

## Knowledge, attitude and prescription practice of menopausal hormone replacement therapy by doctors in UITH, Ilorin Nigeria.

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### Abstract

**Objective:** This study aimed to evaluate the knowledge, attitude and prescription practice of menopausal-HRT (mHRT) by doctors in UITH, Ilorin.

**Method:** All consenting doctors in O&G, Internal Medicine, Family Medicine, Public Health and Interns at the UITH completed a structured questionnaire. SPSS software version 22 was used for analysis. Associations between categorical variables were tested using the chi-square ( $\chi^2$ ) while the student-t test was used for the continuous variables ( $p < 0.05$ ).

**Results:** Eighty doctors, 56 males and 24 females responded. Majority (63.8%) rated their knowledge of mHRT average; (17.5%) believed they had good knowledge, while (18.7%) had poor knowledge. Gynaecologists had the highest mHRT Knowledge Score (72.4) while public health doctors had the lowest (33.7), (83.7%) had no formal training on the use of mHRT. Fifty-five percent did not think menopause should be treated. Just 25% prescribed mHRT where 58.8% had no reason for not prescribing. Only 18.8% had ever referred menopause patients to specialists. Forty percent use alternative therapies for menopausal symptoms, majorly vitamins and herbs.

**Conclusion:** The knowledge, attitude and prescription practice of the studied doctors was poor. Trainings are still needed in this area.

**Keywords:** Menopause; hormone replacement therapy; doctors

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## Connaissance, attitude et prescription pratique de la thérapie de remplacement de l'hormone ménopausal par des médecins d'UITH, Ilorin, Nigéria

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### Résumé

Cette étude visait à évaluer les connaissances, l'attitude et la pratique en matière de prescription de HRT ménopausique (mHRT) par des médecins d'UITH, Ilorin.

**Méthode de l'étude:** Tous les docteurs en O & G, en médecine interne, en médecine familiale, en santé publique et en santé publique et les stagiaires de l'UITH ont rempli un questionnaire structuré. La version 22 du logiciel SPSS a été utilisée pour l'analyse. Les associations entre les variables catégorielles ont été testées à l'aide du chi-carré (2), tandis que le teste d'étudiant était employé pour les variables continues (p <0.05).

**Résultat :** Quatre –vingt (80) médecins, 56 hommes et 24 femmes ont répondu. La majorité (63.8%) ont évalué leur connaissance de la moyenne de mHRT; (17.5%) pensaient avoir de bonnes connaissances, alors que (18.7%) avaient de faibles connaissances. Les gynécologues avaient le score de connaissances mHRT le plus élevé (72.4), tandis que les médecins de la santé publique avaient le score le plus bas (33.7), (83.7%) n'avait aucune formation officielle sur l'utilisation des mHRT. Cinquante-cinq pour cent ne pensaient pas que la ménopause devrait être traitée. Seulement 25% ont prescrit un mHRT alors que 58.8% n'avaient aucune raison de ne pas le prescrire. Seulement 18.8% avaient déjà référé des patientes ménopausées à des spécialistes. Quarante pour cent ont recours à des thérapies alternatives pour traiter les symptômes de la ménopause, principalement les vitamines et les herbes.

**Conclusion:** Les connaissances, l'attitude et la pratique en matière de prescription des médecins étudiés étaient médiocres. Des formations sont encore nécessaires dans ce domaine.

**Mot-clé :** Ménopause, traitement hormonal substitutif, médecins

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## INTRODUCTION

Menopause is a physiological event that signifies the end of a woman's 33 reproductive life due to permanent loss of ovarian follicular function (1). The hormonal changes at menopause are associated with numerous physical, emotional and sexual dysfunctions of varying severity. Among the commonly encountered symptoms of menopause are hot flushes, vaginal dryness with dyspareunia, urogenital symptoms, mood changes, sleep disorders as well as osteoporosis and heightened risk of cardiovascular disease (1,2).

Over the years, Hormone Replacement Therapy (HRT) has been used successfully to treat menopause-related vasomotor symptoms and to protect against osteoporosis (2). However, a number of side-effects have also been observed with its use. Women's Health Initiative (WHI), a multi-centre randomised controlled trial of Oestrogen plus Progestin among 16,608 American post-menopausal women with intact uteruses showed a significant increase in hazard risk for invasive breast cancer, stroke, coronary artery disease and venous thrombosis (3). On the other hand, according to the study, menopausal – HRT (mHRT) seemed to be protective against osteoporosis, colorectal cancer and endometrial carcinoma (3).

Some researchers however tried to do a re-analysis of the WHI data and found that the side effects may not be as serious as earlier portrayed (4,5). In spite of this, many physicians and patients still have reasons to question the safety of menopausal hormone therapy (6). There is also no consensus among the various practice regulatory bodies with regards to use of HRT in menopause.

In an Enugu based study in 2009, less than 1% of the 209 women studied were aware of mHRT and none had ever been treated with it (7). A similar study carried out in Benin showed that none of the women studied was on mHRT and only 7.3% had awareness about it (8). This is partly because of unwillingness on the part of the women to use them and also because of prescription inertia on the part of the physicians. A recommendation by a doctor is a major determinant of mHRT use among the women. Majority of non-users would consider mHRT if so recommended by their doctor (2,9).

It is important therefore that doctors attending to menopausal women familiarise themselves with the current guidelines in the use of mHRT and form a practice opinion that is evidence-based and that will give optimal quality

of mid-life health to their clients. This study therefore set out to evaluate the doctors' knowledge, attitude and prescription practice of HRT for menopause-related symptoms.

### General Objective

To determine the knowledge, attitude and current prescription practice of menopause-HRT (mHRT) by doctors in University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria.

### Specific objectives

1. To determine the knowledge base of the doctors concerning the indications, contra-indications, effects and side effects of mHRT use in menopause
2. To assess their views and attitudes about use of mHRT to treat menopausal symptoms
3. To determine their current prescription practice.

## MATERIALS AND METHODS

**Study Site:** The study took place at University of Ilorin Teaching Hospital (UITH), Ilorin, Nigeria. Ilorin is the capital city of Kwara state located in the Middle Belt of the country with a population of 781, 934 according to 2006 national population census (10). The hospital is a 500-bed third-tier healthcare facility that serves as a referral centre for the whole state and its environs. It has virtually all the major clinical departments and units like Internal medicine, Surgery, Obstetrics and Gynaecology, Paediatrics, Family Medicine, Geriatrics as well as Community Medicine and Public Health.

**Study Design:** It was a descriptive cross-sectional study.

**Study Population:** All medical practitioners in UITH attending to women in menopausal age group

**Sample Size Determination:** All consenting doctors that met the inclusion criteria

### Inclusion Criteria

1. All doctors in Obstetrics and Gynaecology Department
2. Doctors in Internal Medicine
3. Family Physicians
4. Public Health Physicians
5. Interns

### Exclusion Criteria

1. Any doctor that was not in active practice

- during the study period
2. Any doctor not regularly attending to women in menopause or peri-menopause (less than 5 per month)

### Method

Each study candidate was interviewed via a self-administered questionnaire with several domains including:

1. Socio-demographics
2. Knowledge of mHRT
3. Views and attitudes towards mHRT
4. Prescription practice of mHRT

### Research Instrument

The research tool was a self-administered questionnaire developed from some other questionnaires that have been used in previously published works on the same topic (11,12,13). The questionnaire is a 57-item questionnaire under 3 domains:

- i. Knowledge domain has 29 questions on indications and contra-indications to the use of mHRT
- ii. Attitude domain has 16 questions while
- iii. Practice domain has 12 questions

**Scoring of Domains:** Domain scores are based on the current practice guidelines on menopausal HRT<sup>1</sup>. A mark was awarded for a correct answer while a wrong answer or un-attempted question attracted no mark.

**Knowledge Score:** The global Knowledge Score was computed by transforming the sum total score for Knowledge Domain on a scale of 0 to 100, where 0 represents “No knowledge at all” and 100 represents “highest knowledge attainable”.

**Sampling Technique:** The doctors that met the inclusion criteria were identified and contacted. Detailed information about the study was given to all the prospective candidates and questionnaires were served following verbal consent.

**Statistical Analysis:** Data were analysed using the SPSS statistical software version 22 (14). Continuous variables were generated as means  $\pm$  s.d while the categorical variables were presented as frequency and proportions. Associations between categorical variables were tested using the chi-square ( $\chi^2$ ) while the student-t test was used for the continuous variables. A p value of  $<0.05$  was taken as statistically significant difference.

**Ethical Consideration:** Ethical approval for the study was gotten from the Ethics and Research Committee of the University of Ilorin.

**Benefit to Science:** Doctors are known to play crucial role in providing medical education for patients in Africa. The results from this study will help in formulating a policy about training and re-training of healthcare specialists in Nigeria with regards to management of menopause-related complaints.

**Benefit to Individuals:** Up-to-date knowledge and evidence-based practice among the doctors will assist them to take health decisions that will improve the overall quality of life for climacteric Nigerian women.

**Funding:** The study was fully funded by the researchers. It was carried out at no cost to the respondents.

## RESULTS

### Demographic Findings

Eighty doctors were recruited from the University of Ilorin Teaching Hospital in Kwara State. 70% (56) male and 30% (24) female. Majority 67(83.75%) were of the Yoruba tribe while the remaining 13(16.25%) were from other ethnic groups. Twenty-four (30%) were from the department of internal medicine, 13 (16.2%) were from Family Medicine, 19 (23.8%) were from Obstetrics and Gynaecology, 15(18.8%) were Public Health physicians while the remaining 9 (11.2%) were Interns. A total of 46 (57.5%) were Christians while 33 (41.3%) were Muslims while one of the respondents did not subscribe to any religion.

### Doctor's Knowledge of mHRT

From the self-assessment of mHRT knowledge, a huge majority 51 (63.8%), rated their knowledge average; only 14 (17.5%) believed they had good knowledge of HRT, while 15 (18.7%) admitted that their knowledge of menopausal-HRT was poor. Only 13 (16.3%) claimed to have had any formal training on the use of menopausal hormone replacement therapy in the last 5years, the other 67(83.7%) agreed they had no formal training.

As many as 20 (25%) of the doctors did not have any source of information about mHRT; 32 (40%) referred to textbooks, 17 (21.3%) consulted journals, 7(8.8%) said they got information from lectures, 3(3.8%) claimed to have accessed mHRT information through the

internet while one of the respondents had multiple sources of information.

On the use of mHRT, 28 (35%) of the respondents submitted that they had no idea of how long HRT should be administered. Twenty-one (26.25%) felt it should not be taken for more than 5 years, an equal proportion of respondents also felt mHRT could be used for up to 10 years, 2 (2.5%) said it could be used for more than 10 years while 8 (10%) believed it could be used indefinitely.

### Doctor's mHRT Knowledge Score

Mean mHRT knowledge score was 53.3 ( $\pm 2.8$ ) as shown in Table 4. The study shows that male doctors have significantly higher knowledge scores (57.4) than their females counterparts (44) ( $p=0.03$ ). The gynaecologists had the highest mHRT knowledge score (72.4) while the public health physicians had the lowest rating of 33.7 ( $p=0.00$ ).

A linear association was observed in the mHRT knowledge score and Awareness. Those who claimed to have good awareness of mHRT had a significantly higher score (71.2) than those with poor awareness (45) ( $p=0.03$ ), while those who had formal training also had a significantly higher score (73.1) than those without any formal training ( $p=0.007$ ).

There was no significant association between knowledge of HRT and year of graduation ( $p=0.25$ ) nor with age group ( $p=0.155$ ). In addition, no observable difference in the doctors' knowledge of HRT between the two main religious groups in Nigeria. ( $p=0.641$ ).

### Doctor's Recommendation of mHRT for Treatment of Menopausal Symptoms

From the study, 21 (26.3%) believed menopause is a physiological condition, 57 (71.2%) believed that menopause symptoms are clinical conditions, while 2 (2.5%) of the doctors agreed they don't know.

Out of the 80 doctors, 33 (41.2%) thought menopausal symptoms should be treated, 44 (55%) believed it should not be treated clinically while 3 (3.8%) said they don't actually know.

### Doctor's Opinion on Contraindications to use of mHRT (Table 3)

Sixty-five (81.3%) doctors were of the opinion that mHRT was contraindicated in women with breast cancer and 56% of them would not recommend it for patients with family history of breast cancer. About equal number 58 (72.5%) opined that mHRT should not be used in

Endometrial Carcinoma and Deep Vein Thrombosis while up to (65%) of them felt same way for women with stroke. mHRT was deemed contraindicated in hypertension by 36 (45%) and 26 (32.5%) for women with diabetes mellitus.

### Doctor's Practice of mHRT

Out of the 80 doctors that responded, a total 76 (95%) indicated that they attended to menopause women while the remaining 4 (5%) did not. Twenty (25%) saw more than 10 menopausal women every month, 24 (30%) saw between 5 and 10, while 32 (40%) did not see beyond 5 menopausal women in a month.

Although as many as 59 (73.8%) out of the 80 respondents indicated that they encountered menopause-related symptoms on a regular basis, only 29 (36.3%) of the 80 doctors discussed menopause with their patients.

It is worthy of note that, only a quarter, 20 (25%) of the 80 respondents prescribed HRT in any form for menopause related symptoms, 60 (75%) did not prescribe at all. Twelve (15%) did not prescribe mHRT for fear of side effects, 47 (58.8%) had no reason for not prescribing while the remaining one person did not believe in mHRT at all.

Twelve (15%) prescribed oral form of mHRT, 6 (7.5%) prescribed vaginal cream while 2 (2.5%) prescribed injectable. Whereas, out of the 20 doctors that prescribed mHRT, only five (25%) indicated that they encountered side effects, 15 (75%) admitted mHRT was quite effective.

With regards to patient referral, only 15 (18.8%) out of the 80 respondents had ever referred patients to a specialist because of menopause issues, 11 (73.3%) out of these 15 doctors referred to the gynaecologists, 2 (13.3%) of them referred to physicians while the remaining 2 (13.3%) did not indicate the specialty they refer to.

32 (40%) of the 80 doctors indicated that they used alternative methods to treat menopause symptoms. 19 (23.75%) prescribed vitamins, 10 (12.5%) encouraged the use of herbal mixtures while the remaining 3 (3.75%) did not indicate what they prescribed as alternative method.

### DISCUSSION

This is the first time the knowledge base of health care providers about use of menopausal hormone replacement therapy is being evaluated in Nigeria. Majority of the studied doctors lacked self-confidence when handling issues about mHRT. This study shows that only a very small

proportion of the physicians in UITH Ilorin (17.5%) demonstrated self-confidence in the practice of mHRT, while a vast majority (63.8%) admitted that their knowledge about use of mHRT in treating menopausal symptoms was only average.

In Africa, most women in the post-menopausal age group are illiterate and therefore depend heavily on their doctors and other health care providers for health-related information (7,8). Where the knowledge base and self-confidence of the health care provider (HCP) is lacking or deficient, it will impact negatively on the patients' overall health-related quality of life (7,8).

In spite of a plethora of information about menopausal hormone therapy available in the public domain like journals, review articles and practice guidelines (7,8,15,16,17,18,19). It is surprising to note in this study that as many as 25% of the studied physicians claimed that they did not have any source of information at all about mHRT. Only 16.3% had at least one update training related to menopause care in the past 5 years. These figures are comparable to the findings in a similar study (15) in the Middle East where 82.4% of primary health care physicians surveyed had just moderate knowledge of mHRT (15). In that same study, the majority of the respondents were oblivious of the benefits of mHRT described in literatures.

Using the menopause - HRT Knowledge Score, the mean mHRT score was 53.3. This clearly showed that the mHRT-knowledge base of doctors attending to menopausal women in Ilorin, Nigeria was grossly deficient compared to results from other developed countries (13,16,17). A similar study carried out in Ontario, Canada showed that the physicians' knowledge about mHRT was consistent with recommendations in the published literature (13).

Our study also found out that the gender of the doctor, the speciality of practice, access to formal training and re-training as well as self-perception were the factors that were significantly associated with mHRT knowledge. Male doctors appeared to be more knowledgeable. This is paradoxical in the sense that women would naturally be expected to take more interest in women health. Those who had formal training in menopause as well as those in Obstetrics and Gynaecology appeared to fare better than others. Religion, tribe and graduation year of the doctors did not appear to play any significant role.

In our study, most of the physicians

interviewed (88.8%) were aware of the positive benefits of mHRT in relieving vasomotor symptoms like hot flushes, vaginal dryness and dyspareunia only a very few believed in its usefulness in cardio-protection and stroke prevention. Other symptoms that seem to enjoy the attention of doctors in menopause include loss of libido and osteoporosis. Earlier studies looking at the benefits of menopause - HRT showed that mHRT had a complex pattern of risk and benefits (16,23). While it was considered appropriate for symptom management in some women, its use for chronic disease prevention had to be done with caution (16). A more recent re-analysis of the same old data however opined that the side effects attributable to MHRT might not be as deleterious as earlier claimed (17).

Almost all the doctors interviewed attend to women in post-menopausal age group and encounter menopausal symptoms quite reasonably well. But it is surprising that only 36.3% discuss menopause with their patients and only 25% have ever prescribed MHRT in any form at any time. Most doctors do not have any reason for not prescribing while some hesitate to prescribe because of fear of side effects. In the earlier referenced Middle-East study (15), 88% of the Primary Health Care physician studied discussed menopausal symptoms with their clients while 45.1% recommended mHRT for them. This shows that the prescription rate for mHRT among Nigerian doctors is quite low compared to other parts of the world. This figure is however a slight improvement over the findings in some earlier Nigerian studies where prescription was absolutely nil (7,8).

Nigerian doctors need to update their knowledge of HRT to treat menopausal symptoms, such that those who would benefit from hormonal intervention will not be denied and the others would not be unduly exposed to the side effects. This will enhance the overall health-related quality of life of the women in this age group. It is particularly imperative because, with global improvement in health standard, more women will spend longer period of their lives in menopausal years, and their doctors need to have enough knowledge base to provide optimal, evidence-based health care (1,3).

Majority (75%) of prescribers in our study found mHRT to be effective and a very small proportion of them (25%) encountered at least one side effect during its use. This finding is consistent with existing literatures and practice guidelines where menopause HRT is judged to be effective for control of menopausal symptoms

with minimal side effects if patients are well selected. It is now self-evident that doctors in Nigeria need to update their knowledge of mHRT to beat their prescription inertia.

With respect to the use of alternative treatment options for managing menopausal symptoms, close to half (40%) of the subjects used one form of alternatives or the other. The most commonly used alternatives were vitamins and herbs. A similar cross-sectional study showed that most Nigerian gynaecologists preferred to treat severe menopausal symptoms with psychotherapy and anxiolytics (21). Several other therapeutic alternatives abound globally for combating climacteric symptoms but they have not been well studied in Africa (8,21). It would be desirable to subject these products to thorough scientific scrutiny before committing them to clinical use.

## CONCLUSION

The knowledge base of doctors in Ilorin, Nigeria about menopause-HRT was far less than their counterparts in developed countries. Training and continuous re-training in use of mHRT should be encouraged in all medical schools and residency training programmes in Nigeria. This will foster evidence-based practice among the physicians and thus promote menopausal health-related quality of life.

**Conflicts of interest:** The authors declares no conflicts of interest.

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**Table 1.** Opinions on efficacy of menopause-HRT

<b>Menopause Symptoms</b>	<b>N (%) Effective</b>	<b>N (%) Ineffective</b>	<b>N (%) Don't Know</b>
Hot flushes	71 (88.8)	4 (5)	5 (6.3)
Vulvo-Vaginal Symptom	60 (75)	7 (8.8)	13 (16.3)
Low Sex Drive	51 (63.8)	10 (12.5)	19 (23.8)
Skin Wrinkles	35 (43.8)	17 (21.3)	28 (35)
Dementia	20 (25)	30 (37.5)	30 (37.5)
Osteoporosis	67 (83.8)	6 (7.5)	7 (8.8)
Coronary Heart Disease	19 (23.8)	40 (50)	21 (26.3)
Stroke Prevention	17 (21.3)	40 (50)	23 (28.8)

**Table 2.** Attitudes to recommendation of menopause-HRT

<b>Menopausal Symptoms</b>	<b>YES N (%)</b>	<b>NO N (%)</b>	<b>DON'T KNOW N (%)</b>
Hot flushes	66 (82.5)	8 (10)	6 (7.5)
Libido	60 (75)	13 (16.3)	7 (8.8)
Vulvo-Vaginal Symptoms	57 (71.3)	13 (16.3)	10 (12.5)
Skin Wrinkles	32 (40)	34 (42.5)	14 (17.5)
Mood Changes	53 (66.3)	16 (20)	11 (13.8)
Sleep Disorder	33 (41.3)	10 (12.5)	11 (13.8)
Osteoporosis	66 (82.5)	10 (12.5)	4 (5)
Cardiovascular Disease	30 (37.5)	41 (51.3)	9 (11.3)

**Table 3.** Opinions about conditions in which use of menopause-HRT is contraindicated

<b>CONDITIONS</b>	<b>YES N (%)</b>	<b>NO N (%)</b>	<b>DON'T KNOW N (%)</b>
Hypertension	36 (45)	32 (40)	12 (15)
Diabetes Mellitus	26 (32.5)	41 (51.3)	13 (16.3)
Obesity	32 (40)	35 (43.8)	13 (16.3)
Stroke	52 (65)	14 (17.5)	14 (17.5)
Breast Cancer	65 (81.3)	5 (6.3)	10 (12.5)
Fam Breast Cancer	45 (56.3)	25 (31.3)	10 (12.5)
CLD	49 (61.3)	19 (23.8)	12 (15)
Fibroid	23 (28.8)	42 (52.5)	15 (18.8)
DVT	58 (72.5)	11 (13.8)	11 (13.8)
Vaginal Bleeding	31 (38.8)	31 (38.8)	18 (22.5)
Endometrial Carcinoma	58 (72.5)	11 (13.8)	11 (13.8)

**Table 4.** Meanopause-HRT knowledge scores compared for different variables

<b>Variable</b>	<b>N</b>	<b>Score</b>	<b>S.D</b>	<b>ANOVA</b>	<b>Association</b>	<b>p Value</b>
<b>GENDER</b>						
Male	56	53.4	19.9			
Female	24	46.0	17.2	2.48	0.12	0.03***
<b>ETHNICITY</b>						
Yoruba	67	49.2	19.9			
Igbo	3	65.0	5.0			
Hausa	1	50.0	-			
Nupe	1	70.0	-			
Others	8	60.6	14.7	1.30	0.07	0.28
<b>RELIGION</b>						
Christianity	46	53.3	18.7			
Islam	33	48.2	20.3	0.68	0.02	0.51
Atheist	1	55	-			
<b>SPECIALITY</b>						
O&G	19	61.6	13.0			
Physicians	24	52.5	19.1			
Family Med	13	44.6	19.6			
Public Health	15	35.6	17.8			
Interns	9	61.1	15.2	6.0	0.24	0.00***
<b>HRT AWARENESS</b>						
Good	14	58.1	24.6			
Moderate	51	53.3	16.7			
Poor	15	38.2	18.6	3.14	0.11	0.03***
<b>SOURCE OF INFO</b>						
Journals	17	55.6	17.3			
Textbooks	32	55.0	17.6			
Lectures	7	50.7	29.6			
Internet	3	50.0	18.0			
Multiple	1	60.0				
Nil	20	39.7	17.5	1.76	0.13	0.12
<b>FORMAL TRAINING</b>						
Yes	13	68.1	13.9			
No	67	47.9	18.7	6.80	0.15	0.02***