couples) is the need of the hour, to increase contraceptive use and ensure optimal birth spacing.

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