ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

POSTGRADUATE PROGRAM

DURATION AND DETERMINANTS OF BIRTH INTERVAL AMONG PREGNANT WOMEN ATTENDING ANTENATAL CLINIC AT SELECTED PUBLIC HOSPITALS OF ADDIS ABABA, ETHIOPIA, 2020.

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A thesis submitted to Addis Ababa University Collage of Health Science School of Nursing and Midwifery in partial fulfillment of the requirements for the degree of Master of Sciences in Maternity and Reproductive Health Nursing.

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LIST OF ACRONYMS AND ABBREVATIONS

AAU	Addis Ababa University
ANC	Antenatal Clinic
AOR	Adjusted Odds Ratio
BI	Birth Interval
BF	Beast Feeding
CI	Confidence Interval
DHS	Demographic Health Survey
EDHS	Ethiopian Demographic Health Survey
ET. BIRR	Ethiopian Birr
GMH	Ghandi Memorial Hospital
MOH	Minster of Health
OBSI	Optimal Birth Spacing Interval
OR	Odds Ratio
SBI	Short Birth Interval
SPHMMC	St. Paul Hospital Millennium Medical College
SPSH	St.Peter Specialized Hospital
SPSS	Statistical Package for Social Science.
TASH	Tikur Anbessa Specialized Hospital
RDDMH	Ras Desta Dametew Memorial Hospital

WHO	World Health Organization

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ABSTRACT

Background : World Health Organization has identified length of birth interval as a critical determinant of child mortality risks and recommended women to space their births 3-5 years apart to reduce health risks to both children and mothers.

Objective: To determine duration and determinants of birth interval at selected public hospitals of Addis Ababa. **Method:** A facility-based, cross-sectional study design was conducted in Addis Ababa city selected public hospitals. A simple random sampling technique was used to select 375 study participants after the sampling procedure was done. The data was collected using structured and pre-tested, interviewer-administered questionnaire from November 20 to December 20, 2020. Bivariate and multivariable logistic regression were done to identify factors associated with birth interval using odds ratio at 95% C.I and P-value < 0.05 was considered statistically significant. **Result :** A total of 375 respondents participated in the study which makes the response rate of 100 %. Mean birth interval of the study population was 36.2 ± 5.8 months and the median birth interval is 37 months. This study found that short birth interval practice was 31 %. **Conclusion and recommendation:** Short birth interval practice was high in the study area. Factors associated with birth interval were maternal education, mother's occupation, sex of child, maternal age, length of contraceptive use, duration of breast feeding, ANC follow up and place of delivery. Effective counseling on family planning services should be applied.

Keywords: birth interval, public hospitals, pregnant women

1. INTRODUCTION

1.1 Background

Birth interval refers to the time gap between two consecutive child births. It is one of the important indicators of fertility of one country. The World Health Organization has recommended that birth interval length as a critical determinant of child mortality risks and recommended women to space their births between three up to five years. Globally, estimated that 25% of births still occur at intervals less than 24 months (1). DHS showed birth interval of more than 3 years increased survival status of mothers and under five children. Women in developing countries have much shorter birth intervals than they would prefer (2). Different demographic and socioeconomic characteristics are associated with length of birth interval. Mother's age at the birth, education status of the mother, monthly household income, religion, sex of index child and the birth order of child have potentially affected birth intervals (3).

In Africa from evidence of DHS from 52 countries showed that more than half births occurred at duration of less than 30 months. Closely spaced pregnancies are linked to low birth weight, intrauterine growth retardation, preterm delivery and infant mortality (4).

According to Ethiopian Demographic Health Survey the median birth interval in Ethiopia is 34.5 months. Ethiopia is one of the populated African countries with total fertility rate of 4.2 per woman. Birth spacing is an important factor for regulation of fertility of one country's population. Currently, the coverage of family planning has increased, but short birth interval is still a concern for Ethiopian due to factors like religion, sub optimum breastfeeding, unwanted pregnancy and non-use of contraceptives (5).

Different studies show that average birth interval is significantly shorter for women with a preceding birth of a female child, death of previous child and short breastfeeding duration. Knowing practice of birth interval and factors influencing women birth interval is very important for countries like Ethiopia with a population policy aim at reducing fertility (6).

In order to increase knowledge and approval of family planning, mass medias have a great influence to change the population attitude. So we have to use it as a means for promoting family planning & influencing fertility related behaviors of women (7). However, factors associated with short birth interval are not the same across different cultures and socio-demographic. So this study aimed to assess factors affecting short birth interval practice among pregnant women in Addis Ababa public hospitals.

1.2 Statement of the problem

Short birth spacing has been a problem of both developed and developing countries resulting in negative outcome for infant, child and maternal health. Short inter pregnancy interval predispose to poor maternal and neonatal outcomes due to insufficient time for the mother to recover from the nutritional burden and stress of the previous pregnancy (8).

Closely spaced births have high impact both to the individual and society. Short birth interval makes women unproductive members of society by limiting their contribution to economic development. Women with short birth interval predisposed for health problems as well as economic burden to the family (9).

Comparing children born to women with inter pregnancy interval more than 36 months, children born to less than 12 months' birth interval had a significantly increased risk of developmental delay. Inter pregnancy interval shorter than 6 months after a live birth also associated with increased risk of induced abortion, miscarriage and stillbirth (10).

Three up to five years' birth interval is safer for both the mother and child. According to 2016 Ethiopian demographic & Health Survey (EDHS) Ethiopian population fertility rate is 4.6. The desire for large family size is one of the factors affecting fertility in Ethiopia. Having a large number of children has highly influenced the socioeconomic, demographic and environmental development of the country. Ethiopia also has a significant number of infant and neonatal mortality compared to the overall average rate of infant and neonatal mortality reported in Africa (11) . Studies showed that mother's age at first birth, parity, previous birth interval, mothers working status, sociodemographic factors, gender of living children and mass media are described as determinants of birth interval (12).

Optimum child spacing is an essential for the health of women and their children. Identifying factors which affect birth interval of women is essential for countries with high fertility and maternal mortality rate like Ethiopia. The available studies conducted on birth interval in the country are insufficient to inform policy makers. Therefore, since there is no study done in this topic in Addis Ababa this study will help to assess duration and determinants of birth interval among pregnant women attending antenatal clinic at selected public hospitals of Addis Ababa.

1.3 Significance of the study

Finding of this study would be helpful to inform local and nationwide policy makers how fertility and birth spacing practiced in the study area. It will also be used to design appropriate and feasible strategies to encourage use of optimal birth spacing. The finding from this study will be used for health care planners and program managers in designing specific and scientifically sound interventions to address the gap in the utilization of family planning and optimal birth spacing.

Furthermore; the result will provide important information for health care providers, civil organizations and health facility managers to design appropriate interventions suitable for their clients that will play credible role for mothers to optimize their birth interval. Finally, it will provide baseline information for other studies.

2. LITERATURE REVIEW

2.1. Duration of birth intervals

A study in southwest Ethiopia showed that 59.9% of the mothers had short birth interval less than 36 months, followed by 35.7% and 4.5% practicing optimal and long birth interval between their last two children respectively (12). Another study in Southern Ethiopia revealed that 57% of women had short birth interval with the median birth interval of 33 months (7). Another study done in Southern part of Ethiopia showed that the median duration of birth interval of 31 & 40 months among cases and controls of the study respectively (28).

Sixty percent of births in the developing countries occur at interval shorter than birth interval of 36 months. More than 100 million women in developing countries want to avoid short birth interval. A recent analysis DHS data from 21 low income countries found that, 9 of those countries, 50 percent or more of non-first births occurred at intervals considered too short and in another 9 countries, 40 percent of non-first births occurred at intervals considered too short. After childbirth, about 95% of the women in developing countries want to postpone pregnancy, but more than half of them do not use a contraceptive method (9).

A study conducted in United States revealed that 29.6% of women had short birth interval (5). Another study in Saudi Arabia showed about a quarter (26.0%) of the women had actual mean birth interval of less than 24 months. Five percent had mean birth interval of more than 36 months. The mean birth interval of in the study was 33.5 months (14).

Across sectional study conducted in Iran showed that mean duration of birth interval in the population was 49.76 months with a median of 39. In 28.5% of women the birth interval was <2 years, in 28% it was 3-5 years and in 25.5% it was ≥6 years (39).

2.2. Determinants of birth interval

Studies bring out that mothers age, number of living children, economic status, no previous child death, knowledge and use of family planning and exposure to media, plan to have the next pregnancy, deciding together with husband when to have the next child, always using contraceptives before the next pregnancy, and influence of husband on when to have the next pregnancy were significantly associated with birth intervals (9,33,34,36).

A study in Northern Ethiopia reported that Christians tend to space births longer when compared to Muslims. This could be due to non-use of contraceptive methods among Muslim followers. Which reported that 63.9% of Orthodox Christian followers versus 36.1% of Muslim followers were using modern contraceptives (16).

A cross-sectional study in Ethiopia, Maichew, mothers have parity of 2-3 were the majority,(60.3%), parity of 4-6 (35.5%). Most of participants didn't prefer child sex and 32.1% prefers male sex. 38.7% participants preferred the time of spacing more than 36 months and 26.9% prefer less than 36 months and a large number of participants didn't know about preferred time of birth spacing (20).

A cross sectional study was conducted in four valley districts of Manipur, birth interval practice within 36 months is 54 % for the women with age at marriage. The median birth interval decreases with the increase in the age at marriage of women (6).

A study in Bangladesh showed that women with more than 37 months previous birth intervals have 41 percent higher birth intervals than that of women with birth intervals less

than 12 months and mothers having first birth on age 21 to 25 have 14% increased birth intervals than that of before 15 years old. The length of birth interval increases with level of education, higher educated woman have 40 percent larger birth interval than that of illiterate women (4). A study in Nepal among 363 prim parous women, greater than half come from urban & the majority (78%) obtained secondary or above education and 69% of the study participants know about family planning methods (22).

Studies revealed that level of education showed strong statistical association with short inter birth interval. Mothers with no formal educational were more likely to have short BI. Similarly, mothers who breast feed the preceding child for less than 24 months were more likely to have short inter birth interval than their counterparts of mothers who breastfeed for 24 months or more. Sex of the preceding child has also revealed association with inter birth interval. Mothers whose preceding birth was female were about more likely to experience short birth interval than those whose child was male. Muslims were more likely to have short birth interval compared to Christians (21, 30, 31). Another study also showed that women were more likely to give birth a next child with less than 3 years after the birth of a daughter than after a son's birth (7,13).

Studies showed that women who knew at least one method of family planning were 80% more likely to decrease number of child bearing than who do not knew any method of family planning. Women with exposure to at least one of the three media (radio, TV and newspapers) were more likely to limit childbearing when compared to women who had no access to any mass media (10, 36,32). A study done in Iran showed women with higher educational level have shorter birth interval, women with low parity had short birth Interval and breastfeeding increased the birth interval between two consecutive children (39).

2.3 Recommended verses actual mean duration of birth interval

The median birth interval of Tigray, Ethiopia was (34.6 months) which was lower than the recommended birth interval (20). Study conducted in Southern Ethiopia, majority (57%) of women were practicing short birth interval length, 35.8% respondents had optimum birth interval and the 6.6% had long birth interval with the median birth interval length of 33 months. This shows that the mean preferred birth interval length is significantly greater than the mean actual birth interval length (7).

A cross sectional study done in Debre Markos, Ethiopia showed that the median duration of birth interval practice was 37 months which is within WHO recommended birth interval (24). A study done in Dabat, Ethiopia revealed that the median birth interval was 32.6 months which is below the optimal recommended birth interval between two consecutive births (23).

A study done in Dodota Woreda, Ethiopia found that the median birth interval duration 32 months. This means 50% of the last births were happened in short birth interval duration which exposed to mother and child for health problems (26).

A study conducted in Tanzania Rufiji revealed that the median inter birth interval was below WHO recommendation (36 months) which is 33.4 months, factors contribute to this are young age group, being married, maternal education status, parity,work status of the mother (15).

2.4 Conceptual Framework

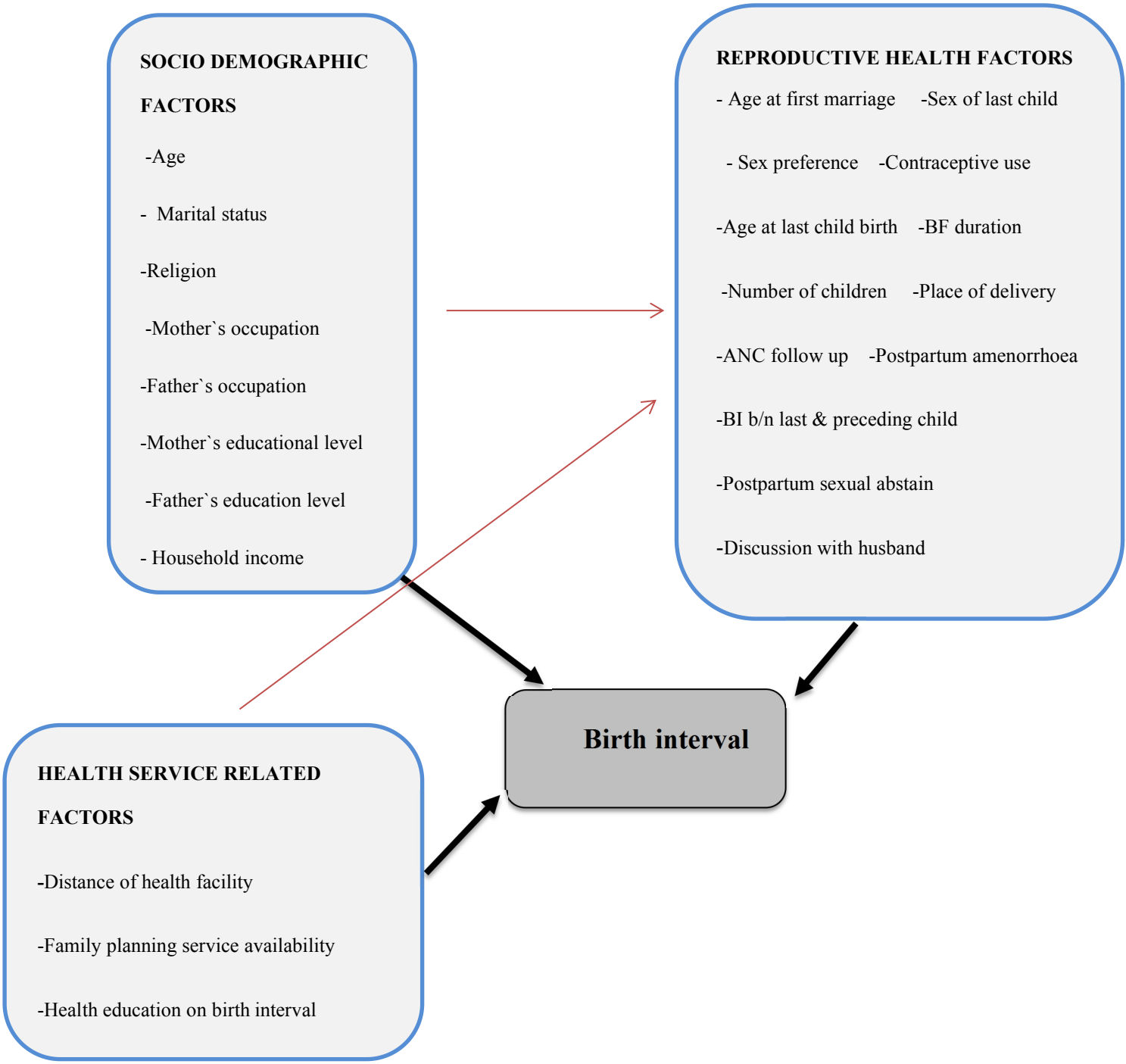

Figure 1: Conceptual framework showing duration and determinants of birth interval among pregnant women attending antenatal clinic at selected public hospital of Addis Ababa, Ethiopia, 2020 (7, 20, 42).

3. OBJECTIVES

3.1 General objective

To assess the duration and determinants of birth interval among pregnant women attending ANC at selected hospitals of Addis Ababa, Ethiopia, 2020.

3.2 Specific objectives

- To determine the duration of birth interval among pregnant women attending antenatal clinic at selected public hospitals of Addis Ababa, Ethiopia, 2020.
- To identify factors affecting the length of birth interval among pregnant women attending antenatal clinic at selected public hospitals of Addis Ababa, Ethiopia, 2020.

4. METHODS AND MATERIALS

4.1 Study area & period

The study was conducted in Addis Ababa, Ethiopia. Ethiopia is the second populated nation in Africa, with over 100 million inhabitants and Addis Ababa is the capital city of Ethiopia. The population of Addis Ababa in 2019 was estimated around 4,59200, the city has 13 government hospitals; 5 federal, 6 under Addis Ababa health bureau, 1 hospital belong to police force and 1hospital belong to armed force (29). Five hospitals were selected based on lottery method. Hence, Tikur Anbessa Specialized Hospital, St. Paul's Hospital Millennium Medical College, Ras Desta Damtew memorial hospital, St. Peter specialized hospital, and Gandhi Memorial Hospitals were selected for this study. The study was conducted in selected public hospitals of Addis Ababa, Ethiopia from November 20 to December 20, 2020.

4.2 Study design

A facility-based cross-sectional study design was used to assess duration & determinants of birth interval.

4.3 Population

4.3.1 Source population

All pregnant women who were attending Antenatal clinic at public hospitals during the study period.

4.3.2 Study population

All pregnant women who attended Antenatal clinic at selected public hospitals during study period.

4.3.3 Study participants

Pregnant women who attended Antenatal clinic at selected public hospitals during study period fulfilling eligibility criteria (inclusion/exclusion).

4.4 Eligibility criteria

4.4.1 Inclusion criteria

All multiparous pregnant mothers with two or more alive birth and who gave birth within the last 5 years before the study.

Pregnant women who were living in Addis Ababa for at least six months.

4.4.2 Exclusion criteria

Pregnant mothers who had abortion, still birth and death of child.

4.5 Sample size determination

The sample size required for this study was calculated based on a single population proportion formula. The estimated proportion of evidence of birth interval of study done in Southern Ethiopia was 60% (7), the margin of error 5%, confidence interval 95% and non-response rate 10%. The required sample size (n) was calculated as follows:

$$n = \frac{z\left(\frac{a}{2}\right)2 \times p(1-p)}{d^2}$$

Where:

n- Is minimum sample size

Z- Is standard normal distribution corresponding to significance level at α = 0.05.

d- Is margin of error assumed to be 5%.

P- Is anticipated proportion of Birth interval in Southern Ethiopia (60%),(7).

n=(1.96)^2.(0.6) (0.4)/(0.05)^2 = 368.

Using correction formula

- Correction for finite population <10,000, N= 4500 so,

$$nf = \frac{no}{1+no/N} = 368/1+368/4500$$

With the above inputs the minimum sample size required for study was 341 taking 10% non- response rate the final sample size were 375.

4.6 Sampling Procedure

To select 375 pregnant women from the total five Addis Ababa public hospitals, all selected hospitals listed down with their respective multiparous pregnant women number, and then the number of multiparous pregnant women in each hospital per month had been proportionally allocated to sample size; then the sampling frame prepared for each hospital by having lists of multiparous pregnant women from the hospital ANC clinic and finally the study subjects of each hospital selected by using simple random sampling technique.

Based on proportional allocation formula total sample sizes (375) allocated to the selected five public hospitals.

$$nj = \frac{nxNj}{N}$$

Where;

nj= is the sample size of the jth hospital

Nj= is population size of the jth hospital

n= n1+ n2+n3 is the total sample size (375)

N=N1+N2+N3 are total population size of p (4500)

Tikur Anbessa Specialized hospital = 375*1200/4500 = 100

St. Paul‟s medical millennium college = 375*1000/4500 = 83

Gandi Memorial Hospital = 375*1350/4500 = 113

Ras Desta Damtew Memorial Hospital = 375*300/4500 = 25

St. Peter Specialized Hospital = 375*650/4500 = 54

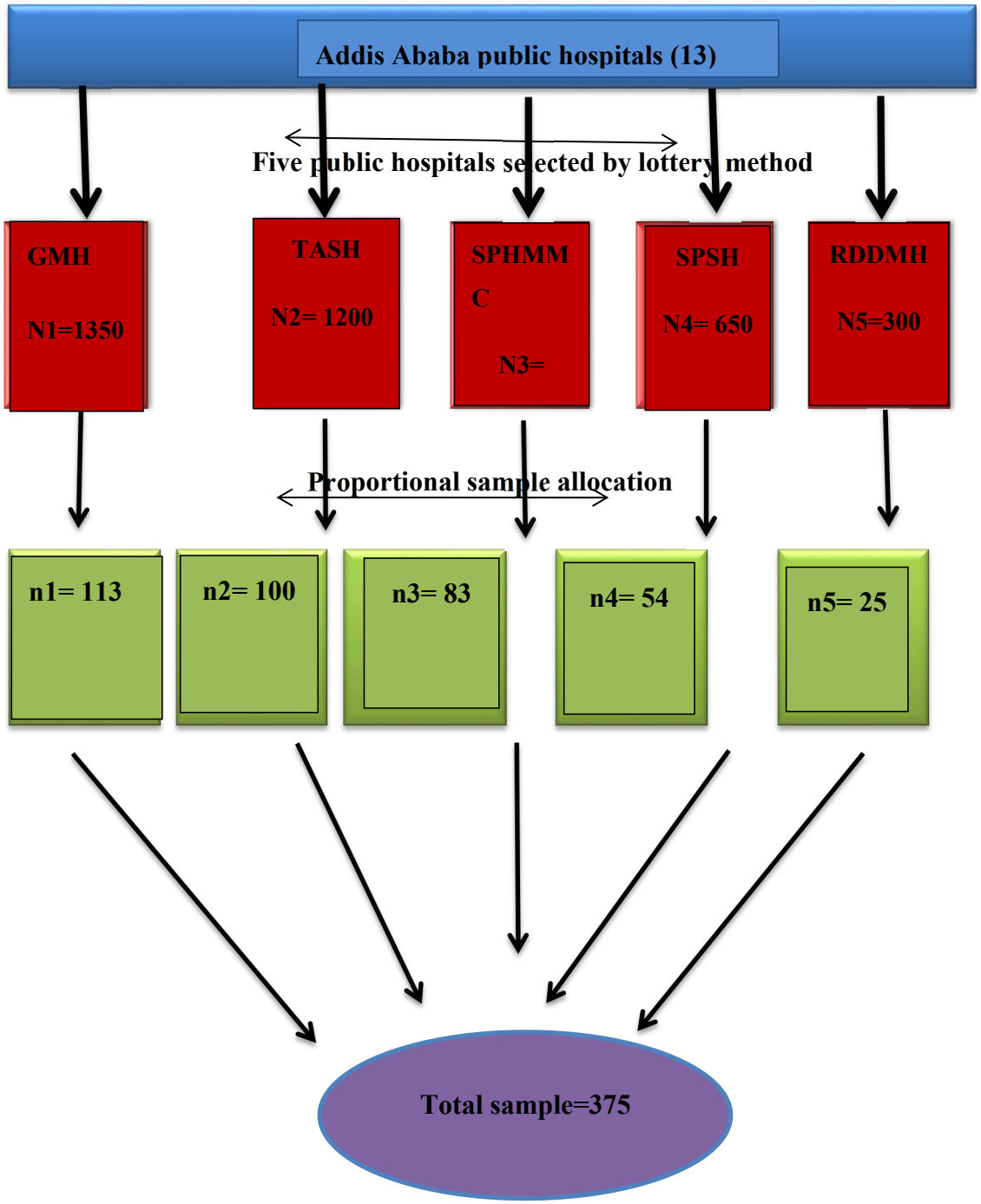

Figure 2: Schematic representation of sampling procedure of duration and determinants of birth interval among pregnant women attending antenatal clinic at selected public hospitals, 2020.

4.7 Study variables

4.7.1 Dependent variable

Birth interval

4.7.2 Independent variables

Independent variables:

• **Socio demographic variables**: Mother's level of education, husband's level of education, age, monthly household income, mother's occupation, father's occupation, religion, marital status.

• **Reproductive health variables:** age at first marriage, age of mother at last child birth, number of children, postpartum amenorrhoea, postpartum abstinence, place of delivery, antenatal follow up, preferred sex of child, breastfeeding, contraceptive use, preferred birth interval, Discussion with husband about contraceptive & sexual issues.

• **Health service utilization:** Access of reproductive health service, distance of reproductive health service, Health education service, family planning service availability.

4.8 Operational definition & definition of terms

Actual birth interval – The exact time which take to a mother to have her next child (20).

Birth interval - the period between two consecutive live births, from birth date to next child birth date, the interval between the birth of the index child and his/her immediate younger sibling (1).

Index child – the immediate preceding child to the last child (20).

Multiparous pregnant women - pregnant women who have at least two alive children (24).

Optimum birth interval – Birth which occurs three to five years gape from previous child birth (1).

Parity*:* The number of term children born by a woman before the study (1).

Postpartum abstinence - Refers to the period of voluntary sexual abstinence after a woman child birth (20).

Postpartum amenorrhoea - Is the time between the birth of a child and temporary postnatal infertility that occur when a woman is not menstruating (20).

Preceding child - The immediate older sibling to the last child who was born (7).

Preferred birth interval- estimated period of time depending on the mothers' perspective the time which the mother wants her next child (20).

Short birth interval – Birth which occurs less than three years from the previous child birth (< 3) (1).

Subsequent child – The immediate younger sibling to the last child who was born with in 5 years before the survey (20).

4.9. Pre Test

The interviewer-administered questionnaire was tested with pretest by taking 5% (19) of the sample size two weeks prior to main data collection time at Zewditu hospital, which is not included in the study. Correction on the instrument, clarity and ambiguity of words was made accordingly after the pretest was conducted. The pretest also used to see how much time it takes to administer the entire questionnaire

4.10. Data collection method

Data were collected by using a pre-tested structured, interviewer administered questionnaire adapted from a review of related literature (7, 20). The questionnaire consists of three parts:

Section A of the questionnaire covered the socio-demographic status of respondents that was: (age, mother`s educational level, husband`s education level, mother`s occupation, husband`s education, monthly household income, religion, marital status).

Section B of the questionnaire covered the health service utilization of respondents that was: (distance of health facility, family planning service availability, health education about birth interval).

Section C of the questionnaire covered the reproductive characteristic of respondents that was: (age at first marriage, age at last child birth, age difference b/n last child and preceding child, contraceptive use, duration of breast feed, antenatal follow up, place of delivery, postpartum abstain, postpartum amenorrhoea).

Data were collected by 4 trained female Diploma Midwives. The data collection process was supervised by 2 BSc Midwives who had previous experience in data collection. In addition, data collectors were continuously supervised by the principal investigator throughout the data collection period.

4.11. Data quality assurance

The questionnaires were first prepared in English and back-translated to local language (Amharic) by language experts and re-translated to English to ensure its consistency of meaning. The Amharic version was used for the data collection. The data collectors were trained in data collection procedures and were supervised. The principal investigator supervises the data collectors and provided feedback throughout the data collection period. Each questionnaire had the interviewer's initial and code to facilitate cross-checking of the completed questionnaire. The collected data was checked for its consistency and completeness before any attempt to enter code and analyze it.

4.12. Data analysis

The data was cleaned, coded and entered into Epi-data version 4.6. Software and then exported to Statistical package for social sciences (SPSS) version 25 for further analysis. The bivariate analysis was done to identify the association between independent variables and the dependent variable. Variables with a p-value <0.25 in bivariate analysis were a candidate for multivariable logistic regression, and then those variables with a p-value <0.05 at 95% confidence interval (CI) in multivariable analysis considered as having statistically significant association with birth interval. Finally, results were presented in texts, graphs and tables.

4.13. Ethical clearance

Ethical clearance and approval letters were obtained from the Addis Ababa University research ethics committee or institutional review board (IRB). A permission and support letter to conduct the study was obtained for Addis Ababa health bureau and for selected hospitals. Participants were provided with informed verbal consent before data collection and Confidentiality were assured by using codes rather than names. Participation was voluntary and participants were informed that they could stop participating from the study at any time if they want.

4.14. Dissemination plan

First, the study findings will be presented to the community of Addis Ababa University School of Nursing and Midwifery. Then, it will be disseminated to Addis Ababa University College of health sciences library and those hospitals included in the study. Finally, it will be published in national and international journal to disseminate worldwide.

5.RESULTS

5.1. Socio-demographic characteristics of participants

A total of 375 pregnant multi-parous women participated in the study which makes the response rate of 100 %. About 236 (63.3%) respondents were within the age group of 26-35 with a mean age of 33.62 (SD: ± 5.021) with minimum and maximum age were 22 and 46 years respectively. From the total number of participants 365 (97.3%) were married.

Of total, 139 (37%) of participants were Muslim. From total participants, 138 (36.8%) of participant's educational level were secondary education. Majority husband`s, 206 (54.9%) have collage and above educational level. From total participants, 156 (41.6%) of them had private work, 115 (30.7%) of them were housewives, 104 (27.7%) of participants had government work. The average number of children per participant was 3.24 (SD: ± 1.051) (table 1).

Table 1: Socio-demographic characteristics of pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

Variables		Frequency	Percent %
Age	<=25	20	5.3
	26-35	237	37.1
	36-45	117	59
	≥46	1	0.3
Religion	Muslim	139	37
	Orthodox	122	32.5
	Protestant	84	22.5
	Catholic	30	8
Marital status	Married	365	97.3
	Divorce	6	1.64
	Widowed	4	1.06
Mother`s education level	No formal education	13	3.5
	Primary education	88	23.5
	Secondary education	138	36.7
	Collage and above	136	36.3
Mother`s occupation	Private	156	41.6
	Government employee	104	27.7
	House wife	115	30.7
Father`s education level	No formal education	5	1.3
	Primary education	62	16.5
	Secondary education	102	27.3
	Collage and above	206	54.9
Father`s occupation	Private work	217	57.8
	Government	158	42.2
HH income	<5000	85	23
	>5000	290	77

5.2 Health service utilization of the study population

All 375 the participants had access for health facilities and 292 (77.9%) said that they have health facility at nearby and the distance of health facility didn`t affect them. Participants respond that 135 (36%) of them used hospital for reproductive health services. Majority of participants 244 (65%) used combination of antenatal, family planning and immunization services after their last child birth.

Most of 300 (80%) of respondents heard about contraceptive. Source of information for contraceptive 212 (70.6%) were health sectors. The length of contraception use for 244 (59.3%) of respondents were over 24 months. Majority of respondents 306 (81.6%) had been told about birth interval by health workers and told birth interval by health workers were 290 (94.8%) >36 months of birth interval (table 2).

Table 2: Service utilization of pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

Variables		Frequency	Percent %
Type of health facility used	Hospital	135	36
	Hospital & health center	104	27.7
	Hospital & private clinic	62	16.6
	Health center & private clinic	44	11.7
	Health center	30	8
Distance of health facility affect the service	Yes	83	22.1
	No	292	77.9
Availability of family planning service in health facility	Yes	300	80
	No	75	20
Information on contraceptive	Yes	300	80
	No	75	20
Source of information about contraceptive	Health sector	212	70.6
	Family & friends	80	26.3
	Non-governmental organization	8	2.6
Length of contraceptive use	< 24 months	151	40.3
	≥ 24 months	224	59.7
Informed about BI by health workers	Yes	306	81.6
	No	69	18.4
Informed duration of BI	< 36 months	85	5.2
	≥ 36 months	290	94.8

5.3 Reproductive characteristics of participants

From total participants 20 (5.3%) of them were married before the age of 18. Three hundred thirty (88%) of participant had given birth of 2-4 children and from participants who gave birth 1 (0.3 %) had gave birth of last child before 18 years old.

Of total number of participants, the mean of respondents preferred number of children were 4.43 (±1.123 SD) with minimum 3 and maximum 8 children`s, 307 (81.9%) preferred to have 2-5 children, 68 (18.1%) of them preferred to have 6-8 children in their life time. Of the total participants 299 (79.7%) said current pregnancy was wanted & planned. Majority of respondents, 259 (69 %) had birth interval of >36 between last child & preceding child. Mean birth interval of the study population was 36.2 ± 5.8 months and the median birth interval is 37 months.

Most of 238 (63.4%) participants preferred the time of birth interval more than 36 months and 102 (27.2%) prefer less than and equal to 36 months' birth interval. Majority 203 (54.1%) of participant's sex of last child was female.

Majority of participant 296 (78.9%) had more than 45 days of postpartum sexual abstain and 266 (70.9%) of respondents had more than 6 months' duration of amenorrhoea. The median duration of amenorrhoea in this study was 15.3 months and mothers abstain for a median of 2 months since the birth of the last child.

Among total participants 52.5% perceived that a child should stop breast feeding after 24 months. 275 (73.3%) of participants had discussed about contraceptive with their husband and 100 (26.7%) of them didn`t discussed. Additionally, 217 (57.8%) participants discussed about sexual issues with their husband (table 3).

Table 3: Reproductive characteristics of pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

Variable		Frequency	Percent %
No of children	2-4	330	88
	5-8	45	12
Birth interval	<36 months	116	31
	≥36 months	259	69
Sex preference	Male	179	47.7
	Female	26	6.9
	Both	170	45.3
Length of breast feeding	< 24 months	263	70.1
	≥ 24 months	99	26.4
	I don`t know	13	3.5
Discussed about contraceptive	Yes	217	57.8
	No	158	42.2
Is current pregnancy wanted	Yes	299	79.7
	No	76	20.3
Preferred birth interval	>36 months	137	36.6
	≥36 months	238	63.4
Postpartum sexual abstain	< 45days	79	21.1
	> 45 days	296	78.9
Postpartum amenorrhoea	< 6 months	109	29.1
	> 6 months	266	70.9
Preferred birth interval	>36 months	238	63.4
	<36 months	102	27.2
	I don`t know	35	9.4
Discussed about sexual issue with husband	Yes	217	57.8
	No	158	42.2

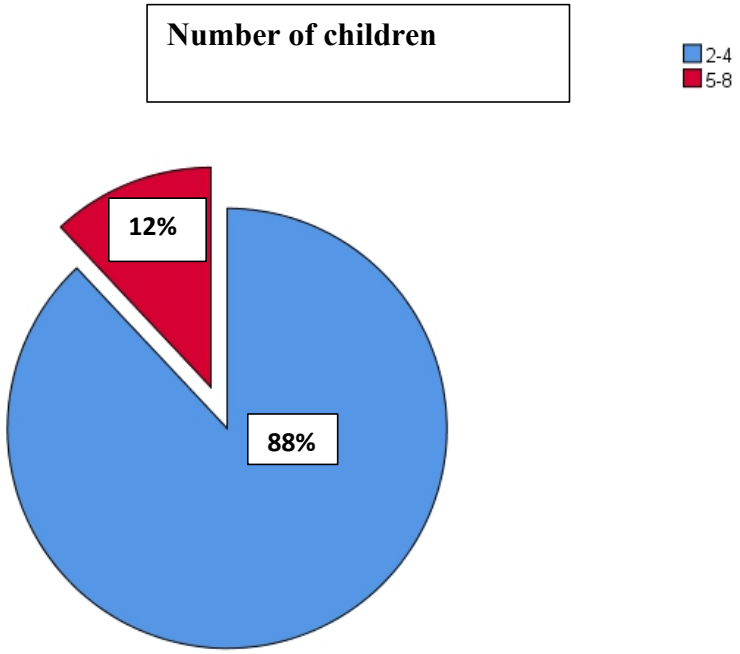

Figure 3: Number of children of pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

Most of participants 263 (70.1%) breastfeed their last child less than 24 months or 2 years and 99 (26.4%) of them feeds more than 24 months and 13 (3.5%) of them didn`t breast feed at all. Mothers had different reasons to stop breastfeed their child, accordingly the majority of mothers, 127 (33.9%) stop breast feeding because of new pregnancy (figure 3).

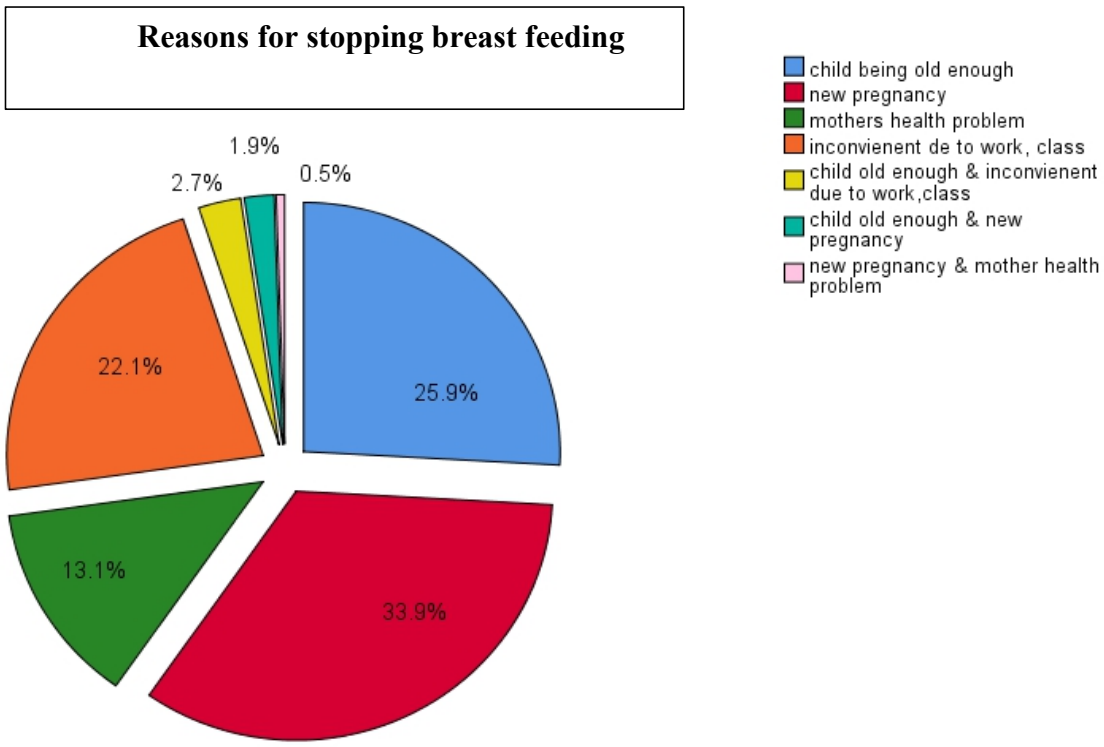

Figure 4: Reason for stopping breast feeding among pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

5.4. Duration of birth interval

Birth intervals were associated with the number of children a woman had. Within age groups, the shortest median interval occurred in mothers less than 25 years when compared with mothers with age group of 36-45 and > 45 years. The reason for this may be because of younger women are more fertile and sexually active and the duration of breastfeeding practice is shorter than older women. This study found that short birth interval practice was 31%. Median birth interval of the study population was 37 months. The median birth interval (37 months) were within recommended optimal birth interval by World Health Organization.

When comparing median birth intervals with in age groups, the shortest median birth interval occurred among younger mothers in the study participants that was, <25 years old mothers had the shortest interval of 32 months while those 26- 35 years old mothers had longer intervals of 35.6 months and those 36-45 years old mothers had 42 months of birth interval.

5.5 Determinants of duration of birth interval

Binary logistic regression was done to identify factors associated with birth interval. Mother`s education level, number of children, household income, sex of child, breast feeding duration, contraceptive use, place of delivery, age at birth of index child, family planning service at nearby health facility, discussion with husband about contraceptive, postpartum amenorrhoea, ANC follow up and age at first marriage had an association with birth interval in bi variate logistic regression analysis.

All variables that have an association with the outcome variables in binary logistic regression analyses were included in the multivariate logistic regression analysis models. In multi variable logistic regression analysis factors that were significantly associated with birth interval were mother`s education level, number of children, household income, sex of last child, breast feeding duration, contraceptive use, place of delivery, age at birth of index child, family planning service at nearby health facility, discussion with husband about contraceptive and ANC follow up at P-value of <0.05.

Pregnant women who had 2-4 children were more likely to have short intervals less than 24 months than those who had children between 5- 8 children. Mothers with age group of less than 25 were 2 times more likely to have short birth interval less than 36 months than other age group mothers [AOR= 2.01(95% CI:1.87 - 4.2]. Mothers who had no formal education level were 5 times more likely to have short birth interval of less than 36 months when compares with mothers with collage and above education level [AOR= 5.0 (95% C.I: 1.69-14.5)].

In the current study monthly household income was the variable affecting birth interval. Mothers with monthly household income less than 5000 Et. Birr were 4.4 times more

likely to have short birth interval when compared with mother's household income greater than 5000 Et. Birr [AOR= 4.4(95% C.I: 1.82- 11.7)].

Furthermore, women with female sex of child were more by 14.2 % to have short birth interval when compared to women with male sex of last child [AOR=1.73(95% CI:1.32 - 2.67)]. Pregnant mothers who breast feed for less than 24 months were 2.4 times more likely to have short birth interval when compared to mothers who didn`t breast feed [AOR=2.41(95% CI:1.40 - 4. 84)].

Age at birth of index child significantly associated with short birth interval showed that those women with age group less than 25 when giving birth of index child were more likely to have short interval by nearly 18 % compared to those aged above 25 years old [AOR=2.21(95% CI:1.07- 4.5)].

Mothers who used contraceptives less than 24 months were 5.4 times more likely to have short birth interval when compared with mothers who used contraceptives greater than 24 months [AOR=5.47(95% CI:3.58 -9.42)]. Mother who didn`t discussed about contraceptive with their husband were 3.2 times more likely to have short birth interval than mother who were discussed with their husbands about contraceptive [AOR=3.27(95% CI:1.08 - 9.8)].

Pregnant women who didn`t have antenatal clinic follow up during their index child pregnancy were significantly associated with short birth interval less than 36 months [AOR = 1.92(95% CI: 1.10-3.36)]. Pregnant mother who gave birth at home were 2.7 times more likely to have short birth interval than mothers who gave birth at health facilities [AOR = 2.7(95% CI:1.55-4.94) (table 4).

Table 4: Determinants of birth interval among pregnant women attending antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia, 2020 (n=375).

Variable		P- value	COR	AOR
Number of children	2-4	**0.027***	0.18(0.16-0.24)	**5.47(3.18-9.42) ***
	5-8		1	1
Sex of child	Male		1	**1**
	Female	**0.031***	1.51(1.07-2.26)	**1.73(1.32-2. 67)***
Mother`s education level	No formal education	**0.016***	9.33(4.70, 18.51)	**5.0(1.69, 14.5) ***
	Primary education	0.095	0.37(0.14-1.02)	2.62(0.97-7.17)
	Secondary education	0.194	0.71(0.01-3.36)	1.42(0.29-5.80)
	Collage and above	0.799	1.74(1.15-2.63	1.42(0.90-2.23)
Household income	< 5000 bir	**0.021***	1.54(4.58, 15.90)	**4.4(1.82- 11.7) ***
	> 5000 birr		1	1
Duration of Breast feeding last child	<24 months	**0.025***	0.29(0.15-0.57)	**2.41(1.40-4.84) ***
	≥24 months	0.64	0.66(0.35-1.23)	0.99(0.51-1.96)
	I didn`t BF		1	1
Age at birth of index child	<25 years	**0.038***	2.21(1.07-4.5)	**2.21(1.07-4.5) ***
	≥25 years	0.065	1	1
Contraceptive use	<24 months	**0.032***	0.18(0.16-0.24)	**5.47(3.18-9.42*)**
	≥24 months		1	1
FP service in nearby health facility	Yes		1	1
	no	**0.021***	1.23(0.48-1.21)	**0.5(0.306-0.87) ***
ANC follow up	Yes		1	1
	No	**0.024***	0.38(0.14-1.05)	**1.92(1.10-3.36) ***
Place of delivery	Health facility		1	1
	Home	**0.016***	2.19(0.42-1.3)	**2.7(1.55-4.94) ***
Discussed about contraceptive	Yes		1	1
	No	**0.032***	0.36(0.1-0.9)	**3.27(1.08-9.8) ***
Postpartum Amenorrhoea	<6 months	0.63	1.76(1.17-2.64)	0.72(0.46-1.12
	>6 months		1	1

***The test statistic is significant at the p-value of ≤ 0.05.**

6. DISCUSSION

The result of current study showed that the duration and determinant of birth interval among pregnant women attending Antenatal clinic at selected public hospitals, Addis Ababa, Ethiopia. The finding of study showed the current levels of birth interval and its associated factors.

In this study the shortest median birth interval occurred among younger mothers than older mothers in the study participants that was, <25 years old mothers have the shortest interval of 32.4 months while those 26- 35 years old mothers have longer intervals of 35 months and those 36-45 years old mothers have 42 months of birth interval. This figure was nearly similar with which was conducted in Tanzania and Brazil (15, 41). This might be due to younger women are sexually more active than older.

Education was one of the most factors having a great effect on birth interval length. Mothers who had collage and above educational level less likely to have short birth interval when compared with other mothers. Mothers with high level of education prefers to have long birth interval. Mothers who had collage and above education level less likely to have short birth interval by 37.3% when compared with mothers who had primary and secondary education. This finding was consistent with evidences from study conducted in Pakistan (42). This might be due to childbearing preferences and educated women are more likely to use family planning methods and women with more education may have job outside home which can lead to longer birth interval.

This study also found that monthly household income had significantly associated with birth interval. Mothers with monthly household income less than 5000 Et. Birr were more likely to have short birth interval when compared with mothers with household income

greater than 5000 Et. Birr. This study was consistent with study done in Indonesia (25). This might be due to women perceived that having more children as prestige.

Mothers who breast feed less than 24 months had more likely to have short birth interval when compared to mothers who breast feed more than 24 months. Another finding in Arsi zone, Ethiopia showed that women who breastfed their child for less than 24 months were more likely to give birth within-short birth interval duration. Due to effect of breastfeeding which results in lactation amenorrhoea (26).

Women with female sex of last child had more likely to have short birth interval. This finding was consistent with study done in southern Ethiopia (29). This might be due to sociocultural influence. The society believed that having a male child is a treasure for the family.

Women who used contraceptive had less likely to have short birth interval when compared with women who didn`t used contraceptive. This finding was in line with study done in Indonesia, Northern Ethiopia, Arsi zone Ehiopia. This might be due to using contraceptive delay the pregnancy (24, 27, 39). This might be contraceptives have side effect of prolonging fertility & women who used contraceptive have a planned child birth.

Pregnant mother who gave birth at home were 2.7 times more likely to have short birth interval than mothers who gave birth at health facilities [AOR = 2.77(95% CI: 1.55-4.94)] this finding was in line with study conducted in Tanzania, Dabat and Debre Markos (15, 23, 24). This is might be due to women who gave birth at home may not get family planning service immediately after birth and they may not get health education about optimal birth spacing.

7. STRENGTH AND LIMITATION OF THE STUDY

- ✓ Like other cross-sectional studies, we can infer association but not causation.
- ✓ The study was carried out only in public hospitals. So it does not represent the prevalence of birth interval in private health facilities and health center.
- ✓ Study participants could be subject to recall bias.

8. CONCUSION AND RECOMMENDATION

8.1 Conclusion

Short birth interval practice was high in the study area. Maternal education, sex of child, maternal age, contraceptive use, duration of breast feeding, household income, discussion with husband, ANC follow up, age at index child birth, number of children and place of delivery were determinant factors for short birth interval practice. and

8.2. Recommendation

8.2.1. For government and stakeholders

- ✓ Health education campaign must be given by collaboration of Health Management Team with community leaders to educate the community about optimal birth spacing.
- ✓ Encouraging pregnant mothers to communicate effectively on maternal health issues with their partner.
- ✓ Effective counseling on family planning services should be applied.

8.2.2. For researchers

- ✓ This research was cross-sectional and it will be used as a baseline for other studies. Further large scale studies with the different designs will be recommended to address issues that were not addressed by this study.

8.2.3. For health care providers

- ✓ Health education must be given to the community to create awareness to avoid child`s sex based short birth interval practice.
- ✓ Advice on advantage of using contraceptives and optimal birth interval must be given for all pregnant women attending antenatal clinic.

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ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF NURSING AND MIDWIFERY

POST GRADUATE PROGRAM

Annex one: Information sheet

Here, I undersigned, at Addis Ababa university, college of Health Science, Department of Nursing and Midwifery; will be conducting a research at selected public Hospitals of Addis Ababa, Ethiopia, 2020. After getting your permission for participation, I will give you all the necessary information regarding the study. Thus, the information will be detailed as; Purpose of the study: This study is aimed to assess duration & determinant of birth interval among pregnant women at Antenatal unit in selected public Hospitals of Addis Ababa, Ethiopia, 2020. **Risk**: The study will be carried out by asking your permission with already prepared and structured questionnaire. There will be no physical or psychological harm during the procedure. Besides, you have full right to stop any time you wish and you won't be obliged to give any information which you don't want to answer. **Benefits:** For being involved in this study, there is no payment you will be granted with and no special privilege is also given to you. Perhaps, participating and giving information for the questions being asked plays vital role in the effort made to improve birth interval that will decrease maternal & neonatal, child mortality. **Confidentiality**: Any information you give will be kept confidential and won't be accessible to any third party. Your name won't be mentioned anywhere. The information you give is only used for research purpose. **Consent:** Your participation in this study will totally be on the basis of your willingness. You can stop anywhere you wish to stop participation, even from the very beginning. No one will force you to give information you don't want to give.

Finally, I duly acknowledge your participation and either response.

Name sing date

Principal investigator: Absera Bekalu

Contact address: Cell phone: +251923217487 E-mail- absib219@gmail.com

Greetings!!!

Annex two: Consent form

Hello! My name is _____. Now I am a research team member of AAU. There is a research to be conducted here in Addis Ababa public hospitals. I will be undertaking research aimed to assess duration & determinant of birth interval among pregnant mother at ANC unit in selected public Hospitals of Addis Ababa, Ethiopia, 2020. As part of this survey, relevant information on sociodemographic, history of reproductive behaviors, duration & determinant of birth interval and practice will be obtained. Therefore, you are kindly requested to participate in this study and provide the information required. Your participation in this study is completely on voluntary bases and you have a right to refuse, to take part or to stop giving information at any time. For your participation in the study, no payment will be granted or has no any special privilege to you. Besides, you're not obligated to answer any question which you do not wish to answer. If you fill discomfort to respond to any of the questions, please feel free to drop it any time you wish to do so. I assure you that your name will not be mentioned in anywhere. Filling the questionnaire will take about 30 minutes. The information that you give me will be kept confidential and won't be accessible to a third party; only be used for the research purpose and burnt at the end of the survey.

Could I have your permission to continue?

1. Yes 2. No, Stop and thank the respondent.

Witness's signature certifying that the informed consent has been given.

Witness: Signature_____ Date _____

Data collector: Name_____Signature _____

Date_____

Annex three: English Version Questionnaires

Participants code no: _____

Part I : Socio - demographic data

1. Current age of mother in completed years _____

2. What is your marital status? 1.married 2. single & divorced

3. Religion of respondent 1.Orthodox 2.Muslim 3.Protestant 4.Catholic 5.Others,specify _

4. Mother's educational status at birth of last child 1.no formal education 2.primary education 3.secondary education 4. collage & above

5. Husband's educational status 1.no formal education 2.primary education 3.secondary education 4. collage & above

6. Mother's occupation at birth of last child 1.Student 2.Private Business 3.Government or NGO 4. House wife

7. Father's occupation at birth of last child 1.Student 2.Private Business 3.Government or NGO

8. Household Monthly income at birth of last child 1. < 5000 2. >5000

9. Do you think large family size harm the health of mothers and children? 1. Yes 2. No 3. I don't know

Part II : Health service utilization

10.What is the health institution you used for any reproductive health service?

1. health center 2. Hospital 3.private clinic 4. health center & hospital 5. health center & private clinic 6. Hospital & private clinic

11. Does the distance of the health institution hinder you from using reproductive health service?

1. yes 2. no

12. Is there family planning service in the health institution? 1.yes 2.no

13. Does any health worker informed you the preferred time of birth spacing? 1. yes 2. no skip Q 17

14. If yes to Q no 13, what is the preferred time of birth spacing being told to you? (based on WHO guideline)

1. < 36 months 2. > 36 months 3. I don't know

15. Did you use the following service after birth of last child?

1. ANC 2. Delivery 3. Immunization 4. F/P service 5. ANC & delivery 6. ANC &immunization 7. ANC & family planning 8.ANC, immunization & family planning

Part III: Reproductive health data

16.How many children have you ever born alive (parity)? _____

17. How many total children do you want to have? _____

18. Who decide the no of children you want to have? 1.Husband 2.Wife 3.Both 4. others specify_____

19. What is sex of your last child? 1. female 2. male

20.What was your age at time of first marriage? 1. <= 17 2. 18 -24 3. >= 25

21. Age of mother at time of birth of index child? 1. <= 17 2. 18-24 3. >= 25

22. Age of mother at time of birth of last child? 1. <= 17 2. 18-24 3. >= 25

23. Is current pregnancy wanted? 1.yes 2. no

24. The age difference b/n the last child & present pregnancy? _____

25. What do you perceive about the preferred time of spacing birth between two consecutive children ? 1. < 36 months 2. > 36 months 3. I don't know , skip to Q- 28

26. Why do you prefer the time interval mentioned in Q. no 25? 1. Good for health of mother 2. Good for health of child 3. Does not harm economy 4. Does not harm work

27. Have you know about contraceptive? 1.yes 2.no skip to Q 34

28. If yes to Q-27, what was your source of information about contraception?

1.Health sector 2.Family 3.Friend 4.Mass media 5.Non governmental organizations

29. Have you ever used Contraceptive after the birth of the last child (name)? 1. yes 2. no, skip Q30 .

30. Referring to Q-29 for how long did you use contraceptive after the birth of the last child?

1. < 12 months 2. <18 months 3. < 24 months 4. < 36 months 5. > 36 months

32. According to your response on Q-31 for what purpose do you use contraceptive?

1. for spacing births 2.for limiting number of family 3.I don't know, skip to Q 34

33. If your response to Q- no 32 is “for spacing births”, for how long had you intended to space consequent birth? 1. < 36 months (<3 years) 2. > 36 months (>3 years)

34. Did you have Antenatal care follow up during index child pregnancy? 1. yes 2. no

35. Did you have Antenatal care follow up during last child pregnancy? 1. yes 2. no

36. Where did you gave birth of your index child ? 1. health institution 2. home

37. where did you gave birth of your last child? 1. health institution 2. home

38. For how long did you breast feed the last child (name) 1. < 12 months 2. <18 months

3. < 24 months 4. > 24 months 5. Didn’t breast feed

39. Referring to Q-38, what was the reason for stopping breast feeding at the mentioned time?

1. Child being old enough 2. New pregnancy 3.The mother was sick 4. Inconvenience due to work,class.. 5. the child old enough & incontinence due to work 6.the child being old enough & new pregnancy 7. new pregnancy & the mother was sick 8.new pregnancy & inconvenience to work 9. mother was sick & child old enough

40.When do you think breast feeding should stop completely?

1. < 12 months 2. <18 months 3. < 24 months 4. > 24 months

41. What is benefit of optimal birth interval? 1. good for family health 2. give adequate time for child care 3. good for child growth 4. adequate time for income generation 5.good for mothers health

42. What do you think about short birth interval? 1. poor child health 2. poor maternal health 3. harm economy

43. When did you see the resumption of your menstruation after birth of last child?

1. < 6 months 2. > 6 months

44. For how long did you abstain from sexual intercourse after the birth of last child?

1. < 45 days 2. > 45 days

45. Do you communicate (discuss) about contraceptive use with your husband?

1. yes 2.no

46.Do you discuss about sexual issues with your husband? 1. yes 2.no

Annex four: Amharic Version Information sheet and consent form

አዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ

የ ነርሲነግ እና የ ሚድዋይፍሪ ትምህርት ክፍል ድህረ ምረቃ ፕሮግራም

ተጨማሪዎች

የመረጃ ገጽ

በ አዲስ አበባ በ ተመረጡ የ ሕዝብ ሆስፒታሎች እርግዝና ላይ ባሉ ሴቶች ላይ ያለውን የ ወሊድ የ ጊዜ ርዝመት

በአዲስ አበባ ዩኒቨርስቲ ጤና ሳይንስ ኮሌጅ የነርሲንግ እና ሚድዋይፍሪ ትምህርት ክፍል በተመረጡ የ አዲስ አበባ ህዝብ ሆስፒታሎች በ ኢትዮጵያ አቆጣጠር 2012 ዓም ምርምር ወይም ሪሰርች ላደርግ ስለሆነ እንድትተባበሩን በትህትና ጠይቃለሁ፡፡ ለመሳተፍ የናንተን ፈቃድ ከማግኘቴ በፊት ከጥናቱ ጋር የተያያዙትን ሁሉንም መረጃዎች ለእናንተ አቀርባለሁ ፡፡ ስለዚህ ይህ መረጃ እንደዚህ ይዘረዘራል፤ የጥናቱ አላማ… ይህ ጥናት አላማ ያደረገው በ አዲስ አበባ በ ተመረጡ የ ሕዝብ ሆስፒታሎች እርግዝና ላይ ባሉ ሴቶች ላይ ያለውን የ ወሊድ የ ጊዜ ርዝመት ለማወቅ ነው፡፡

ጉዳት ፡- ይህ ጥናት የሚካሄደው በተዘጋጀ መጠይቅ የእናንተን ፈቃድ በመጠየቅ ሲሆን ይህን በምናደርግበት ሰዓት ምንም አይነት አካላዊ ወይም አእምሮአዊ ጉዳት አይኖርም፡፡ ከዚህ ጎን ለጎን በፈለጋችሁ ማንኛውም ሰዓት የማቆም መብት አላችሁ እና መመለስ የማትፈልጉትን ማንኛውም መረጃ መልስ እንድትሰጡ አትገደዱም፡፡

ጥቅሞች ፡- በዚህ ጥናት ውስጥ በመሳተፋችሁ ምንም የምታገኙት ክፍያ አይኖርም እና ምንም አይነት የተለየ ጥቅም አይሰጥም፡፡ ይሁን እና ጥያቄዎቹ ላይ መሳተፍ እና መረጃ መስጠት በ ወሊድ ላይ ያለውን የጊዜ መጠን ለማሻሻል ትልቅ ሚና የሚጫወት ነው እንዲሁም በወሊድ ወቅት የሚከሰትን የእናቶች እና የህፃናትን ሞት ለ መቀነስ ይጠቅማል፡፡

ሚስጥር ጠባቂነት ፡- ማንኛውም እናንተ የሰጣችሁት መረጃ ሚስጥሩ የተጠበቀ እና ለማንኛውም 3ኛ ወገን የማይቀርብ ሲሆን ፣ ስማችሁ የትኛውም ቦታ አይጠቀስም፡፡ እናንተ የምትሠጡት መረጃ ጥቅም ላይ የሚውለው ለምርምሩ አላማ ብቻ ሲሆን በመጨረሻ ላይም የሚቃጠል ይሆናል፡፡

ስምምነት ፡- በዚህ ጥናት ውስጥ የእናንተ ተሳትፎ ማድረግ ሙሉ ለሙሉ በእናንተ ፈቃድ ላይ የተመሰረተ ነው፡፡ ተሳትፎውን ማቆም በፈለጋችሁበት በማንኛውም ሰዓት ማቆም ትችላላችሁ ፣ በጥናቱ መጀመሪያ ላይ ቢሆን እንኳን መስጠት የማትፈልጉትን መረጃ እንድትሰጡ ማንም አናስገድዳችሁም ፡፡

ስም ፊርማ ቀን

ዋና ጥናት አድራጊ አብሰራ በቃሉ

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ሰላምታ ፡፡

የስምምነት ገጽ

ሰላም! እኔ የአዲስ አበባ ዩኒቨርስቲ የምርምር ቡድን አባል ስሆን ይህ ምርምር የሚካሄደው በአዲስ አበባ የ ህዝብ ሆስፒታሎች ውስጥ ነው፡፡ እኔ የማደርገው ሪሰርች አላማ ያደረገው በተመረጡ የ አዲስ አበባ የ ሕዝብ ሆስፒታሎች ውስጥ በ ነፍሰ-ጡር እናቶች ላይ ያለውን የ ወሊድ ጊዜ ርዝመት እና ይህን የ ሚያመጡትን መሰረታዊ ጉዳዮች ነው ፡፡ የዚህ ጥናት አካል እንደመሆኔ በ ስነ ተዋልዶ ፣ በማህበራዊ እና አካባቢያዊ ጉዳዮች ላይ እና በ ወሊድ የ ጊዜ ርዝመት ተግባር እና ይህን የሚይመጡት ጉዳዮች ላይ ቅርብ የሆነውን መረጃ እጠይቃለሁ ፡፡ ስለዚህ በዚህ ጥናት ውስጥ እንድትሳተፉ እና አስፈላጊውን መረጃ እንድትሰጡ በትህትና እጠይቃለህ ፡፡ በዚህ ጥናት ውስጥ ያለው ተሳትፎ ሙሉ ለሙሉ በፈቃደኝነት ላይ የተመሰረት ያደረገ እና እምቢ የማለት፣ ከፊሉን የመውሰድ ወይም በፊለግሸው ሰዓት መረጃ መስጠትህን ማቆም ትችያለሽ፡፡ አንች ለዚህ ጥናት ላይ ላለሽ ተሳትፎ ምንም አይነት ክፍያ አይሰጥሽም ወይም ምንም አይነት ልዩ ጥቅማ ጥቅም አይታገኝም፡፡ ከጥያቄዎቹ ውስጥ የትኛውንም ለመመለስ ያለመመቾት ከተሰማሽ እባክሽ እሱን ለመተው እና በማንኛውም ሰዓት መልሰሽ ለመስጠት ነፃነት ይሰማሽ ፡፡ ስምሽ የትኛውም ቦታ ላይ እንደማይጠቀስ አረጋግጥለሁ፡፡ ይህን መጠይቅ ለመሙላት የሚያስፈልገው 30 ደቂቃ ብቻ ነው፡፡ አንች የሰጠሽው መረጃ ሚስጥሩ የተጠበቀ እንደሆነ ይቆያል እና ለማንኛውም 3ኛ ወገን ተላልፎ አይሰጥም፤ ለምርምሩ አላማ ብቻ ጥቅም ላይ የሚለው በምርምሩ መጨረሻ ይቃጠላል ፡፡

ለመቀጠል የአንችን ፈቃድ ማግኘት እችላለሁ?

ነ.አዎ 2. አይ አቁም ፡፡ እና መልስ ሰጪውን አመስግን ፡፡

ከዚህ በታች ያለው ፊርማ ለመረጃ መስጠት ስምምነት መደረጉን ያረጋግጣል፡፡

ምስክር ፡ ፊርማ ፡ _____ቀን _____

መረጃ ሰብሳቢ ፡- ስም_____

ፊርማ ፡_____ ቀን፡ _____

የ አማርኛ ቃለ መጠይቅ

መለያ ቁጥር _____

ክፍል ፩ ፡ ማህበራዊ አካባቢያዊ መረጃ

1. የ እናት እድሜ በ አመት _____

2. የ ጋብቻ ሁኔታ? ፩. ያገባ 2. ያላገባ/ የፈታ

3. ሃይማኖትሽ ምንድን ነው? ፩. ኦርቶዶክስ፣ 2. ሙስሊም ፣ 3. ፕሮቴስታንት ፣ 4. ካቶሊክ ፣ 5. ሌሎች፣ ካሉ ይገለፅ _____

4. የ መጨረሻ ልጅ በምትወልድበት ሰዓት ያላት የት/ት ደረጃ ፩. ምንም አልተማረችም 2. የመጀመሪያ ደረጃ 3. 2ኛ ደረጃ እና ከዚያ በላይ

5. የ መጨረሻ ልጅ በምትወልድበት ሰዓት የባል የት/ት ደረጃ ፩. ምንም አልተማረ 2. የመጀመሪያ ደረጃ 3. 2ኛ ደረጃ እና ከዚያ በላይ 4. አላውቅም

6.. የ መጨረሻ ልጅ በምትወልድበት ሰዓት እናት ያላት ስራ?

፩. ተማሪ፣ 2. የግል ስራ 3. የመንግስት ወይም መንግስታዊ ያልሆነ ድርጅት 4. የቤት አመቤት 5. ሌላ፣ ካለ ይገለፅ _____

7. የ መጨረሻ ልጅ በምትወልድበት ሰዓት ባል ያለው ስራ?

2. ተማሪ፣ 2. የግል ስራ 3. የመንግስት ወይም መንግስታዊ ያልሆነ ድርጅት 4.ሌላ፣ ካለ ይገለፅ_____

8. የ መጨረሻ ልጅ በምትወልድበት ሰዓት የነበረው ወርሃዊ ገቢ ?

፩. ከ 5000 ብር ያነሰ፣ 2. ከ5000 ብር በላይ

9. ብዙ የ ቤተሰብ አባል መኖር የእናቶች እና የህፃናትን ጤና ይጎዳል ብለሽ ታስቢአለሽ? ፩. አዎ፣ 2. አይ፣ 3. አላውቅም

ክፍል 2 ፡ የ ጤና ተቋማ አጠቃቀም ጋር የተያያዙ ጉዳዮች

10. ለ ስነ ተዋልዶ የጤና አገልግሎት የምትጠቀሚው የጤና ተቋም የትኛው ነው? (በመልስ ሰጪው የተጠቆሙትን ሁሉንም ክብ አድርጉ) ነ. ጤና ጠቢያ፣ 2. ሆስፒታል፣ 3. የግል ክሊኒክ፣ 4. ጤና ጠቢያ እና ሆስፒታል 5. ጤና ጠቢያ እና ግል ክሊኒክ 6. ሆስፒታል እና የግል ክሊኒክ

ነነ. የጤና ተቋሙ ያለበት ርቀት የ ስነ ተዋልዶ የጤና አገልግሎት ከመውሰድ ያግድሻል? ነ. አዎ፣ 2. አይ

ነ2.የቤተሰብ እቅድ አገልግሎት በአካባቢያችሁ ያለው የጤና ተቋማ ይሰጥአል? ነ. አዎ ፣ 2. የለም

ነ3.ስለ አራርቆ መውለድ ያስተማረሽ የጤና ባለሙያ አለ? ነ. አዎ፣ 2. አይ ጥያቄ 15 ን ዝለል

ነ4. ለጥያቄ ቁጥር ነ4 መልስሽ አዎ ከሆነ የተነገረሽ አራርቆ የመውለድ ተመራጭ ጊዜ ስንት ነው? ነ. ከ36 ወር በታች፣ 2. ከ36 ወር በላይ፣ 3. አላውቅም

ነ5. የ መጨረሻ ልጅ (ስም) ከወለድሽ በኋላ የሚከተሉትን አገልግሎቶች ተጠቅመሻል? (መልስ ሰጪው የተጠቆሙትን ሁሉንም ክብ አድርጉ) ነ.የ እርግዝና ክትትል 2. የወሊድ 3. የ ክትባት 4. የ ቤተሰብ እቅድ አገልግሎት 5.የ እርግዝና ክትትል እና የወሊድ 6. .የ እርግዝና ክትትል እና የ ቤተሰብ እቅድ 7.የ እርግዝና ክትትል እና የ ቤተሰብ እቅድ እና ክትባት

ክፍል 3 ፡ ስነ ተዋልዶ ጤና መረጃ

ነ6. ምን ያህል ልጆች በህይወት ወለድሽ? ድምር---------

ነ7. ምን ያህል ልጆች እዲኖሩሽ ትፈልጊያለሽ? _____

ነ8. አንቺ እንዲኖሩሽ የምትፈልጊያቸውን የልጆች መጠን ማን ነው የሚወስነው? ነ. ባል 2. ሚስት 3. በአንድነት 4. ሌሎች፣ ካለ ይገለፅ _____

ነ9. መጨረሻ የ ተወለደው ልጅ ዖታ (ስም) ነ. ወንድ 2. ሴት

20. የትኛውን ልጅ ዖታ እንዲኖሩሽ ነው የበለጠ የምትፈልጊው? ነ. ወንድ 2. ሴት 3. ሁለቱንም

2ነ. በ መጀመሪያ ጋብቻሽ ሰዓት እድሜሽ ስንት ነበር በአመት? ነ.<ነ7 2. ነ8-24 3. >=25

22.የ መጨረሻ ልጅ የ መወለድሽ ጊዜ ስንት አመትሽ ነበር? ነ.<17 2. 18-24 3. >=25

23. የ መጨረሻ ልጅ በፊት የ መወለድሽውን ልጅ ስትወልጅ ስንት አመትሽ ነበር? ነ.<17 2. 18-24 3. >=25

24.ያሁኑ እርግዝና አስበሽበት ነው የተከሰተው? ነ. አወ 2.አይ

25.የ መጨረሻ ልጅ እና ቀድሞ የተወለደው ልጅ የእድሜ ልዩነት ምን ያህል ነው? _____

26.ተከታታይ በሆኑ ልጆች መሀከል ተቀባይነት ያለው የ ጊዜ ርዝመት ምን ያህል ነው ብለሽ ታስቢአለሽ? ነ. ከ36 ወራት በታች፣ 2. ከ36 ወራት በላይ፣ 3. አላውቅም ወደ ጥያቄ 29ን ዝለል

27. በ 26 ቁጥር ጥያቄ ውስጥ ለተጠየቀው ይህንን የጊዜ ርዝመት ለምን መረጥሽ (በመልስ ሰጪው የተጠቆሙትን ሁሉንም ክብ አድርጉ) ነ. ለእናትየው ጤና ጥሩ ስለሆነ፣ 2. ለልጁ ጤና ጥሩ ስለሆነ፣ 3. ኢኮኖሚን ስለማይጎዳ፣ 4. ስራ ስለማይጎዳ፣

28.ስለ የእርግዝና መከላከያ (የቤተሰብ እቅድ አገልግሎት) ሰምተሻል ታውቂያለሽ? ነ. አዎ፣ 2. አልሰማሁም ጥያቄ 29ን ዝለል

29. ለጥያቄ ቁጥር 28 ያለሽ መልስ አዎ ከሆነ ስለ የእርግዝና መከላከያ የመረጃሽ ምንጭ ምንድን ነው? (በመልስ ሰጪው የተጠቆሙትን ሁሉንም ክብ አድርጉ) ነ. ከጤና ዘርፍ፣ 2. ከቤተሰብ፣ 3. ከጓደኛ፣ 4. ከብዙሃን መገናኛ፣ 5. መንግስታዊ ካልሆነ ድርጅት፣ 6. ሌሎች ካለ ይገለፅ

30. ለጥያቄ ቁጥር 29 መልስሽ አዎ ከሆነ ከመጨረሻ ልጅ ወሊድ በኋላ የእርግዝና መከላከያ ተጠቅመሽ ታውቂያለሽ? ነ. አዎ፣ 2. አላውቅም ፣ጥያቄ 33 ዝለል

3ነ. ጥያቄ ቁጥር 30 ማጣቀሻ በማድረግ ለምን ያህል ጊዜ ነው ከመጨረሻ ልጅ ከወለድሽ በኋላ የእርግዝና መከላከያ የተጠቀምሽው ነ. ከ12 ወር በታች፣ 2. ከ18 ወር በታች፣ 3. ከ24 ወር በታች፣ 4. ከ36 ወር በታች፣ 5. ከ36 ወር ባላይ

32.የጥያቄ ቁጥር 3ነ መልስሽን መሰረት በማድረግ ለምን አላማ ነው የእርግዝና መከላከያን የተጠቀምሽው ነ. አራርቆ ለመውለድ፣ 2. የቤተሰብ ቁጥር ለመገደብ፣ 3. ሌሎች ካለ ይጠቀስ፣ 4. አላውቅም ወደ ጥያቄ 33ን ዝለል

33.ለጥያቄ ቁጥር 32 መልስሽ “አራርቆ ለመውለድ” ከሆነ ተከታታይ የሆነ ውልደትን ለምን ያህል ጊዜ ለማራዘም ነው የፈለግሽው ነ. ከ36 ወር (3 አመት) በታች፣ 2. ከ36 ወር (3 አመት) በላይ፣ 3. አላውቅም

34.ከ መጨረሻ ልጅሽ በፊት የ ተወለደው ልጅሽ የ እርግዝና ጊዜ እርግዝና ክትትል ታደርጊ ነበር? ነ.አዎ 2. አይ

35. የ መጨረሻ ልጅሽ የ እርግዝና ጊዜ እርግዝና ክትትል ታደርጊ ነበር? ነ.አዎ 2. አይ

36.ከ መጨረሻ ልጅሽ በፊት የ ተወለደው ልጅሽን የት ነው የወለድሽው? ነ. የጤና ተቋም 2. ቤት

37.የ መጨረሻ ልጅሽን የት ነው የወለድሽው? ነ. የጤና ተቋም 2. ቤት

38. የመጨረሻውን ልጅሽ ለምን ያህል ጊዜ ነው ጡት ያጠባሽው ነ. ከ12 ወር በታች፣ 2. ከ18 ወር በታች፣ 3. ከ24 ወር በታች፣ 4. ከ24 ወር በላይ፣ 5. አላጠባሁም

39.ወደ ጥያቄ ቁጥር 38 በመመለስ በተጠቀሰው ጊዜ ጡት ማጥባት ያቆምሽበት ምክንያት ምንድን ነው? (በመልስ ሰጪው የተጠቆሙትን ሁሉንም ክብ አድርጉ) ነ. ህፃኑ እድሜው ስለደረሰ ፣ 2. በአዲስ እርግዝና ምክንያት፣ 3. እናትየው በመታመሟ፣ 4. በስራ ምክንያት ባለመመቸት፣ 5. ሌሎች ካለ ይገለፅ፣

40.ጡት ማጥባት ሙሉ ለሙሉ መቆም አለበት ብለሽ የምታስቢው መቼ ነው? ነ. ከ12 ወራት በታች፣ 2. ከ18 ወር በታች፣ 3. ከ24 ወር በታች፣ 4. ከ24 ወር በላይ

41.በቂ የ እርግዝና ርዝመት ጥቅሙ ምንድን ነው? ነ. ለ ቤተሰብ ጤና 2. ለ ልጅ እድገት በቂ ጊዜ ይሰጠል 3. ለ ልጅ እድገት 4. በቂ ገንዘብ ለ መያዝ 5. ለ እናትዮው ጤና ጥሩ ነው

42. አጭር የ ጊዜ ርዝመት መውለድ ጉዳቱ ምንድ ነው? ነ. ለ ልጁ ጤና ጎጅ ነው 2. ለ እናትየዋ ጤና ጎጅ ነው 3. ኢኮኖሚን ይጎዳል

43.የ መጨረሻውን ልጅ ከወለድሽ በኋላ የወር አበባሽን መልሰሽ ያየሽው መቼ ነው ነ ከ 6 ወር በፊት 2.6ወር በኋላ፣ 3. አላውቅም፣

44. የ መጨረሻውን ልጅ ከወለድሽ በኋላ ለምን ያህል ጊዜ ነው ከግብረ ስጋ ግንኙነት ታቅበሽ የቆየሽው ነ ከ 45 ቀን በፊት 2. ከ 45 ቀን በኋላ 3. አላውቅም፣

45. ስለ እርግዝና መከላከያዎች ከባለቤትሽ ጋር ትነጋገራላችሁ (ውይይት ታደርጋላችሁ) ነ. አዎ፣ 2. አይ

46. ስለ ፆታዊ ግንኙነት ከ ባለቤትሽ ጋር ትነጋገራላችሁ (ውይይት ታደርጋላችሁ) ነ. አዎ፣ 2. አ