

Awareness of hormonal replacement therapy among females attending primary health care centers in Western Saudi Arabia

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ABSTRACT

Objective: To measure the awareness and the associations between knowledge, personal characteristics, decision making and intention to use hormonal replacement therapy (HRT) among women attending the Primary Health Care (PHC) Centers, Jeddah, Kingdom of Saudi Arabia.

Methods: A cross sectional study was conducted among females attending the PHC centers. Three hundred females were enrolled in the study via multistage random sampling. This study was carried out during November 2001. The first stage was a simple random sampling wherein they choose one PHC center from each of the 6 PHC sectors, and in the second stage, a simple random sampling wherein they choose every third female above 35-year-old attending the selected PHC center for any reason during one month. All those females were interviewed by a questionnaire which include questions from Rabin's menopausal health questionnaire.

Results: The awareness of HRT among females was 27%, and the higher awareness was among educated ($P < 0.001$), and younger working women ($P < 0.001$). The prevalence of using HRT among postmenopausal women was only 5%. The women obtained information of HRT from media 28.8%, from doctors 27.5% and from friends 13.8%. Forty-six percent of females are willing to use HRT, but 39% are unwilling to use. The major factors for women to decide to use or refuse HRT were lack of knowledge and physician's recommendation.

Conclusion: The awareness of HRT among the female general population was low (26.7%), and using HRT even lower (5%), but a high portion (46%) were willing to use HRT. Providing knowledge concerning benefits of risk of HRT will help women in making decisions relating to HRT.

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As medical practice become more cost conscious, it is a great challenge to decide, which preventive measures should be recommended to women. The hormonal replacement therapy (HRT) is one of the most controversial issues in women's health.¹ Postmenopausal is defined as "dating from the final menstrual period regardless of whether menopause was induced or spontaneous."² Menopause is a natural biological event, and occurred after 12 consecutive months of

amenorrhea. This is a result from loss of ovarian follicular function and decline in ovarian hormones particularly estrogen, that lead to unpleasant effects such as hot flush, osteoporosis, coronary artery disease, cognitive impairment, urogenital problems.² Menopause usually occurs between 45-54-years with an average onset of 51 years. Worldwide, over 470 million women aged >50-years and the life expectancy is estimated as 81-years in Canada, 79 years in United States of

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America (USA), 75 years in Arabian Gulf and 71 years in Kingdom of Saudi Arabia (KSA).^{2,4} Postmenopausal HRT has been available for the last 50-years. Originally, offered as unopposed estrogen, that lead to the risk of endometrial hyperplasia and cancer, this negative outcome may have caused women and physicians to fear and resist estrogen therapy.⁵ Initiation of estrogen replacement therapy in the immediate postmenopausal period is a fairly well established practice despite of the ongoing debate at all levels of consideration. All perimenopausal and postmenopausal women should receive counseling on the potential benefits and risks of HRT to inform them regarding its use.^{6,7} The benefits of HRT are: decreases the risk of coronary artery diseases by 17-44% through a favorable effect on serum lipids, this attenuated by concomitant use of Progestin.⁷ Increase bone mineral density (BMD) and decrease fracture risk and there is good evidence that duration of therapy may be more important than dosage.⁶ Improved vaginal and bladder tone and cell integrity. Improve quality of life and memory. On the other hand, the risk factors of HRT are: Unopposed estrogen increases the risk for endometrial cancer and incidence of breast cancer increased by 50%.⁷ Low risk of venous thrombosis and stroke and increased risk of gall bladder diseases.⁵ The most predictor of HRT use are the socioeconomic status, women knowledge, educational level, working conditions, life style, interest in prevention and severity of the symptoms.⁸⁻¹²

Methods. A cross sectional study that was conducted by interviewing all adult female aged 35 years and above, Saudi or non Saudi attending 6 randomly selected PHCCs in Jeddah (Arwabi, Aliskan, Alrewais, Alqriate, Alazizia, Alsalama) during November 2001. The total number of female aged >15-years who attended the PHCCs in Jeddah, KSA is 250,000 per year. Approximately 2000 females per month. According to the literatures, the highest expected rate of HRT awareness was 19% while the least acceptable rate was 15%. By using 95% confidence level power 80% of the sample size calculated using Epi-Info statistical package version 2000 was 300 females for 6 PHCCs, means 50 females per PHCC. It was multistage random sampling. In the first stage: simple random sampling to choose one PHCC from each sector. In the second stage: simple random sampling to choose every third female (age >35 years) attending the selected PHCCs for any reasons during the month of November 2001 was enrolled in the study, and even the first female will be taken randomly. Interview questionnaire includes questions from Rabin's menopausal health questionnaire⁵ to test the knowledge on HRT, its usage, benefits and risks. In addition, there are questions concerning age, nationality, education level and occupation. The interview was carried out by 6 nurses, one nurse from each PHCC. Those 6 nurses were trained to interview the selected females using the questionnaire. There was a one day course to train them

how to ask the questions because the interviewers were nurses from each PHC center. To insure that they ask the questions in the questionnaire the same way as each other, the researchers attended at different intervals, with the nurses one day of the week and attended with her 3 or 4 interview sessions each day. This applied to each nurse in one PHC center.

Results. Three hundred females were interviewed by nurses in the selected PHCCs (response rate 100%). The mean age of females in the study group was 44.8-years (youngest was 35-years, and oldest was 70-years).

Demographic data. There was no statistical significant difference between Saudi and non-Saudi females as regard to the age (Table 1). The younger the female the higher the educational level. The difference between non-educated group and educated groups was statistically significant (P=0.001). The housewife group was older than the other groups (mean age was 45.87 years) and this difference was statistically significant (P=0.001).

Factors affecting hormonal replacement therapy awareness. Age. More than two-thirds of females were not aware of HRT, and only 80 females (27%) were aware. It was found that the female's awareness of HRT were younger (mean age was 42.7 years) than those who were not aware (mean age was 45.6 years). This difference was statistically significant (P=0.001), and this enforces the result that the younger the age the higher educational level.

Educational level. Table 2 shows that the awareness of HRT increased with the advancing in educational level, the higher awareness was among college level (60%) and the lowest awareness was among the non-educated females (10%), this difference was statistically significant P=0.001.

Occupation. Table 3 shows that there were significant relationship between HRT awareness and occupation, the most aware group was the nurses (77%), followed by teachers (52%), while housewives were less aware (18%) and this differences in awareness were statistically significant (P=0.001).

Menopausal state. Table 4 shows there was statistically significant relationship between HRT awareness and menopausal state, the awareness was higher among females who were still menstruating, if compared to menopause females (P=0.021).

Source of information. The women had obtained the information from several sources, they were getting most of their information from media 28.8% and from doctors 27.5%, friend accounted for 13.8% of the sources, and other sources account for 8.8%.

Prevalence of hormonal replacement therapy use. Prevalence of the use of HRT was only 5%. Two thirds of them were using HRT for <6 months, and their mean age was 41.93-years. Forty-six percent of the whole study groups were willing to use HRT; their mean age was 43.59-years. There were significant difference between study group as regards their age and

willingness to use HRT, younger females were more willing to use HRT (mean age was 43.6-years) than the older females (mean age was 46.55-years) ($P=0.005$). **Table 5** as the knowledge on HRT increased, the willing to use HRT increased. More than half of the females who aware of HRT are willing to use HRT and this was statistically significant $P=0.001$.

Causes of unwilling to use hormone replacement therapy. It was realized that 39% of the females were unwilling to use HRT and 15% were uncertain of their answer, the total is 162 females, which constitute 54% of our sample. The causes of unwillingness are listed in **Table 6**.

Discussion. This survey of adult females attending the PHCCs reveals that approximately 26.7% of the females are aware of HRT as treatment of postmenopausal symptoms. This result was lower than Mazhar et al¹³ study where females' awareness on HRT was 58%, and Lydakis et al¹⁴ study in which 71% of the females heard of HRT. Our study is carried out in PHC centers, where patients come to seek medical advices for all medical problems. Their awareness to HRT could be low due to lack of knowledge. The other studies carried out in gynecological clinics where patients are having gynecological problems are much more aware of HRT. The predictors of HRT awareness identified in this study were the age, the educational level, the occupation, and the menopausal state. The HRT awareness was more among females in the younger age group (35-44), working women, and it is increasing with advancing in educational levels, this is expected in our community as KSA is a developing country and almost all the younger population have the chance for education and even it is compulsory for all children to be in the schools. The higher level of HRT awareness was among females who still menstruating, this can be explained as females during this period of life knew the hormonal changes that occurred at this stage. Lydakis et al¹⁴ found in his study that 22 out of 23 women aged 50-59 years were aware of HRT, while 19 out of 33 women aged 30-39-years were aware of HRT. This result was expected due to the western population the information and counseling women on HRT and its relation to quality of life are usually discussed with females at or near menopausal age. Also in Lydakis et al¹⁴ study (35%) of women over 50-years had heard of HRT from their GP, compared with 13% of women under 50-years, and even they found that there was no significant relationship between HRT awareness and menopausal state, where in our study the highest awareness of HRT found to be among females who were still menstruating.

Overall, women are utilizing many sources of information on general health and HRT. In our study, the majority of women received information regarding HRT from the media (28.8%), and doctors (27.5%).¹⁵ Several studies have assessed the sources of HRT information, in North American Menopause Society-Gallup Survey

approximately one third of women received information from their physicians.¹⁶ Lydakis et al¹⁴ reported that 40% of women who were aware of HRT first heard about it from doctor. Newspapers and television accounted for (31%), friend and relatives for (32%). Hunskar and Backe¹⁷ found in a survey of Norwegian women that women's magazines were the most important source of information, and these results are similar to our study results. A published United Kingdom (UK) survey by Moorhead et al¹⁸ showed that between 1981 and 1990, there was a 3-fold increase in HRT use, but by the end of 1990 only 19% of women had ever used HRT with 9% being classified as current users. In Lydakis et al¹⁴ study, they found that 48% of the women had used HRT, and only 28% were current users. This is higher than Rabin⁵ study in which 15% of the menopausal women were currently taking HRT.⁵

The prevalence of current HRT use in our study was only 5% and this is the first study in KSA to estimate the prevalence of HRT use. These suggest that HRT is not yet widely appreciated by women and probably by doctors in the community. Our results are similar to those found in Europe in which the rates of HRT use range was 5.8% in Norway,¹⁹ and 8% in France²⁰ but lower than UK¹⁴ rate which was 28% and 20-40% in the USA.^{14,16} In our study, the lack of knowledge among females was the main reason noted for not taking HRT (55%), and 26.5% of women said that their doctors never offered HRT to them. Refuse to take HRT cited in 22.2%, and fear of HRT side effects was (23.5%), and the most side effects were the cancer (33%), and menstrual such as bleeding (25%), this results could be explained by several factors; proportion of women view menopause as a natural event and HRT is unnecessary, concern about return of the period appear to be a particularly strong deterrent to HRT use. Our findings are similar to other studies in which the reasons for not taking HRT were the fear of side effects, and cancer.^{5,8,15} These preliminary data suggest that fear, lack of knowledge on HRT, and the lack of an informed decision-making process are some of the factors leading to the limited use of HRT. Forty-six percent of our sample are willing to use HRT (**Table 5**). We found willingness to use HRT was increased with knowledge and awareness, from any source. Of the total number of women who knew the HRT ($N=80$), 56 females (70%) are willing to use HRT but they represent (18.7%) of the total study group. This was higher than Mazhar et al¹³ study in which only (35%) were willing to take HRT. Twenty-five percent of the premenopausal women planned to use HRT, this was similar to Walsh et al¹⁵ study in which 28.6% of premenopausal females were willing to use HRT. The highly significant relationship between awareness of HRT and willing to use HRT highlight the important factors on how women make decisions regarding HRT, a major contributing factors were lack of information on HRT, and physician's recommendation.⁹

Table 1 - Demographic data of females attending primary health care centers (N=300).

Demography	n (%)	Mean Age	p-value
Nationality			0.221*
Saudi	218 (73)	45.11	
Non Saudi	82 (27)	43.95	
Educational level			0.001†
None	129 (43)	48.78	
Elementary	62 (21)	43.23	
Intermediate	36 (12)	41.92	
Secondary	53 (18)	40.79	
College	20 (7)	39.80	
Occupation			0.001†
Housewife	221 (74)	45.87	
Teacher	27 (9)	39.74	
Nurse	13 (4)	42.85	
Other	39 (13)	42.87	
Significant level <0.05 *T-test, †Anova-test			

Table 2 - Hormonal replacement therapy awareness in relation to educational level.

Educational level	Hormone replacement therapy awareness		Total n (%)
	Yes n (%)	No n (%)	
None	13 (10)	116 (90)	129 (43)
Primary school	10 (16)	52 (84)	62 (21)
Elementary school	17 (47)	19 (53)	36 (12)
Secondary school	28 (53)	25 (47)	53 (18)
College	12 (60)	8 (40)	20 (7)
Total	80 (27)	220 (73)	300 (100)
Chi-square=59.369, df=4, P=0.001			

Table 3 - Hormonal replacement therapy awareness in relation to occupation.

Occupation	Hormone replacement therapy awareness		Total n (%)
	Yes n (%)	No n (%)	
Housewife	39 (18)	182 (82)	221 (73.7)
Teacher	14 (52)	13 (48)	27 (9)
Nurse	10 (77)	3 (23)	13 (4.3)
Other	17 (44)	22 (56)	39 (13)
Total	80 (27)	220 (73)	300 (100)
Chi-square=40.453, df=3, P=0.001			

Table 4 - Hormonal replacement therapy awareness in relation to menopausal state.

Menopausal state	Hormone replacement therapy awareness		Total n (%)
	Yes n (%)	No n (%)	
Yes	52 (33)	104 (67)	156 (52)
No	25 (20)	98 (80)	123 (41)
Uncertain	3 (14)	18 (86)	21 (7)
Total	80 (27)	220 (73)	300 (100)
Chi-square= 7.72, df=2, P=0.021			

Table 5 - Awareness of hormonal replacement therapy in relation to willingness to use hormonal replacement therapy.

Willingness to use hormone replacement therapy	Hormone replacement therapy awareness		Total n (%)
	Yes n (%)	No n (%)	
Yes	56 (41)	82 (59)	138 (46)
No	11 (9)	106 (91)	117 (39)
Uncertain	13 (29)	32 (71)	45 (15)
Total	80 (27)	220 (74)	300 (100)
Chi-square=31.6, df=2, P=0.001			

Table 6 - Causes of unwillingness to use hormonal replacement therapy.

Causes	Yes	No
	n (%)	n (%)
No symptom	2 (1)	160 (99)
Never had symptom	4 (2)	158 (98)
Fear of side effect	38 (23)	124 (77)
Not offered by doctor	43 (27)	119 (73)
I don't know HRT	90 (56)	72 (44)
I don't want to use it	36 (22)	126 (78)
I have medical problems	0 (0)	162 (100)
HRT - hormone replacement therapy		

In conclusion, the awareness of HRT among the general population was found to be low (26.7%), and even the current HRT use was only 5%. But 46% of the whole study group were willing to use HRT, and willingness increased with HRT awareness. The recommendations that came out of this study are: intense efforts to provide basic understanding of HRT uses, risks and benefits, side effects can serve the dual purpose of facilitating informed choices on medication and minimizing females anxiety about decision. The best methods for providing information including public media, school and direct education from medical professionals.

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