

# **Knowledge and use of modern contraceptives among Muslim women in Zaria, Nigeria.**

*Keywords: contraception, knowledge, use, Muslim women, Zaria*

## **Introduction**

Islam permits the use of contraception provided that there are strong reasons for it based on the personal circumstances of couples, and provided that they are used for a good cause, and result in no harm (Tantawi, 1988). However, misconceptions about the position of Islam on contraception exist, with many Muslims believing that Islam opposes contraception (Saghayroun et al, 1984; Kats, 1983; Quraishi, 1996; and Ghazal-Aswad et al, 2001). Efforts are being made to correct such misconceptions in many Muslim countries with varying degrees of success. Although the use of modern contraceptive has increased in many Muslim populations (Roudi, 1988; and Hassanein, 2000), the fertility rate among Muslim women is still higher while the contraceptive prevalence is still lower than that of non-Muslim women even within the same country (Kats, 1983; Quraishi, 1996; Abu Ahmed et al, 2003; Tafforeau et al, 1990; and Oheneba-sakyi, 1990). This may be due to the poor educational status among Muslim women (Quraishi, 1996; Roudi, 1988; Tafforeau et al, 1990; Sufian, 1992; and Ahmad, 1985) or may result from inadequate knowledge of modern contraceptive methods and misconceptions about them among Muslim women (Albsoul-Younes et al, 2003; and Tantawy et al, 2001). Other factors that have been suggested as contributing to the higher fertility rates among Muslim women include earlier age at marriage (Abu Ahmed A et al, 2003; Tafforeau J et al, 1990; and Isiugo-Abanihe UC et al, 1993), and polygyny which may lead to pregnancy rivalries (Sargent et al, 2003). In addition, Muslims may view the advocacy for contraceptive

use by Western countries with suspicion because they regard it as a means of keeping Muslim populations low in order to weaken them (Kats, 1983; and Olurode, 2000).

Nigeria has a large Muslim population that constitutes over 50% of the total population mainly located in the northern part of the country, which is less economically developed than the south (Olurode, 2000; and Lecky, 1984). The total fertility rate in northern Nigeria is 6.6 compared to 4.5 in the south while the maternal mortality rate is about 1,287 per 100,000 live births in the north compared to about 225 per 100,000 live births in the south. Similarly, the prevalence of modern contraceptive use among married women is 5.3% in the north and 12.5% in the south with a national average of 9% (NPC/UNICEF Nigeria, 2001). The main causes of maternal mortality include problems arising from high parity and inadequate birth spacing, such as, haemorrhage which accounts for almost a quarter of all maternal deaths in Nigeria (NPC/UNICEF Nigeria, 2001). This study was carried out to document the knowledge and beliefs of Muslim women in a northern Nigerian town and their contraceptive practices with a view to finding ways to improve the contraceptive uptake among these women. This will help to decrease the incidence of problems due to high parity and inadequate pregnancy spacing.

## **Methods**

Two hundred Muslim women attending the Gynaecology and Antenatal clinics of the Ahmadu Bello University Teaching Hospital and the Muslim Specialist Hospital, both located in Zaria, northern Nigeria, were interviewed between August 1, 2003 and October 31, 2003. Two Obstetrics and Gynaecology residents conducted the interviews using a structured questionnaire after obtaining consent from the women.

Open-ended questions were used to obtain information about knowledge of contraceptives and methods used previously or currently. Rates and comparative analyses were carried out on the data using MINITAB statistical software.

## **Results**

The mean age of the women was 28.2 years (SD = 7.29, range = 17 to 45 years). The mean parity was 3.4 (SD = 2.75, range = 0 to 13). 17.6% were nulliparous, 50.2% had a parity of 1 to 4, and 32.2% were grandmultiparous.

One woman (0.5%) was widowed while the rest (199) were married (99.5%). Of the married women, 62.1% were in monogynous marriages while 37.9% were in polygynous marriages. Marriage order was first in 87.8%, second in 8.7%, third in 2.5%, fourth in 0.5%, and sixth in 0.5%, of the women. The mean age at first marriage was 17.2 years (SD = 3.35, range = 12 to 29 years).

The educational status of the women included no education at all in 18 women (9%), Islamic education in 69 women (34.5%), primary school education in 46 women (23%), secondary school education in 45 women (22.5%), and tertiary education in 19 women (9.5%). Two women (1 %) had both primary and Islamic education, and one (0.5%) had tertiary and Islamic education. The various occupations included 168 (91.3%) housewives, 6 (3.3%) students and 4 (2.2%) teachers. Others included one (0.5% each) of each of the following: trader, nurse, pharmacist, tailor, civil servant, and security woman.

There were 15 women (7.5%) that did not know any modern contraceptive method at all, 20 (10%) knew of only one method, 72 (36%) knew two methods, 75 (37.5%) knew three methods, 12 (6%) knew four methods, 3 (1.5%) knew five methods and 3 (1.5%) knew six methods. None of the women mentioned male sterilization as a contraceptive method. There were 42 women (21%) who had used a modern method of contraception previously and 26 women (13%) that were currently using a modern contraceptive. Details are shown in table 1.

**Table 1 should appear about here**

The mean age of the women was not significantly associated with knowledge of various contraceptive methods (p-values using two sample t-tests were 0.99 for pills, 0.48 for injectable contraceptives, 0.05 for intrauterine contraceptive device, 0.28 for Norplant, 0.78 for condoms, and 0.39 for bilateral tubal ligation). The mean age at marriage was also not significantly associated with knowledge of any of the contraceptive methods (p-values using two sample t-tests were 0.82 for pills, 0.83 for injectable contraceptives, 0.05 for intra-uterine contraceptive device, 0.09 for Norplant, 0.72 for condoms and 0.05 for bilateral tubal ligation).

There was no significant association between knowledge of the various contraceptive methods and the parity of the women or the number of previous marriages they had, as shown in table 2.

**Table 2 should appear about here**

The source of information about contraceptives was the hospital alone in 60.8% of the women. Others were the hospital and radio in (18.1%); radio alone (5.8%); friends or

relations (5.3%); hospital, radio and books (4.7%); and hospital and books (1.7%). The following were sources of information in one woman each (0.6% each) – school, hospital and school, hospital, school and friends or relations, hospital and friends or relations, radio and friends or relations, hospital and television. The hospital was mentioned as information source by a total of 87.7% of all respondents, the radio by 29.2%, friends/relations by 7%, books by 6.4%, school by 1.7%, and television by 0.6%.

Of the 21 women who responded to the question on why they discontinued use of contraceptives, 10 (47.6%) said they discontinued use because they wanted another pregnancy, 10 (47.6%) gave side effects as the reason and 1 woman (4.8%) said she got pregnant while using a contraceptive method.

Fifty-one women (27.1%) said they would like to use contraceptives and of these 26 were using contraceptives. Of the 25 women who were not using contraceptives, 10 were pregnant and said they would use a modern contraceptive method after delivery, leaving 15 (7.5%) with unmet need. The reasons for unmet need included fear of side effects of contraceptives in 9 women (60%), fear of husband's reaction in 4 women (26.7%), lack of funds in 1 woman (6.7%), and 1 woman (6.7%) said she wanted to have at least 10 children.

132 women (70.2%) said they would not like to use contraceptives, 5 (2.7%) did not know whether they like to use contraceptives or not and the rest did not respond to the question. Reasons for not wanting to use contraceptives were desire for pregnancy (45.4%), belief that contraception is unislamic (24.2%), and husband's disapproval

(15.1%). Other reasons were fear of side effects (2.3%), belief that they had no need for contraception due to naturally well-spaced deliveries (2.3%), and belief that contraception was immoral (0.8%). The others gave no reason.

The desire for pregnancy as a reason for not wanting to use contraceptives was significantly higher among nulliparous women (71%) compared to multiparous (50%) and grandmultiparous (29.6%) women ( $\chi^2 = 9.90$ ,  $p = 0.01$ ).

Women who had only Islamic education constituted 58.1% of those that felt contraception was unislamic while those with no education at all constituted 3.2% and those with other forms of education alone or with Islamic education formed 38.7%. Women who felt that contraception was unislamic constituted 37.5% of those who had only Islamic education, 25.0% of those who had no education, and 16.9% of those with other forms of education ( $\chi^2 = 6.45$ ,  $p = 0.04$ ).

The mean age was significantly higher for previous or current contraceptive users (31.7 and 32.2 years respectively) compared to non-users (27.2 and 27.7 years respectively): 95% confidence intervals = 2.2, 6.7 and 1.4, 7.6;  $p = <0.001$  and 0.006 respectively. The mean age at marriage was not significantly different for previous or current contraceptive users (17.5 and 17 years respectively) compared to non-users (17.1 and 17.2 years respectively): 95% confidence intervals = -0.8, 1.7 and -1.8, 1.5;  $p = 0.50$  and 0.86 respectively.

**Table 3 should appear about here**

A lower proportion of previous or current contraceptive users were nulliparous (2.1% and 0% respectively) while a higher proportion were grandmultiparous (46.8% and 50% respectively). These differences were statistically significant as shown in table 3.

Women who had tertiary education had the highest proportion of previous or current users (52.6% and 21.1% respectively) compared to those who had no education (14.3% and 14.3% respectively), primary education (8.9% and 6.7% respectively), secondary education (29.5% and 15.9% respectively) or Islamic education (26.6% and 15.9% respectively). The differences were statistically significant for previous use but not for current use as shown in table 3. There was still no statistical association between education and current contraceptive use after controlling for current pregnancy, which could be a confounding factor ( $\chi^2 = 3.60$ ,  $p = 0.61$ ).

## **Discussion**

The mean parity in this study (3.4) was lower than the total fertility rate for the northwestern zone (6.5) of Nigeria (NPC/UNICEF Nigeria, 2001) in which Zaria is located, most likely due to hospital bias. These women were hospital patients attending the clinics for various reasons including infertility and many of them had not yet stopped childbearing (especially with the mean age of 28.2 years), both of which may explain the lower mean parity than expected. The mean age at first marriage was 17.2 years, which is in keeping with previous reports from this part of the country and other Muslim populations (Hassanein, 2000; Abu Ahmed et al, 2003; Tafforeau et al, 1990; and Isiugo-Abanihe et al, 1993). The mean age at marriage was

not significantly different among previous or current contraceptive users and non-users.

Multiple marriages may contribute to high parity and low contraceptive usage as women are expected to bear children for their new husbands but there was no association between the number of marriages and contraceptive use in this study possibly because majority of the women (87.8%) were in their first marriage. It has been suggested that polygynous marriages may contribute to high parity and poor acceptance of contraceptives as women compete with each other (Sargent et al 2003) to prove their worth to their husbands by having many children. Polygyny may not play a very important role because although 37.9% of the women were in polygynous marriages, there was no significant association between previous or current contraceptive use and type of marriage.

Majority of the women had some knowledge of modern contraceptive methods but 7.5% did not know anything at all about them and only 9% were able to mention more than three methods. None of the women mentioned vasectomy as a contraceptive method probably viewing contraception as being entirely a woman's affair. Poor knowledge of contraceptive methods and their side effects are important factors that limit the uptake of contraceptives (Ghazal-Aswad et al, 2001; Tafforeau et al, 1990; Albsoul-Younes et al, 2003). The commonest source of information about contraceptives was the hospital (87.7%). This is not unexpected as women often come into contact with contraceptive information from health care providers during pregnancy and childcare visits (Sargent et al, 2003; and Olurode, 2000). Although older women, women who married at earlier ages, and women who have had multiple



marriages are more likely to have higher parity and hence more likely to have come into contact with health care providers for maternity and child care, knowledge of modern contraceptive methods was not significantly associated with age, age at first marriage, parity or previous marriage. This may be due to poor utilisation of health care facilities as evidenced by the fact that about 30% and 91% of women in this environment do not have medical attention during pregnancy and delivery, respectively (NPC/UNICEF Nigeria, 2001). The radio was the source of information about contraception in many of these women (29.2%) in keeping with findings from a previous study from northern Nigeria (Olurode, 2000). The radio could be used as an important alternative for providing reproductive health information to women who do not utilize health care facilities especially as up to 40.4% of women in this area listen to the radio daily (NPC/UNICEF Nigeria, 2001). The source of information was not significantly associated with previous or current contraceptive use.

Majority of the women had never used modern contraceptives – previous users were 21% while current users were 13%. These rates are higher than expected most likely due to hospital bias. The most popular method among both previous (52.4%) and current (50%) users was the injectable contraceptive most likely due to the fact that it ensures privacy and does not interfere with coitus. This finding is unexpected among Muslim women as the injectable contraceptive is frequently associated with irregular bleeding that disrupts prayers and sexual intercourse (Ghazal-Aswad et al, 2001).

As expected, previous or current use of contraceptives was significantly associated with higher age and higher parity. This is because older women are likely to be of higher parity thus being more likely to accept contraceptives. Education was

significantly associated with previous contraceptive use ( $p = 0.002$ ) as has been reported in previous studies (Quraishi, 1996; Roudi, 1988; Abu Ahmed et al, 2003; Tafforeau et al, 1990; Sufian, 1992; and Ahmad 1985). The proportion of women that were current contraceptive users was higher among those who had tertiary education compared to other educational groups though this difference was not statistically significant, most likely as a result of the small number of current users (26 women only). Further study using a larger sample with a greater number of current contraceptive users is required. Education delays the age at first pregnancy by delaying the age at first marriage and increases women's understanding of reproductive health issues leading to greater likelihood of contraceptive use, both resulting in fewer well-spaced births.

The reason for discontinuing contraceptive use was because of side effects in almost half (47.6%) of the women who gave a reason while a similar proportion discontinued use because they wanted another pregnancy. The unmet need for contraception in this study was 7.5% and more than half (60%) of the women who had unmet need gave fear of side effects as a reason. This reflects the poor knowledge of contraceptives that exists among Muslim women as has been reported previously (Albsoul-Younes et al, 2003; and Tantawy et al, 2001). The second most common reason for unmet need (26.7%) was husbands' disapproval. This may be an indication of inaccurate information among Muslim men in this environment about modern contraceptives, the position of Islam about their use, or both. A previous study carried out in Egypt also reported similar findings (Tantawy et al, 2001).

The desire for pregnancy was the reason given by most of the women who did not want to use contraceptives. This reason was significantly associated with parity being the reason given by most nulliparous women compared to parous women ( $p = 0.01$ ). This is not unexpected given the high premium placed on childbearing in this environment.

Many of the women (24.4%) who did not want to use contraceptives believed that contraception was unislamic and majority (58.1%) of those who felt this way were those who had Islamic education only. The proportion of women who felt that contraception was unislamic was highest among those who had Islamic education only (37.5%) compared to those who had no education (25%) and those who had other forms of education (16.9%). These differences were statistically significant ( $p = 0.04$ ). One woman felt that contraception was immoral. It is evident from the above findings that misconceptions exist in this population about the position of Islam on contraception. The fact that these misconceptions are widespread among women who had Islamic education may be due to Islamic schools not teaching women about reproductive health issues or due to these women being given incorrect information by teachers who lack accurate information or are biased.

The findings of this study suggest lack of accurate information among Muslim women and men in Zaria about modern contraceptives and the position of Islam on their use. Muslims should be made aware of the position of Islam concerning contraception and the uses and side effects of modern contraceptive methods. Training should be provided for reproductive health workers and Islamic teachers and leaders on reproductive health issues within the context of Islam so that they can communicate

the correct information when required. Islamic schools that cater for adults especially married women, should be encouraged to provide their students with such information. Muslims should be given the opportunity to make informed decisions about their reproductive health without feeling that they are jeopardizing their spiritual well being. Lower parity and adequate birth spacing, in addition to improved education of women, improved standard of living, and adequate, accessible and affordable health care services will help to minimize maternal morbidity and mortality in this environment.

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Table 1: Knowledge and use of various modern contraceptive methods

Method	Know (%)	Don't know (%)	Previous use (%)	Current use (%)
Pills	178 (89.9)	20 (10.1)	9 (21.4)	3 (11.5)
Injectables	159 (80.3)	39 (19.7)	22 (52.4)	13 (50)
IUCD	16 (8.1)	182 (91.9)	6 (14.3)	5 (19.2)
Norplant	33 (16.7)	165 (83.3)	4 (9.5)	4 (15.4)
Condoms	73 (36.9)	125 (63.1)	0 (0)	0 (0)
BTL	10 (5.1)	188 (94.9)	1 (2.4)	1 (3.8)

IUCD = intra-uterine contraceptive device

BTL = bilateral tubal ligation

Table 2: Association between knowledge of various contraceptive methods, and parity and previous marriage

Method	Parity		Previous marriage	
	$\chi^2$ value	P value	$\chi^2$ value	P value
Pills	2.36	0.31	9.70	0.05
Injectables	3.77	0.15	6.19	0.18
IUCD	1.58	0.45	2.46	0.65
Norplant	1.53	0.46	0.82	0.93
Condoms	0.63	0.73	7.63	0.11
BTL	1.73	0.42	1.97	0.74

IUCD = intra-uterine contraceptive device

BTL = bilateral tubal ligation



Table 3: Association between previous and current contraceptive use and various factors

	Previous contraceptive use		Current contraceptive use	
	$\chi^2$ value	P value	$\chi^2$ value	P value
Parity	12.06	0.002	7.96	0.02
Previous abortions	0.63	0.73	0.34	0.84
Education	21.14	0.002	3.65	0.72
Occupation	2.97	0.56	3.85	0.43
Information source	11.29	0.42	11.58	0.40
Previous marriage	1.12	0.89	1.21	0.88
Marriage type	0.21	0.88	0.75	0.39