



## EFFECTIVENESS OF CONTRACEPTIVE MEASURES AS MEANS OF CHILD SPACING METHODS AMONG CIVIL SERVANTS OF REPRODUCTIVE AGE

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### **Abstract:**

This study examined the effectiveness of contraceptive measures as means of child spacing methods among the civil servants of reproductive age in Ibadan. The research design used was a descriptive research design. A total number of 110 senior cadre civil servants and 40 junior cadre civil servants making a total of 150 civil servants were selected using accidental sampling technique. A self-structured questionnaire 'effectiveness of contraceptive measures for child spacing methods among civil servants tagged 'CMCSCS' was used. A validated questionnaire by experts with a reliability level of 0.78 was used. Simple percentages and inferential statistic of t-test was used to test the hypothesis at 0.05 level of significance. The findings revealed that the senior cadre civil servants had the knowledge of child spacing from friends, parents and colleagues while the junior cadre identified friends and parents. Very many of the senior cadre used safe periods and withdrawal system among other contraceptives. The results also showed that the major reason why junior cadre space their children was to assist in limiting the size of the family due to their income, while the senior cadre identified many reasons. Further finding showed that there was a significant difference in the type of contraceptive measures used by the senior cadre and junior cadre civil servants. It is recommended that the civil servants should be educated on the need to adopt the effective contraceptive measures.

**Keywords:** effectiveness, contraceptive measures, child spacing, methods, knowledge, senior cadre, junior cadre, civil servants, physical and health education

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## **Introduction**

Child spacing is an aspect in the life of civil servants of reproductive age which they need to be mindful of. This stage is so complex that the civil servants need to observe, because it deals with both the lives of the mother and child. Reproductive age is best between the ages of 20 -35 years, but can decline at the age of 40 years and above. Therefore, reproductive age is a stage a lady or woman is fertile to give birth to child/children. The birth rates in Nigeria are very high. (Nwachukwu & Obasi, 2008). The current prevalence rate of contraceptive use in Nigeria is approximately 11%-13% (Emmanuel, Andrea, John and James, 2010).

According to Family Planning Program (2011) child spacing is the process of allowing mothers to have more time between pregnancies. It is extremely important for mother(s) to wait for a particular time of 18 months before the next pregnancy for the good health of mother and her child/ children. This duration between pregnancies is called "birth spacing". It is the process of planning to be pregnant with a specific time between the birth of a child and the next (Healthizen 2012). According to the United Nations funds for population in activities (2000), some civil servants of reproductive age are not careful of child spacing method. To encourage family planning, preferred contraceptive measures should be available of the women (WHO 2013). According to Hoberaft (2007), Demographic and health surveys (2002), Setty-Venugopal & Upadhyay (2002) and Healthizen (2012), child spacing for more than two years interval will allow civil servants and the children to be healthier. The birth interval of less than 15 months may be connected with maternal death and various complications during pregnancy and birth.

According to World Health Organization (2006), findings of several studies conducted revealed that, pregnancy intervals of at least two years reduce maternal, perinatal and infant death outcomes. Birth intervals especially in rural Upper Egypt are shorter among younger women between 15-19 years old (El-Zanaty & Way, 2006). Planned pregnancy among mothers prevents unwanted pregnancies, induced abortions and reduces the risk of bleeding during pregnancy. It allows mothers the enough time to repair her nutritional reserves before planning another pregnancy (Healthizen 2012). Upadhyey (2002) said that couples need to make their spacing decision based on adequate information and contraceptive choices. In a study conducted by Eko, Osonwa, Osuchukwu, and Offiong (2013), a larger amount of the respondents 239 (78.4%). did not use any contraceptives, while their main reason for contraceptive methods were effectiveness and reliability. In most developing countries, modern contraceptive use has increased progressively over a period of time.

Healthizen (2012) explained that many women do not engage in contraception during breast feeding because they are not aware of becoming pregnant. Others are afraid of the side effects of contraception on the health of their breastfed infant and themselves. Methods of child spacing which couples do choose include Injectable, Implants, Intrauterine Device (IUD), Oral contraceptives, Condom, diaphragm, Abstinences and Cervical cap (WHO 2006). According to Potts (1990) & Rutstein (2005); universally, the most regularly fertility control used are periodic abstinence (7%), withdrawal (8%), condoms (10%), oral contraception (15%), IUD (19%), and sexual sterilization (36%). Modern methods of contraceptives are combined oral contraceptives known "the pill", Implants, combined injectable contraceptives known as monthly injectable, Intrauterine device (IUD), male and female condoms. Other methods are male sterilization called vasectomy, female sterilization known as tubal ligation (WHO 2013, and Healthizen 2012).

The traditional methods of child spacing/birth control can be said to be withdrawal (coitus interruptus) system, it is least effective and requires adequate and planned timing. This requires partner cooperation. It is only effective when carefully and persistently used (WHO 2013). According to Healthizen (2012), the natural ways of birth spacing are abstinence, coitus interruptus, and intercourse during the safe period, while the terminal methods are permanent methods of preventing pregnancy. Female condoms, diaphragms, vaginal sponges, and cervical caps are also methods of preventing live sperms from meeting the eggs. An intrauterine device is fairly reliable but with a low failure rate. However, birth control pills have some side-effects such as headache, nausea, water retention, breast swelling, depression, and weight gain (Healthizen2012).

According to Family Planning Program (2011), some couples may decide not to have sex during their fertility period of a woman's cycle known as a Calendar or Rhythm Method. Adedeji (2006) opined that good knowledge and better understanding in the awareness of family methods such as rhythm method and breast feeding should be known so that they can prevent pregnancy more effectively. The lives of civil servants mothers and their children are usually secured through family planning (Omidiji 2007). Ishola (2000) connoted that the desire to space birth is more common among younger civil servants due to the knowledge they received through media, family planning programmes and conferences they attended. According to Obasa (2000) & WHO (2013), family planning has assisted civil servants' families to have a better time, aid young women to space child bearing and also support them to have reasonable size of their families they desired. In developing countries, about 400 million

civil servants use various family planning methods to prevent undesirable pregnancies (Bulatoa 2003).

In a study concluded in the rural area in Osun state a unlimited occurrence of contraceptive usage amounting to about 66.3% among women of reproductive age identified with availability and cost of contraceptive as major reason for choice (Olugbenga-Bello, Abodunrin and Adeomi, 2011). Contraceptive is used for child spacing to help in reducing fraternal rivalry and parental incomes (Potts 1990 & Rutstein 2005). Satisfactory hours of opening to the health facilities and distance can influence modern contraceptives usage. Informal education and socio-cultural beliefs among women can equally be found to influence modern family planning methods used (Sebastian, Awoonor-Williams, Eliason, Novignon, Nonvignon and Aikins 2014). The major reasons for not using contraceptive methods were the side effect and the desire to have more children. Other factors perceived were danger of pregnancy, low educational status and religious belief of contraceptive (Eko, Osonwa, Osuchukwu , and Offiong 2013), .

There is therefore the need to assess the type of methods used and the effectiveness of child spacing adopted by the junior cadre and senior cadre civil servants, hence this study.

### **Specific Objectives**

1. Determine the civil servants' knowledge about child spacing;
2. Examine the type of contraceptive measures as means of child spacing used by the civil servants;
3. Examine the reasons why civil servants space their children

### **Methodology**

This study employed the descriptive survey research design. This type of research design was considered appropriate because it described the existing situation regarding the respondents' child spacing. The population of the study was made up of all civil servants in Ibadan Oyo State. A total number of 110 senior and 40 junior cadre ministry workers were selected using accidental sampling technique. A self-structured questionnaire 'effectiveness of contraceptive measures as means of child spacing methods among civil servants tagged 'CMCSCS' was used to collect data for this study. The questionnaire contained two Sections, A and B. Section A of the questionnaire dealt with the demographic characteristics of subject (i.e. the age, sex, and rank) and section B

consisted of four sections, which was designed to elicit information regarding the civil servants' knowledge, types of contraceptive measures, and why civil servants space their children.

The questionnaire was validated by experts on the field. The reliability of the instrument was established using the test-retest method on similar group from another section, and found fit for the study. The data for the study was gathered through the distribution of the questionnaire to the 150 respondents personally with the help of two research assistants and the filled questionnaires were collected back on the spot. Data collected were analyzed using frequency distribution, simple percentages and inferential statistic of t-test.

### Demographic data for the study

**Table 1:** Frequency distribution and percentages of respondents by rank, age range and sex

Variables	20-25yrs		26-30yrs		31-35yrs		36-40yrs		Total %	
	Female	%	Female	%	Female	%	Female	%		
Senior cadre civil servants	15	(10)	44	(29.3)	41	(27.3)	10	(6.7)	110	(73.3)
Junior cadre civil servants	08	(5.3)	10	(6.7)	18	(12)	04	(2.7)	40	(26.7)
<b>Total</b>	<b>18</b>	<b>(12)</b>	<b>54</b>	<b>(36)</b>	<b>59</b>	<b>(39.3)</b>	<b>19</b>	<b>(12.7)</b>	<b>150</b>	<b>(100)</b>

### Research Question 1: Where do the civil servants have the knowledge of child spacing?

**Table 2:** Frequency and percentage analysis of respondents' response on knowledge of child spacing

S/N	Determinants	Junior cadre civil servants 40				Senior cadre civil servants 110			
		Agreed %		Disagreed %		Agreed %		Disagreed %	
1.	My parent	32	(21.3%)	8	(5.3%)	89	(59.3%)	21	(14%)
2.	Colleagues in the office	20	(13.3%)	20	(13.3%)	88	(58.7%)	22	(14.7%)
3.	In the television (Media)	12	(08%)	28	(18.7%)	39	(26%)	71	(47.3%)
4.	Seminar/Conferences	16	(10.7%)	24	(16%)	10	(6.7%)	100	(66.7%)
5.	Through Friends	32	(21.3%)	10	(6.7%)	90	(60%)	20	(13.3%)
6.	Family planning programme	11	(7.3%)	29	(19.3%)	22	(14.7%)	88	(58.7%)

From table 2, it is shown that 32 (21.3%) Junior cadre and 89 (59.3%) senior cadre respondents agreed that they had the knowledge of child spacing from their parents while 8 (5.3%) Junior cadre and 21 (14%) senior cadre respondents disagreed that they had the knowledge of day caring from their parents. A total of 20 (13.3%) Junior cadre

and 88 (58.7%) senior cadre respondents agreed that they had the knowledge from their colleagues in office while 20 (13.3%) Junior cadre and 22 (14.7%) senior cadre respondents disagreed that they had the knowledge from their colleagues in the office. A total of 32 (21.3%) Junior cadre and 90 (60%) senior cadre respondents had the knowledge of child spacing through friends. As regards family planning programmes, a total of 11 (7.3%) Junior cadre and 22 (14.7%) senior cadre respondents agreed that they had the knowledge of child spacing through family planning programmes, while a total of 16 (10.7%) junior cadre and 10 (6.7%) senior cadre respondents agreed that they had the knowledge of child spacing through seminar/conference. This is contrary to the earlier researcher Ishola (2000) who stated that the civil servant mothers space their children due to the knowledge and information they received through media, family planning programmes and conferences they attended.

**Research Question 2:** Which of the contraceptive measures as means of child spacing do you as a civil servants adopt?

**Table 3:** Frequency and percentage analysis of respondents' responses of the contraceptive measures as means of child spacing which the civil servants adopt

S/N	Determinants	Respondents							
		Junior cadre 40				senior cadre 110			
		Agreed %		Disagreed %		Agreed %		Disagreed %	
1.	IUCD (Intra uterine contraceptive device)	0	(0%)	40	(26.7%)	20	(13.3%)	90	(60%)
2.	Pills	12	(8%)	28	(18.6%)	18	(12%)	92	(61.3%)
3.	Spermicides	0	(0%)	40	(26.7%)	10	(6.7%)	100	(66.7%)
4.	Condom	18	(12%)	22	(14.7%)	0	(0%)	110	(73.3%)
5.	Douching	0	(0%)	40	(26.7%)	09	(6%)	101	(67.3%)
6.	Cervical cap	0	(0%)	40	(26.7%)	03	(2%)	107	(71.3%)
7.	Diaphragm	0	(0%)	40	(26.7%)	08	(5.3%)	102	(68%)
8.	Implant	0	(0%)	40	(26.7%)	20	(13.3%)	90	(60%)
9.	Injectable	0	(0%)	32	(21.3%)	10	(6.7%)	100	(66.7%)
10.	Abstinence	0	(0%)	40	(26.7%)	09	(6%)	101	(67.3%)
11.	Safe periods	28	(18.6%)	12	(0.8%)	70	(46.6%)	40	(26.7%)
12.	Withdrawal system	12	(8%)	28	(18.4%)	60	(40%)	50	(33.3%)
13.	Tubal ligation	0	(0.6%)	40	(26.7%)	0	(0%)	110	(73.3%)

From table 3, it is shown that 0 (0%) junior cadre and 20 (13.3%) senior cadre respondents agreed that they adopted IUCD (Intra uterine contraceptive device, while 40 (26.7%) junior cadre and 90 (60%) senior cadre disagreed to this statement. No junior

cadre respondents identified with spermicides, douching, cervical cap, diaphragm, implant, injectable, and abstinence. A total of 18 (12%) senior cadre respondents adopted pills, 10 (6.7%) senior cadre respondents adopted spermicide, 09 (6%) senior cadre respondents adopted douching, 08 (5.3%) senior cadre respondents adopted diaphragm, 20 (13.3%) senior cadre respondents adopted implant, 10 (6.7%) senior cadre respondents adopted injectable, 09 (6%), senior cadre respondents adopted abstinence, while no junior and senior cadre respondents adopted tubal ligation. A total of 28 (18.6%) junior cadre and 70 (46.6%) senior cadre respondents also agreed to adopt safe period while 12 (8%) junior and 60 (40%) senior cadre respondents agreed to withdrawal system.

Comparatively, the junior cadre respondents did not embrace the modern methods of contraceptive measures, while the senior cadre respondents were not so much friendly with modern methods of contraceptive measures probably they were afraid of the effects. This corresponds with the statement of the earlier researcher Healthizen (2012) which established that many women do not use contraception because they are afraid of the effects of contraception on their health. This also contradicts the statement of World Health Organization (2013) and Healthizen (2012) which stated that modern methods of contraceptives are combined oral contraceptives known "the pill", Implants, combined injectable contraceptives known as monthly injectable, Intrauterine device (IUD), male and female condoms. Other methods are male sterilization called vasectomy, female sterilization known as tubal ligation, which were supposed to be used for effective child spacing.

### Research Question 3: Why do civil servants space their children?

**Table 4:** Descriptive analysis of why civil servants space their children

S/N	Determinants	Respondents							
		Junior cadre 40				Senior cadre 110			
		Agreed %		Disagreed %		Agreed %		Disagreed %	
1.	I want to have time to care for myself	21	(14%)	19	(12.7%)	93	(62%)	17	(11.3%)
2.	I am educated	24	(16%)	16	(10.7%)	85	(56.7%)	15	(10%)
3.	I will be able to give my child adequate care	28	(18.7%)	12	(8%)	99	(66%)	11	(7.3%)
4.	I want to be effective and efficient at work	08	(5.3%)	22	(14.6%)	104	(69.3%)	06	(4%)
5.	To assist in limiting the size of the family that the income could cope with	32	(21.3%)	08	(5.3%)	100	(66.7%)	10	(6.7%)
6.	To get to place of work promptly	06	(4%)	34	(22.7%)	102	(68%)	08	(5.3%)

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7.	Due to socio-cultural principles	04	(2.7%)	36	(24%)	02	(1.3%)	108	(72%)
8.	Due to religious beliefs,	02	(1.3%)	38	(25.3%)	10	(6.7%)	100	(66.7%)

From the table 4 above, 21 (14%) junior cadre respondents and 93 (62%) senior cadre respondents agreed that they wanted to have time to care for myself, 24 (16%) junior cadre respondents and 85( 56.7%) senior cadre respondents agreed with being educated. A total of 28 (18.7%) junior cadre respondents and 99 (66%) senior cadre respondents agreed that they could be able to give their children adequate care while 08 (5.3%) junior cadre respondents and 104 (69.3%) senior cadre respondents identified that they wanted to be effective and efficient at work, 32 (21.3%) junior cadre respondents and 100 (66.7%) senior cadre respondents said this would assist in limiting the size of the family that the income could cope with. As regards, socio-cultural principles and religious beliefs, 04 (2.7%) junior cadre respondents and 02 (1.3%) senior cadre respondents signified socio-cultural principles and 02 (1.3%) junior cadre respondents and 10 (6.7%) senior cadre respondents identified religious beliefs. The response of assisting in limiting the size of the family that the income could cope with is in line with World Health Organization (2013) which stated that family planning assists them to limit the size of the family. As regards being educated in the table above, this contradicts Eko, Osonwa, Osuchukwu and Offiong (2013), that factor perceived for not using contraceptives was low educational status, whereas the civil servants' response regarding religious beliefs agrees Eko, Osonwa, Osuchukwu, and Offiong (2013), which stated that religious belief is another factor.

**Research Hypothesis 1:** There is no significant difference in the effectiveness of contraceptive measures used as child spacing methods by the junior and senior cadre civil servants.

**Table 5:** t-test difference between the Mean scores of junior and senior civil cadre servants in the effectiveness of contraceptive methods used as child spacing methods

<u>Civil Servants</u>	<u>mean</u>	<u>n</u>	<u>sd</u>	<u>df</u>	<u>t-cal</u>	<u>t-test</u>	<u>decision</u>
Senior cadre	2.72	110	0.84				
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Junior cadre	2.44	40	0.68	142	1.96	1.66	S

Table 5 shows that the calculated t-value at 0.05 level of significance was 1.96, t-test was 1.66, df = 142. The null hypothesis was rejected. The difference in the effectiveness of contraceptive measures as means of child spacing methods by the junior and senior cadre civil servants was significant. This could be that the effectiveness between the

groups was more observed in one group than the other. Therefore, the difference in the effectiveness of contraceptive measures used as child spacing methods by the junior and senior cadre civil servants was pronounced.

## **Conclusions**

From the findings of this study, it is concluded that:

- Majority of the junior and senior cadre civil servants from had the knowledge of child spacing from friends, colleagues in the office and parents.
- The major contraceptive measures adopted for child spacing by both junior and senior cadre civil servants were safe period and withdrawal system. However, the modern contraceptive measures were not embraced.
- Majority of the junior cadre respondents said that they spaced their children because they wanted to have time to care for themselves, they were educated, they wanted to give their children adequate care and to assist in limiting the size of the family that the income could cope with, while the senior cadre respondents indicated that they wanted to have time to care for themselves, they were educated, give their children adequate care, to be effective and efficient at work, get to place of work promptly and equally assist in limiting the size of the family that the income could cope with.
- The hypothesis tested showed that there is a significant difference in the effectiveness of contraceptive measures used as child spacing methods by the junior and senior cadre civil servants.

## **Recommendations**

Based on the findings of this study, the following recommendations were made towards the improvement of pattern of child spacing among the civil servants:

- Civil servants should be counseled to embrace the use of modern contraceptive measures, which should be carefully and consistently used by the couple for child spacing.
- The government should assist the contraceptives companies producing all these devices so that they can carry out more researches to reduce the side effect of most of these contraceptives.
- The governments should have the contraceptives devices available at cheaper price.

- The government should; regulate the population of the nation by make a policy on birth control/child spacing that will bind the couples on the good health of the mother and the child to produce a pleasant family, to possibly eradicate mortality rate among the mother and the child.

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