

PERCEPTION AND AWARENESS ABOUT BIRTH INTERVAL IN A SAMPLE OF WOMEN ATTENDING OUTPATIENT CLINICS OF TEACHING HOSPITALS IN ERBIL CITY



Aziza Sdiq Rasul* and Tariq Al-Hadithi **

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ABSTRACT

Background and Objectives

Adequate child-spacing is considered a positive factor for the health of mothers and their children. This study was done to assess perceptions of women about birth spacing and associated socio-demographic factors.

Methods

A cross-sectional study was done from April 2010 through April 2011 on 500 mothers aged 15–52 years attending outpatient clinics of teaching hospitals in Erbil city. All had given birth to at least 2 children within the last 10 years prior to the study. Data was collected using a questionnaire including socio-demographic information and perception about birth spacing.

Results

Only 25.6% preferred a birth interval of < 3 years, while the rest favored ≥ 3 years. Adequate birth spacing preference was significantly associated with younger age at marriage. Nearly half were not aware of the mortality and morbidity risks associated with short interval.

Conclusion

Women's perception and awareness in Erbil city about birth interval is comparable to that of neighbouring countries. Nearly half of the women lacked awareness of importance of adequate birth spacing.

Keywords: *Birth spacing, Perception and awareness, Iraq.*

*Azadi Family Health Centre, Directorate of health of Erbil, Erbil-Iraq. Correspondence: aziza.sdiq@yahoo.com

**Department of community medicine, College of Medicine, Hawler Medical University, Erbil-Iraq.

INTRODUCTION

Adequate birth spacing is considered a positive factor on the health of mothers and their children ⁽¹⁾. Evidence has consistently shown that a birth interval of 2 years improves the chances of survival of infants and children. However, a relatively new research suggests that a period of 3–5 years is the optimum birth interval, and saves more lives than the ≥ 2 years interval ⁽²⁾.

Analysis of data on more than one million pregnancies in Latin America showed that short birth intervals were independently associated with increased risk of perinatal outcomes ⁽³⁾. Low birth weight (LBW) was significantly associated with birth interval < 3 years ⁽⁴⁾. A research in Scotland has shown that inter-pregnancy interval is an independent risk factor for pre-term delivery and neonatal death ⁽⁵⁾.

Generally, women are uninformed of the mortality risks of annual childbearing. They often understand in general terms that spacing is a healthy behavior, but most do not know that mortality, and morbidity are often associated with short birth intervals, and are preventable ⁽⁶⁾. The above findings are particularly relevant in developing countries where risks of maternal and child morbidity and mortality are high, ⁽⁷⁾ and short inter-pregnancy intervals have been linked to increased risk for preterm birth, LBW, small for gestational age, and maternal morbidity and mortality ^(7, 8). Not only there is lack of data on birth interval in Erbil city, little is known about the perception of women regarding optimum birth spacing or their awareness of the advantages and disadvantages of long and short birth intervals. Therefore, it is important to assess the women's perception and awareness of the effect of birth interval on the health of mother and their babies. Such information would help in developing strategies to promote adequate birth spacing among the local population.

This study was carried out to assess perception and awareness of women in Erbil city about birth interval, and to find out socio-demographic factors associated with preferred birth interval.

SUBJECTS AND METHODS

This is a hospital based cross-sectional study extended from April 2010 through April 2011. A convenience sample of 500 women was obtained from women attending outpatient clinics of the

Teaching Hospitals in Erbil city (Rizgary Teaching Hospital, Raparin Teaching Hospital, Maternity Teaching Hospital and Hawler Teaching Hospital). Data were collected in 1-4 sessions per week. The questionnaire was filled for each woman by direct interview by the researcher (5-15 women were interviewed at each visit). The purpose of the study was carefully explained to each participant. The study protocol was approved by Scientific Committee of the College of Medicine of Hawler Medical University and an informed consent was obtained from all women prior to participation in the study.

Married women aged 15-52 years old who had given birth to at least 2 children during the 10 years prior to the study were included in the study. A closed-ended questionnaire was used for data collection. The data collected included: general socio-demographic information, perception of ideal birth interval and reasons for their choice. The participants were asked specifically about their awareness of certain known benefits related to an adequate birth interval, e.g. regarding height, weight, intelligence and school performance of children, better maternal health and lower risk of infant/perinatal mortality and morbidity.

The occupations were categorized as follows, as recommended by other workers ⁽⁹⁻¹¹⁾:

- 1- Professional as doctors, dentists, pharmacists, engineers, lawyers, large business directors and/or owners, company directors, managers..etc.
- 2- Non-manual skilled or semi-skilled occupations as school teachers, clerical workers, health care workers (other than doctors, dentists and pharmacists) , small business owners, military and policemen.
- 3- Manual partly skilled or unskilled occupations as labour workers, casual workers, unemployed and retired.

Housewives were categorized separately.

Data were analyzed using the statistical package for social sciences (SPSS) version 16. Chi-square test of association was used to compare between proportions and to show the association between preferred birth interval and other categorical variables. P value of ≤ 0.05 was considered statistically significant.

RESULTS

Preference of birth interval

All of the women agreed to participate in the study. Less than half (43.0%) preferred 3-5 years interval, and 8.2% of women stated that they had no preference. These findings are shown in Fig. 1.

Reasons given for preferring a short birth interval (<2 years) included: husband's wish which accounted for 42.4% and easier to take care of children in quick succession (36.4%). These findings are shown in Table 1.

Regarding the reasons given for preferring a longer birth interval, more than half (58%) of women stated that it provides better care for children, (Fig. 2).

Preference of short birth interval (<2 years) was more common among those whose age at

marriage was ≥ 30 years (13.3%) compared to those whose age at marriage was <20 years (5.4%). This finding was statistically significant ($P=0.036$). There was no statistically significant association between preference of birth interval and other socio-demographic characteristics of women, (Table 2).

All participants were asked specifically about their awareness of certain benefits of adequate birth interval. Nearly 65% of the participants were aware that longer birth interval (≥ 2 years) would lead to improvement in the child's height, weight (65.4%), intelligence (68.4%) and school performance (67.8%) as well as lowering the risk of infant mortality and morbidity (53.2%) and decreasing the risk of maternal mortality and morbidity (57.6%).

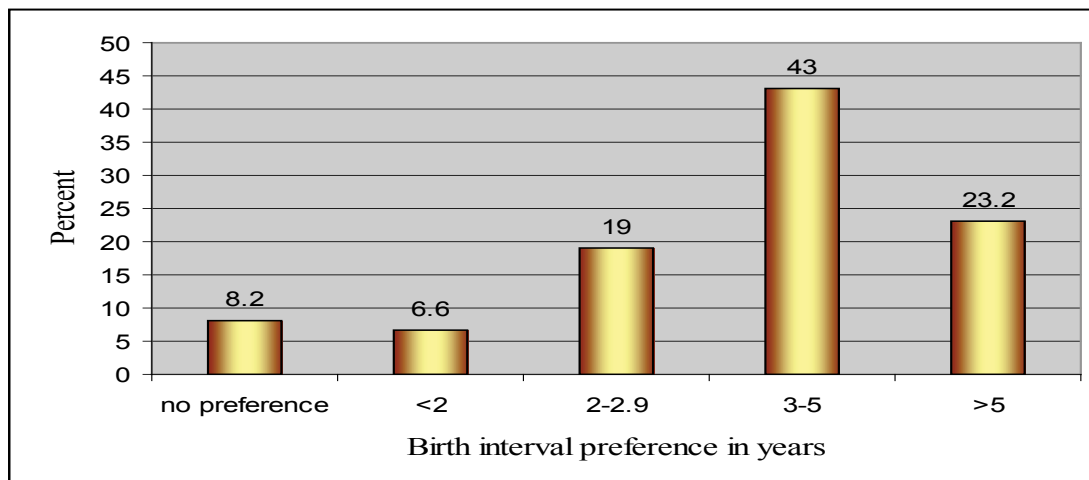


Figure 1. Preference of birth interval.

Table 1. Reasons for preferring a short birth interval (<2 years).

Reason	NO.	%
Husband's wish	14	42.4
Easier to take care of children in quick succession	12	36.4
Dictates of religion	1	3.0
Advanced maternal age	1	3.0
Wanting male baby	2	6.1
Wanting female baby	2	6.1
Easier for delivery	1	3.0
Total	33	100.0

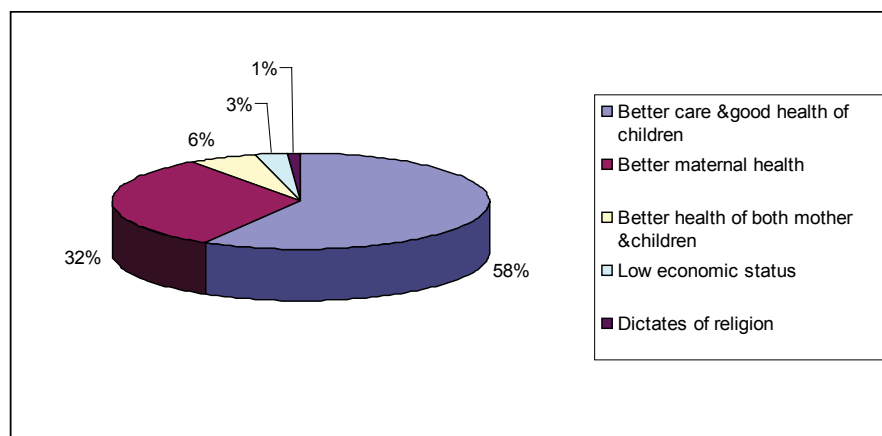


Figure 1. Reasons for preferring a long birth interval.

Table 2. Association of preference of birth interval with certain socio-demographic characteristics of women

Socio-demographic characteristic	Preferred birth interval								Total
	< 2 years		2 -2.9 years		3-5 years		>5 years		
	No.	%	No.	%	No.	%	No.	%	
Age group: ($\chi^2=5.522, P=0.479$)									
≤25	9	8.0	17	15.2	54	48.2	32	28.6	112
26-35	18	7.1	62	4.4	113	44.5	61	24.0	254
≥36	6	6.5	16	17.2	48	51.6	23	24.7	93
Age at marriage: ($\chi^2=13.506, P=0.036$)									
<20	12	5.4	36	16.2	106	47.7	68	30.6	222
20-29	19	8.6	56	25.2	100	45.0	47	21.2	222
≥30	2	13.3	3	20.0	9	60.0	1	6.7	15
Occupation of woman: ($\chi^2=15.096, P=0.088$)									
Professional occupations	0	0.0	4	33.3	8	66.7	0	0.0	12
Non-manual skilled or semi-skilled Occupations	3	5.8	11	21.2	26	50.0	12	23.1	52
Manual partly skilled or unskilled Occupations	2	40.0	0	0.0	2	40.0	1	20.0	5
Housewife	28	7.2	80	20.5	179	45.9	103	26.4	390
Education of woman*: ($\chi^2=12.069, P=0.440$)									
0	10	7.2	30	21.6	66	47.5	33	23.7	139
1- 6	17	7.9	43	20.0	102	47.4	53	24.7	215
7-9	3	7.0	8	18.6	14	32.6	18	41.9	43
10-12	0	0.0	2	13.3	8	53.3	5	33.3	15
≥13	3	6.4	12	25.5	25	53.2	7	14.9	47

* Years of formal education.

DISCUSSION

In many developing countries, poor and especially the marginalized people are uninformed of the mortality risks of annual childbearing. They often understand in general terms that spacing is a healthy behavior, but most do not know that mortality, morbidity, and poor nutritional status are often associated with short birth intervals, and are preventable. Evidence has consistently shown that a birth interval of 2 years improves the chance of infants and childhood survival compared with an interval <2 years⁽¹²⁾.

In this study preference of birth interval was significantly linked with age at marriage, short birth interval preference was more among those who marry at an older age group (≥ 30 years). In some countries, as women tend to marry at older ages, they may want to have children sooner rather than later⁽²⁾. Studies from Ghana,⁽¹³⁾ and India⁽¹⁴⁾ reported similar findings.

Preference of short birth interval revealed by this study was more among manually partly skilled or unskilled occupations although it was of no statistical significance. Mother's employment may affect birth spacing, for example, in Canada,⁽¹⁵⁾ and Nigeria⁽¹⁶⁾, research revealed that women who work outside the home tend to space their children more closely to complete their families quickly and thus minimize their time out of the workforce, or to compress the economic and physical burdens of child-rearing.

Higher education level is usually linked to better health awareness and longer birth intervals^(2, 17). In accordance to our expectations, more women in this study with higher education level preferred a longer birth interval (≥ 2 years) than those with less education, though it was not statistically significant. This finding was also reported among Saudi Arabian women⁽¹²⁾.

The non significant association of both occupation and education level may be attributed to the high proportion of housewives and women of low education level in the sample.

Nearly 43% of the women who preferred short birth interval in this study stated that the reason was a husband's wish. This finding was also reported in other countries as Saudi Arabia,⁽¹⁸⁾ Jordan,⁽¹⁹⁾ and India⁽²⁰⁾.

More than one third of participants were not aware about the known benefits of adequate child spacing on improvement of child's height, weight,

intelligence and better school performance. Studies from the Middle East and other areas have revealed an association between longer birth interval and better physical growth of children⁽²¹⁻²³⁾. Nearly half of the women in this study lacked awareness of benefit of adequate birth interval on lowering the risk of infant and perinatal mortality and morbidity and also on decreasing risk of maternal mortality and morbidity. Worldwide, infant and under-five mortality is a serious problem. A DHS study estimates that in every country thousands of children could survive each year if all women spaced their births at least 3 years apart⁽²⁾.

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