

Factors Influencing Counselling and Prescription Patterns of Contraceptives among Healthcare Workers in Public Health Facilities in Ogbomoso, Southwest Nigeria

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ABSTRACT

Background: Family planning and hence contraception, improves maternal health. The sources of information about and the acquisition of contraceptives is an important factor to consider in the overall utilization/uptake of contraceptives generally.

Aims: To identify factors that influences counselling, prescription pattern of contraception methods among public healthcare workers and factors influencing it.

Methods and Materials: This was a cross-sectional, descriptive study among consenting health care workers in family planning clinics in public health care facilities in Ogbomoso, Southwest Nigeria. The instrument of survey was a self-administered structured, questionnaire. Data were analysed by SPSS window version 17.0 software package.

Results: The mean age of the respondents was 34.4 ± 6.1 years. More than third (38.6%) of the respondents had practiced for 5-7 years. All the respondents were aware of pills, injectable, IUCD and male condom as a method of contraception. Majority of the respondents' (79.3%) had used a form of contraceptives with 55.9% currently using contraceptives. In all the respondents' health centres pills, injectable, male condom and IUCD were available forms of contraceptives. Larger proportion of the respondents' (55.9%) had changed patient's choice of contraceptives before with the major reason being that most of those patients (30.9%) had inadequate knowledge about the chosen contraceptives and presumed non-compliance with the chosen method (29.6%). In majority of the respondents', past clinical experience (72.4%), marital status of clients and their religion believe were the major factors that most often inform their choice of counselling patients for contraceptives.

Conclusion: The study revealed that clinicians experience, patients' socio-demographics particularly marital status and religious beliefs were major determinants of counselling patterns while prescription patterns for healthcare workers were determined by personal experiences and socio-demographics of patients.

Keywords

Family planning, Unsafe sex, Contraception.

Introduction

With an understanding that family planning may indeed be one

of the most cost-effective development investments towards achieving the Millennium Development Goals (MDG) of improving maternal health [1] the role of family planning as an integral component of obstetric and gynaecological health care comes to the fore.

Unintended pregnancy affects a woman's health in several ways. With an increased risk of unsafe abortion which is among the major causes of maternal death in young women [2] the World Health Organization (WHO) estimates unsafe sex to be the second most important global risk factor to maternal health [3]. Family planning and hence contraception, improves maternal health. Beyond the MDGs, family planning has a direct influence on improving lives worldwide; this is by enhancing national security [4] and optimizing financial resources [5]. The need for family planning is slowly being met for more women, but demand is increasing at a rapid pace [6].

Nigeria has a high maternal mortality rate and low contraceptive uptake rates [7]. Current National data shows that only about 15% of currently married women use any method of modern contraception. The pattern of the choices of contraceptives in Nigeria was also noted to vary from region to region [8]. The sources of both information about and the acquisition of contraceptives is an important factor to consider in the overall utilization/uptake of contraceptives generally [7].

The sources of information about family planning also vary from region to region with the media, healthcare professionals and friends/family members being the major sources [8]. Ameh N et al. in their study [9] and similar studies done [10-13] showed that more than half of the respondents knew about contraception through health personnel. Reports have shown that of the sources of Family Planning Methods and contraceptives available, the private medical sector currently provides family planning to 60% of users, while public sources, such as government hospitals and health centres, provide contraceptives to 29% of users [8].

With a restricted choice/range of contraceptive methods being available and lack of informed choices, health-care providers face the challenge of matching each patient with the method that is best for her [8,14]. This in effect has resulted in lower levels of contraceptive prevalence [14]. A proper evaluation of the woman's individual reproductive desires, medical complications and other health concerns is a necessary first step. Counselling is essential to provide accurate information about the mechanisms, efficacy and safety of available options. Understanding the needs and characteristics of the individual patient can help the health-care provider to direct her towards the method that will best suit her needs in terms of efficacy, safety and ease of use [15-17]. Though multiple factors influence the acceptance, choice and utilization of contraceptives, [18] experience in Nigeria shows that patients respect their healthcare worker's opinion on the choice of contraception to use and hardly question it, though this is gradually changing as people get more educated and more aware [19-21]. Studies have also shown that counselling of women by their Gynaecologist made many women select a different contraceptive method, or when they were previously undecided, they usually opted for the method their gynaecologist recommended [22]. Mohammed-Durosinlorun A, et al. [19] in their study showed that personal choices of doctors may affect how they counsel patients and prescribe contraceptive agents as doctors are not

detached from their environments and have similar cultures and values to the societies they come from [19]. Another study showed that physicians' clinical advice might differ from their personal practices and as women physicians become more prevalent, their contraceptive choices could influence those of their patients [23].

This brings to the fore the interaction of patients and public health care workers. In view of the restricted range of choices for contraceptive users, the influence of counselling and prescription patterns by healthcare workers is very influential on the choice of contraceptives and uptake of contraceptives by women. This study aimed at identify counselling, prescription pattern of contraception methods among public healthcare workers and factors influencing it.

Materials and Methods

This was a cross-sectional, descriptive study among consenting health care workers in family planning clinics of primary, secondary and tertiary health care facilities in Ogbomosho, Southwest Nigeria. The healthcare workers in public healthcare institutions interviewed included community health workers, nurses, midwives, obstetricians and gynaecologists, community health physicians (consultants and residents), community health extension workers (CHEWs) involved in the counselling, prescription and administration of contraceptives. The sample size was determined by the similar study done by Mohammed-Durosinlorun et al. [19] of prevalence 17.2%.

The calculated minimum sample size was 123; after correcting for an anticipated 10% non-response, the sample size was 135, however 150 respondents were recruited. Stratified random sampling technique with stratification done along the lines of cadres (proportional sampling to size). There was a proportional allocation of respondents according to each cadre which served as the strata e.g. consultants, residents, nurses, CHEWs. The required number in each cadre was then selected using simple random technique (balloting technique) and duplication of entry was avoided.

| Cadre | Total number | Number sampled |
|-----------------------------|--------------|----------------|
| Consultant | 18 | 10 |
| Registrar | 52 | 28 |
| Medical Officer of Health | 9 | 5 |
| Nurse | 101 | 54 |
| Community Health Ext Worker | 100 | 53 |
| TOTAL | 280 | 150 |

The instrument of survey was a structured, questionnaire which had three sections.

Section A: Employed to collect the demographic data including age, tribe, religion, educational status and occupation.

Section B: was employed to know about respondent's personal history and knowledge of contraceptives.

Section C: employed to know about respondent's clinical practice / prescription patterns of contraceptives.

The questionnaire was self-administered. All consented health

workers in family planning were recruited while those with less than one year of family planning experience were excluded from the study.

The raw data from the field was screened for inconsistencies. Analysis of data was by computer using statistical package for social sciences (SPSS) version 17. Ethical approval was obtained from the LAUTECH Teaching Hospital Ethical review Committee. The managements of respondents' healthcare facilities were approached with a proposal on the study. Respondents were also duly counselled and the freedom for participation and non-participation was emphasized.

Results

Out of the 150 questionnaires administered, 145 were adequate for analysis (2 questionnaires from the nurses were returned incompletely filled and 3 questionnaires from the CHEW were not returned), giving a response rate of 96.7%. Therefore 52, 50, 28, 5 and 10 questionnaires were analysis from the Nurses, CHEW, Registrar, Medical officer and Consultant respectively.

Table 1 shows the socio-demographic distribution of the respondents. The mean age in years of the respondent was 34.4 ± 6.1 with majority of the respondents in the 25-44years age group. Larger proportion of the respondents (72.4%) were female with male to female ratio of 1:2.6. Majority of the respondents are Christian (73.1%) and larger percentage (97.2%) were Yoruba by tribe. Nurses accounted for 35.9% of the respondents. Larger proportion (49.0%) being degree holder. Majority (38.6%) of the respondents had practiced for about 5-7 years.

| Variable | | Frequency (n = 145) | Percentage (%) |
|------------------------|----------------------|---------------------|----------------|
| Age in years | Mean age \pm SD | 34.4 \pm 6.1 | |
| | Less than 25 | 3 | 2.1 |
| | 25 - 44 | 130 | 89.7 |
| | 45 and above | 12 | 8.3 |
| Sex | Male | 40 | 27.6 |
| | Female | 105 | 72.4 |
| Religion | Christian | 106 | 73.1 |
| | Muslim | 39 | 26.9 |
| Tribe | Yoruba | 141 | 97.2 |
| | Ibo | 4 | 2.8 |
| Occupation | Medical practitioner | 43 | 29.6 |
| | Nurse | 52 | 35.9 |
| | Chew | 50 | 34.5 |
| Academic qualification | SSCE | 4 | 2.8 |
| | Diploma | 59 | 40.7 |
| | Degree | 72 | 49.6 |
| | Fellowship | 10 | 6.9 |
| | 2 - 4 | 43 | 29.7 |
| | 5 - 7 | 56 | 38.6 |
| | 8 - 10 | 19 | 13.1 |
| | > 10 | 27 | 18.6 |

Table 1: Socio-demographic distribution of respondents

SD = Standard deviation SSCE = Senior secondary School Certificate.

Table 2 show respondent's knowledge about contraception. All the respondents were aware of pills, injectable and male condom as a method of contraception. Majority of the respondents (91.7%) were aware that weight gain is an attributed side effect of contraceptive. The entire respondents knew that contraceptives are beneficial.

| Variable | | Frequency (n = 145) | Percentage (%) |
|--|---------------------------------------|---------------------|----------------|
| Types of contraceptives known* | Traditional methods | 130 | 89.7 |
| | Lactational amenorrhea/breast feeding | 133 | 91.7 |
| | Coitus interrupts | 142 | 97.9 |
| | Pills | 145 | 100 |
| | Injectables | 145 | 100 |
| | Male condom | 145 | 100 |
| | Female condom | 104 | 71.7 |
| | Vaginal rings | 82 | 56.6 |
| | IUCD copper-T | 138 | 95.2 |
| | IUS-Mirena | 62 | 42.8 |
| | Implants | 97 | 66.9 |
| | Dermal patch | 66 | 45.5 |
| | Bilateral tubal ligation | 124 | 85.5 |
| | Vasectomy | 112 | 77.2 |
| Attributed contraceptive side effects known* | Weight gain | 133 | 91.7 |
| | Hypertension | 93 | 64.1 |
| | Stroke | 51 | 35.2 |
| | Thromboembolic risks | 59 | 40.7 |
| | Irregular bleeding | 127 | 87.6 |
| | Amenorrhoea | 118 | 81.4 |
| | Excessive hair growth | 12 | 8.3 |
| | Risk of tumours/cancers | 58 | 40.0 |
| | Multiple gestation | 25 | 17.2 |
| | Weight loss | 33 | 22.8 |
| Contraceptives beneficial | Chronic pelvic pain | 33 | 22.8 |
| | Virilism | 20 | 13.8 |
| | | 145 | 100 |

Table 2: Respondent's knowledge about contraceptives.

*Multiple responses.

Table 3 shows respondent's personal history on contraceptives. Majority of the respondents (79.3%) had used a form of contraceptives with 55.9% currently using contraceptives. Larger proportion (67.8%) of respondents that used contraceptives had pleasant experience with about one fifth (20.9%) having an unpleasant experience with the use of contraceptives. About half of the total respondent that used contraceptives had their choice influenced by husband's desire/approval and fear of side effect of contraceptives, 55.2% and 49.0% respectively.

Various forms of contraceptives available in respondents' centre. In

all the respondent's health centres pills, injectables, male condom and IUCD were available forms of contraceptives. Majority of the respondents (76%) were aware about eligibility criteria for contraceptives.

| Variable | | Frequency (n = 145) | Percentage (%) |
|---|--------------------------------------|---------------------|----------------|
| Have you or your spouse ever used any contraceptives | Yes | 115 | 79.3 |
| | No | 30 | 20.7 |
| Are you or your spouse currently on any contraceptives | Yes | 81 | 55.9 |
| | No | 64 | 44.2 |
| Your experience when you used Contraceptives (n=115) | Pleasant | 78 | 67.8 |
| | Unpleasant | 24 | 20.9 |
| | Not sure | 13 | 11.3 |
| Factors that affected choice of this contraceptive (n = 115)* | Personal religious belief | 31 | 21.4 |
| | Husbands desire/ approval | 80 | 55.2 |
| | Fear of side effects | 71 | 49.0 |
| | Desire for early return to fertility | 55 | 37.9 |
| | Current age | 38 | 26.2 |
| | Invasive nature of application | 41 | 28.3 |
| | New method available | 11 | 7.6 |

Table 3: Respondent's personal history on contraceptives.

*Multiple responses.

Table 4 shows respondents' clinical practise of contraception. Majority of the respondents (85.5%) update their knowledge about contraceptives through personal readings. Injectables were the most prescribed (58.6%) in respondents' centre, most prescribed method by respondents (66.9%) was IUCD and the reason being that it is readily available (58.6%). Almost all the respondents (97.9%) were aware about emergency contraceptives. Larger proportion of the respondents (55.9%) had change patient's choice of contraceptives before with the major reason being that most of those patients (30.9%) had inadequate knowledge about the chosen contraceptives and presumed non-compliance with the chosen method (29.6%).

| Variable | Frequency (n = 145) | Percentage (%) |
|--|---------------------|----------------|
| How do you update your knowledge of contraceptives* | | |
| Update courses | 63 | 43.4 |
| Seminars | 74 | 51.0 |
| Internet | 70 | 48.3 |
| Journals | 50 | 34.5 |
| Personal reading | 124 | 85.5 |
| Others (include; discussion with colleagues) | 6 | 4.1 |
| Two most often prescribe contraceptives in your centre* | | |
| Pills | 46 | 31.7 |
| Injectable: depo-povera | 85 | 58.6 |

| | | |
|--|----|------|
| Male condom | 32 | 22.1 |
| IUCD Copper T | 72 | 49.6 |
| Contraceptive most often prefer for your patients* | | |
| Pills | 25 | 17.2 |
| Injectables | 76 | 52.4 |
| Male condom | 58 | 40.0 |
| IUCD copper-T | 97 | 66.9 |
| Implant | 23 | 15.9 |
| Bilateral tubal ligation | 18 | 12.4 |
| Reason for preferring the forms of contraceptives* | | |
| Readily available | 85 | 58.6 |
| Better side effect profile | 55 | 37.9 |
| Ease of administration | 53 | 36.6 |
| Patient's preference | 33 | 22.8 |
| Choice commonly prescribed at work place | 37 | 25.5 |
| Have you had reason to have changed a patient's choice of contraceptives before | | |
| Yes | 81 | 55.9 |
| No | 64 | 44.1 |
| Reason to have changed a patient's choice of contraceptives (n = 81) | | |
| Newer method was available | 2 | 2.5 |
| Patient had inadequate knowledge of chosen contraceptive | 25 | 30.9 |
| Contraceptive requested was not available | 5 | 6.2 |
| You perceived possible poor compliance | 24 | 29.6 |
| Personal/partner experience with similar choice was not pleasant | 17 | 21.0 |
| Patient had a morbid condition | 8 | 9.9 |

Table 4: Respondents' clinical practice of contraceptives.

*Multiple responses.

Figure 1 shows the factors that most often inform respondents' choice of counselling patients for contraceptives. In majority of the respondents, past clinical experience (72.4%), marital status of clients (66.9%) and their religion believe were the major factors that most often inform their choice of counselling patients for contraceptives while data from the Journals, internet etc. (29.7%) and conventional choice (27.6%) hardly influenced their counselling pattern.

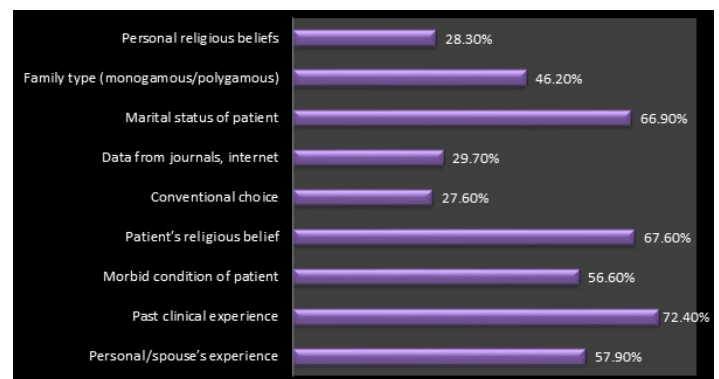


Figure 1: Factors that most often inform respondents' choice of counselling patients for contraceptive.

Table 5 shows the respondents' choice of contraceptives for patient's different conditions. In majority of the respondents IUCD will be the choice of contraceptive for patient with low socioeconomic status (62.1%) and married woman (76.5%) while bilateral tubal ligation (57.3%) and IUCD (54.5%) were the best two choices for multiparous patient. Implant was the most preferred choice of contraception (71.1%) for high socioeconomic status patient while in more than two third of the respondents, condom was preferred for Single woman (72.4%), Post-abortion patient (67.6%), patient with morbid conditions (70.3%), patient that desire quick return to fertility (75.1%) and sexually active teenager (83.4%). For religious client abstinence (63.4%) and condom (55.1%) were the best two choices of contraception in majority of the respondents.

| VARIABLES | Choice of contraceptives (best two) | | | | | | |
|--------------------------------------|-------------------------------------|-----------------|----------------|---------------|---------------------|-------------------|--------------|
| | Abstinence N (%) | Condom N (%) | Pills N (%) | IUCD N (%) | Injectable N (%) | Implants N (%) | BTL N (%) |
| Multiparous patient | 3 (2.1) | 8 (5.5) | 3 (2.1) | 79 (54.5) | 42 (29.0) | 47 (32.4) | 83 (57.3) |
| Low socioeconomic status | 3 (2.1) | 75 (51.8) | 22 (15.2) | 90 (62.1) | 47 (32.4) | 10 (6.9) | 8 (5.5) |
| Nulliparous patient | 65 (44.8) | 108 (74.4) | 25 (17.3) | 13 (9.0) | 17 (11.7) | 3 (2.2) | 0 (0) |
| High socioeconomic status | 2 (1.4) | 12 (8.3) | 8 (5.5) | 44 (30.4) | 63 (43.5) | 103 (71.1) | 20 (13.8) |
| Single woman | 52 (35.9) | 105 (72.4) | 38 (26.2) | 36 (24.9) | 16 (11.0) | 11 (7.6) | 0 (0) |
| Married woman | 3 (2.1) | 37 (25.5) | 18 (12.4) | 111 (76.5) | 76 (52.4) | 19 (13.1) | 0 (0) |
| Desire for quick return to fertility | 31 (21.4) | 109 (75.1) | 13 (9.0) | 91 (62.8) | 4 (2.8) | 14 (9.7) | 0 (0) |
| Sexually active teenager | 54 (37.2) | 121 (83.4) | 17 (11.8) | 35 (24.1) | 23 (13.8) | 9 (6.2) | 0 (0) |
| Religious patient | 92 (63.4) | 80 (55.1) | 2 (1.4) | 27 (18.6) | 18 (16.8) | 14 (9.9) | 5 (3.4) |
| Morbid conditions (HPT, DM, SSDx) | 43 (29.7) | 102 (70.3) | 2 (1.4) | 34 (23.5) | 14 (9.7) | 20 (13.8) | 33 (22.8) |
| Post-abortion patient | 22 (15.2) | 98 (67.6) | 27 (18.7) | 54 (37.2) | 36 (24.9) | 17 (11.7) | 0 (0) |

Table 5: Respondents' choice of contraceptives for patient's different conditions.

BTL: Bilateral tubal ligation, HPT: Hypertension, DM: Diabetics, SSDx: Sickle cell disease.

Discussion

Family planning and hence contraceptive use benefits individuals and countries in many ways. Majorly by avoiding unintended pregnancies and preventing one-fourth of all maternal deaths particularly in Nigeria where maternal mortality figures are high [9]. Adequate counselling and prescription of contraceptive by healthcare providers will improve the uptake of contraceptives nationally and in effect promote achievement of MDG 5. This study reflects the factors considered; both personal and clinical

views of respondents as it affects their patterns of counselling and prescribing contraceptives for end users.

A majority of the respondents had a good knowledge about contraceptive options and their side effects. Healthcare workers undergoing postgraduate training and regular updates i.e. within the cadres of nurses and medical practitioners are expected to have more up to date knowledge of the more recent options of modern contraception [19].

With a male to female ratio of 1: 2.6, a majority of the respondents who are women have had first-hand personal experiences with contraceptive use. This would make it easier for them to identify with contraceptive users who would most often be women [21].

Study done by Ameh et al. showed that among healthcare workers, nurses and midwives were the commonest source of information, knowledge and referral about contraceptives [9]. With 35.9% and 34.5% of the respondents being nurses/midwives and CHEWS (table 1), this study agrees with that. The impact of this is that contraceptive users will most often come in contact with this cadre far more often than the other cadres.

With regard to the number of years of experience, (Table 1) 38.6% of all the respondents had between 5-7 years of clinical experience. This will have an impact on the counselling and prescription pattern these healthcare workers as they would have had experience with patients highlighting satisfaction and side effects noted with prescribed contraceptives.

According to Dixon-Muller, [24] religious believers or observers might choose to avoid certain methods of family planning, such as birth control pill, in an effort to live their lives according to the teachings of their religion. Some religions, such as Catholicism, have restriction on contraception. A majority of respondents were Christians (73.1%). This was reflected in the table 3 where 21.4% of the respondents had religious belief influence their personal choice of contraception used. Of the participants, 63.4% and 55.1% of the respondents' preferred choice for patients with strong religious beliefs were abstinence and condom respectively (Table 5). Also 67.6% of the respondents considered the patients religious belief as a factor in counselling and prescription of contraceptives. This may reflect the assumption that such patients with strong religious outlooks are less likely to opt for methods that were deemed to be invasive or required regular hospital visits where they could be "stigmatised" as being secular by people of their religion.

In the personal choices of contraception among respondents, one has to consider the preferences of his or her partner when choosing a contraceptive option. In Table 3, 55.2% of the respondents had their spouses' approval/desire and fears of side effects (49%) determine their choice of contraception. For example, some men do not like to have sex using a condom as it is believed to reduce sexual pleasure [21,25] and some women have a fear of increased weight gain as side effect of injectable and pills. Other studies study showed that convenience, safety, and effectiveness as the

major determinants for choice of contraceptives [12,13,16,19].

In Table 3, this study demonstrated that contraceptive use was quite common among the respondents or their spouses, 79.3% and 55.9% had past used and currently on contraceptives respectively. This was similar with the other studies which also shows a significant use of contraceptives among respondents [16,19]. Sixty-nine per cent (69%) of the respondents had pleasant experiences with the use of contraceptives. This could explain the reason why, twenty-one per cent (21%) of the respondents were willing to counsel patient and change a patients choice based on a personal or partner's experience with similar contraceptive methods (Table 4). In the study by Mohammed-Durosinlorun et al. 2014 [19] a similar percentage was obtained of respondents whose personal choices and experience may affect their counseling and prescription patterns.

Majority of the centres had 100% availability for IUCD, male condom, injectable and the pills. It is expected that the newer options such as implants and surgical options; tubal sterilization methods will be more likely to be available in tertiary centres. The three commonest centre-based prescriptions of contraceptives were the injectable (58.6%), IUCD (49.6%) and pills (31.7%). Personal preferred choice of respondents for contraceptive users was however different with the IUCD being the most preferred followed by the injectable and male condom. The data in the National demographic survey in 2013 identified the injectable, male condom and the pill as the most commonly used modern contraceptives [8].

The personal preferences of healthcare giver who are the major source of information may impact upon what is being prescribed. The preferred choices by respondents demonstrate IUCD (66.9%), injectable (52.4%) and male condom (40%) are the three preferred options for patients. Majority of respondents gave the ready availability and better side effect profile as major reasons for these preferred methods. There is generally a limited range of contraceptives available. There are some newer methods are available. However, two major issues exist in this regard; availability and affordability. Where they are available, they are still expensive. Some few centres mostly tertiary centres have them at subsidized rates when they are available. Some couples cannot afford to purchase them due to their financial situations. A good example of this is Intra-uterine systems such as Mirena, patches and implanon. In other situations, methods of contraception such as tubal sterilization and vasectomy do not have popular appeal in this environment [22].

Conclusion

This study revealed that injectable is the commonest contraceptive method used. This was closely followed by Copper T and pills. Clinicians experience, patients' socio-demographics particularly marital status and religious beliefs were major consideration of counselling patterns. Counselling and prescription patterns for healthcare workers were determined by personal experiences and socio-demographics of patients. There should be better awareness

of good medical practice guidelines while newer contraceptive technologies should be made more affordable and available.

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