#### ABSTRACT

The results presented here are based on a fertility survey carried out in Khartoum in 1978. It was shown that the knowledge of family planning is widespread in the city and that the level of ever use of birth control is becoming significant. The popularity of the different methods of birth control is investigated revealing that the pill is used by nearly all ever users. IUD's, rhythm and withdrawal are also relatively popular. A great degree of consistency was found to exist between reports given by husbands and their wives in this respect. The purpose of using birth control is not yet clear. The significant ever use, noted before the third live birth indicates that these methods are used for the purpose of spacing births rather than limiting the number of children.

# Introduction

The knowledge and use of birth control is by no means recent in the Sudan. Native methods of contraception has been refered to in the medical literature(1). In 1965 the Family planning Association was formed by some volunteers working in the fields of medicine, education and sociology. The concept that family planning constitutes a medical service associated with child and mother care was adopted. The acceptors of family planning at the SFPA clinics in Khartoum was 1567 women in 1972/73 which is about 1.3% of the married women of the capital. However, the number of acceptors in the three towns is substantially higher than the numbers registered in the family planning centres.

<sup>(1)</sup> See e.g. The Third Report of the wellcome Research Laborattories, 1908 and Abdel Halim, D.K.S.M., 1939.

<sup>\*</sup> Dr. Mona Khalifa Cairo University-Khartoum Branch

Contraceptive supplies are sold without restriction and a number of acceptors get their supplies through private doctors from pharmacies. The survey conducted by Galal El-Din in the three towns in 1977 shows that only about 8% of the family plnning users depend on the family planning clinics as a source of contraceptives (Galal El-Din, 1976). In rural areas the practice of family planning was also reported. About 10% of the married women in the village of Arbaji were, practicing family planning and 15% indicated a willingness to consider it in 1972 (SFPA, 1972). The import of contraceptives has steadily increased during the past few years. Birth control pills are the main products imported. The quantities of imported contraceptive pills has reached nine million tablets in 1975, five million in 1977. During 1978 the Sudan imported 15 million birth control tablets. These figures include the pills distributed through the pharmacies only. contraceptive injections are also imported and distributed by the same means. In 1975 the Sudan imported 4,000 injections and 7000 1978. . IUD's are also used on a very small scale. They are supplied and inserted by private gynaecologists(2).

The purpose of this paper is to present further evidence of the begining of birth control use in the Sudan and to offer findings. The results are based on a fertility survey which was conducted in Khartoum province (urban and rural areas) in 1978(3). The survey showed that the knowledge of some method of preventing conception is already widespread among males and females in Khartoum (Khalifa, M.A, 1979). In this paper we shall present findings the concerning use of birth control, the methods used, their relative popularity and the timing of the first use.

### RESULTS

### The ever use of contraception

In this study a woman is described as ever-user of birth

<sup>(2)</sup> These statistics were collected by the author from the import files of the Ministry of Health

<sup>(3)</sup> For details on the methodology see(Khalifa, M.A., 1979).

control or contraception if she had at least tried some method of contraception at some stage of her married life. Wives of the sample were asked whether they had ever used a contraceptive method as well as when did they first use a method. Answers to this question were given in the form of: before the first live birth, between the first and the second live birth... and so on. Respondents were also asked to specify the methods they tried from among a list containing twelve well known methods of birth control and also they were allowed to add to the list other methods which they might have used. The same set of contraception questions were asked of the husbands as well.

The data of table(1) makes it clear that a significant proportion of the women of the sample had used some form of birth control. It is also clear that the rural women reported relatively less use than the urban wives. To make comparisons valid the women were classified into marriage cohorts according to the time spent in marriage. The lower ever use of birth control of the rural women is clear in all marriage cohorts. When the urban overall average is standardised using the marriage duration distribution of the rural wives it becomes even higher reaching 69% which is nearly three times the proportion of ever use in the rural areas of the survey.

In the rural sample higher levels of ever use were reported by the younger than the older cohorts. This could be an indication of an upward trend of contraceptive use. In spite of their shorter duration of marriage, the most recently married women appear to have been already subjected to birth control more than the women married for longer durations.

On the other hand the highest level of ever use of birth control reported by the urban wives appears to be among those who have been married for 10-19 years. It could be that despite being older and less receptive to new ideas than the 0-9 duration

cohort, these women have larger families and thus feel the population pressure more. However, the very fact that over half of the urban women married for less than ten years are ever users of birth control, itself suggests that their level of use in the future may exceed that reported by women in the older marriage cohorts in the present survey.

It is noted that the data do not reflect the actual extent of the use of contraceptives, in this society. Although it is shown that a substantial proportion of women had ever used a birth control method, the data do not say anything about the extent of the use, the relative popularity of the different methods and the time or frequencey of use for the different cohorts of women involved and also between the two different samples. Ever-use of birth control "as defined here" does not differentiate between the use of methods with varied reliability, or between the occasional or frequent use of the method in relation to the different categories, of women. Thus, it is difficult to assess the relative importance of birth control in the lives of the different classes of women and also to interpret the differences between them in this respect. Nevertheless, the data provide a starting point for this kind of investigation.

The husbands in both rural and urban samples were more reluctant then their wives to report the ever use of contraceptive methods by themselves or their wives. This observation is stronger in the rural than inthe urban sample. Among the 264 rural couples interviewed, 30.3% of the wives reported ever-use while 15.2% only of the husbands did. And while 55.4% of the urban wives reported ever use only 44.6% of the husbands did from among the 1037 couples interviewed. The responses of husbands and their wives in this respect are shown in table(II).

A possi le explanation of the high proportion of couples, where the wife reported ever-use of birth control and the husb-and did not as compared to the contrary situation, is that

husbands were reporting about their use rather than their wives. This possibility is ruled out because husbands— as well as wives were asked about every method on the list. Also, the strong correlation between the reporting of husbands and wives on the ever—use of the specific methods of birth control— which will be discussed later— confirms that this kind of bias does not exist.

### The methods of contraception used

The agreement between the responses of the different groups of information on the methods of birth control used by them is remarkable. Almost all respondents, wives as will as husbands, who reported everuse of birth control mentioned the use of pills. Male sterilization has never been used in both samples and very rare use of the diaphragm was noticed especially in the rural areas. Table(III) shows that in the rural sample the most popular methods among the wives, after the pill of course, are prolonged lactation, withdrawal, IUD, the condom and rhythm. These same methods enjoy the same degree of popularity among the rural husbands except that the rhythm methos comes first. The less popular methods reported by the rural couples were famale sterilization, injections, abstinence and other methods. It is noted that abstinence was never mentioned by rural husbands as a method used by them for the purpose of birth control. However, sexual abstinence during certain periods of the married life is a well known and observed tradition. Abstinence is practiced after giving birth and also at times of mouring.

In the <u>urban sample</u> both husbands and wives gave exactly the same relative importance to the methods of birth control used. Both of them stated that rhythm, condom, withdrawal, IUD and injections are the most commonly used methods after the pill. On the other hand, famale sterilization, lactation, abstinence and other methods are less common. The urban husbands were more liable to mention abstinence than their rural counterparts and also more than the urban wives.

The only difference between the rural and urban women in the relative popularity of the birth control methods used by them is their position on lactation. While the rural women relied on prolonged lactation as the main method of preventing pregnancy, other than the pill, it was rarely used by the urban women for that purpose. The same difference also occurs between the reports given by the rural and urban husbands.

It is noted that in spite of the lower degree of reporting on everuse by the rural husbands than their wives, husbands were more liable to specify the methods used as demonstrated by the higher degree of reporting for every single miethod. In the urburban sample, wives were more able to report the use of injections IUD, diahpragm, withdrawal, female sterilization and lactation. However, they were reluctant to mention the use of the condom, rhythm, abstinence and other methods.

From the above analysis it is evident that birth control pills have been used by almost all ever users of contraceptive methods in the survey population. Male sterilization has never been used and the diaphragm is the least used. There is a high degree of agreement between the relative importance of the used methods as reported by the husbands and the wives. The rank correlation coefficient is 0.85 and 0.90 for the rural and urban couples respectively. The urban - rural differential as to the relative popularity of the method is negligible except as regards the use of lactation as a method of contraception.

Comparing the responents knowledge of the individual methods of contraception and their use of such methods shows that they are strongly correlated for all groups. The well know methods of birth control are also those most commonly reported by the ever users. This statement is proved by the high rank correlation coefficient between the knowledge of the individual methods and their use. It is 0.76 for the rural wives, 0.74 for the urban wives and 0.79 for the urban husbands.

# When is birth control first used?

The data of table (IV) are derived from a direct question as to when a method of birth control was first used i.e. after which live birth. The data are not easy to interpret. A part from the inability of 24% and 4.2% of the rural and urban ever users respectively to specify the exact time of first use, other problems are also encountered. A woman who had tried a method only once before a certain pregnancy and used another method after a later pregnancy might have difficulty deciding what her reply would be. The question asked about the live birth after which the method was first used and not the pregnancy. The 6.9% of the urban ever users who, for example, reported first use before the birth of the first child include women who have never been pregnant before the birth of the first child as well as those who had had one or more miscarriages, still births and/or deceased children (3). It is highly probable that these women would use birth control methods at that time for medical reasons and not for family planning purposes. Besides, some methods included in the list could have been used at times during the married life with no intention of preventing pregnancy, for example to observe ceratin traditions or for medical reasons. Nevertheless, these data throw some light on the question of when do women first think of using a birth control method in this so'ciety?.

It is shown that about half of the ever users have used a method for the first time at some time before the third live birth. This could be taken to indicate that these mehtods were used for the purpose of spacing the births rather than limiting the number of children.

<sup>(3)</sup> There is a possibility of confusion between the first live birth and the first suriviving child.

### Conclusions

- 1. In spite of the absence of an organised family planning motivation programme in the Sudan, contraceptive knowledge is widespread.
- 2. Birth control practice is begining to take place, at least in the capital city and its surrounding rural areas. The level of ever use of contraceptive techniques is becoming significant. This has been indicated by a number of field surveys and confirmed in this study. The implication of this finding on the demand for organised family planning services is significant.
- 3. The upward trend in family planning practice is indicated by the higher proportions of ever users among the young married couples.
- 4. The careful examination of the popularity of the different methods of birth control is of great value in planning for child and maternal health programmes. Advice should be provided concering side effects of popular methods e.g different types of birth control pills. Some methods can be encouraged and effectively used once the obstacle against using it is known, studied and removed The effect of change in the economic and social standards of families on breast feeding be taken into consideration when planning for the future pattern of birth control.
- 5. The need for further research on family planning is emphasised espacially at this early stage. The fact that the ever users still have high parities stimulates the need for studiying the effectiveness of the birth control procedures. Research should be concerned with the actual application of contraceptives at the community level and whether, both traditional and modern methods, are being adminstered in the proper way and being fully understood by the users. The purpose of birth cotrol practice needs further investigation.

  Are these methods being used for limiting the number of birther or for spacing pregnancies or for other medical

conditions?. All of these points need to be fully understood in order to ensure success of medical services in this area.

Female steritization has been used by the women in this study. On the other hand abortion(voluntry or involuntry) was excluded in spite of its relevance in fertility analysis. These two topics need further examination.

Table (1)
The ever use of birth control by marriage cohorts

Duration of marriage	Rural Number o		Urban Number of		
	Women	ever use	Women	ever use	
0 -9 10-19 20-	202 162 130	30.2 25.3 20.8	494 412 569	58.3 66.7 43.8	
All	494	26.1	1475	55.0	

Table (II)

The agreement of husbands and wives on the ever use of a contraceptive method %

Response	Rural	Urban
Husband and wife reported ever use Husband and wife reported never use Husband only reported ever use wife only reported ever use	8.3 43.9 6.8 22.0	37.1 37.7 6.9 18.2
Total Number of couples	100 264	100 1037

Methods	Rural				Urban			
	Wives	rank	Husbands	rank	Wives	rank	Husbands	rank
Pills	100.0	1	100.0	1	100.0	1	99.8	1
Injections	0.8	8	2.5	6	4.3	6	2.6	6
IUD	2.3	4	5.0	5	7.0	5	5.8	5
Diaphragm	_	10	_	8	2.5	9	0.6	11
Condom	1.3	4	5.0	5	9.4	3	12.5	3
Rhythm	0.6	6	15.0	2	11.8	2	18.4	2
Abstinence	0.8	8	<del>-</del>	8	2.2	10	2.6	6
Withdrawal	3.9	3	7.5	4	7.1	4	6.7	4
F.Sterili-	1.6	6	2.5	7	4.0	7	2.2	8
zation								
M.Sterili-	_	10	-	8	***	12	-	12
zation								
Lactation	7.0	2	10.0	3	3.2	8	0,9	10
Others	<del>-</del> .	10	2.5	7	0.5	11	1.1	9
Number of e	ever							<del></del>
users	129		40		812		463	

Table (IV)
When methods of birth control were first used %

Time of first use				Rural	U	Urban		
				%	Cumulative%	%	Cumulative	
Before first live birth			2.0	2.0	6.9	6.9		
After	r first	live	birth	27.6	29.6	26.3	33.3	
11	2nd	**	*11	20.4	50.0	14.3	47.6	
11	3rd	**	tt	11.2	61.2	11.4	59.0	
111	4th	11	tt	7.1	68.3	10.3	69.3	
11	5th	11	. #	6.1	74.4	6.2	75.4	
11	6th	11	77	6.1	80.5	5.9	81.4	
11	7th	11	11	5.1	85.6	6.4	87.8	
**	8th	11,	lt .	5.1	90.7	5.5	93.3	
**	9th	11	11	4.1	94.8	3.1	96.4	
11	lOth	11	.11	4.1	98.9	5.1	97.9	
11	llth	11	11	1.0	99.9	1.3	99.2	
11	12th	* 11	n	-	100	0.1	99.4	
11	13th		***	_	100	0.6	100	
Total	1. %				100		100	
Numbe	er of w	omen.			98		778	
Don't	t know	respon	ses	¥.,	31		34	
Total	l ever	users			129		812	

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