International Journal of Pharmaceutical and Clinical Research
www.pharmaceuticaljournal.in
Online ISSN: 2664-7605, Print ISSN: 2664-7591
Received: 06-03-2019, Accepted: 08-04-2019, Published: 30-05-2019
Volume 1, Issue 1, 2019, Page No. 32-35

Assessment of nutritional problems and dietary behaviors among postmenopausal women in Makhdoom Rashid rural area of Multan, Punjab Pakistan

Tasleem Akhtar[1], Rashida Jabeen[2], Shamim Akhtar[3], Safia Rohi[4]
[1]Nursing Instructor, RN, RM, Specialization in Chn, BSN, MSPH, Collage of Nursing Bahawal Victoria Hospital Bahawal Purr, Punjab, Pakistan
Nursing Instructor, RN, RM, BSN, MSN, Collage of nursing Bahawal Victoria Hospital Bahawal Purr, Punjab, Pakistan
[3]RN, RM, Specialization in Ward Administration and Teaching, Administration, BSN, Principal Collage of Nursing Bahawal Victoria Hospital, Bahawalpur, Punjab, Pakistan
[4]RN, RM, BSN, MPH, MSN, Nursing Manager, Children Hospital & The Institute of Child Health, Multan, Pakistan
DOI: https://doi.org/10.33545/26647591.2019.v1.i1a.36

Abstract
Aim: To determine the Nutrition problems and Dietary behaviors among postmenopausal women in rural area Makhdoom Rashid Multan.
Study Design: Descriptive cross-sectional study design.
Place and duration of study: This study was conducted at the rural area of Makhdoom Rashid Multan, Pakistan from March 2021 to June 2021 for a period of 04 months.
Material and Methods: Participants were selected by purpose convince sampling techniques. After taking informed consent Sample size 101 while 95% is the confidence interval. The questionnaire used to assess the dietary habits of women between the ages of 45 to 60 years. Data was entered, and analysis is done through SPSS version 20.
Results: The age of post-menopausal women were 45 to 60 years about 66% women had medical problem 45% of females had arthritis, 25% had hot flushes, 16% had urinary tract infection, and about 14% vaginal bleeding. The mean energy acquired from the food that they consumed daily was 1291.15 kcal ± 266.61. Around 81.1% women not using any dietary supplement.
Conclusion: Study results showed that food intake practices of menopausal women were not adequate. Menopausal women require psychotherapy regarding balance diet before and after menopause because of the transitional phase in their lives. Health education and preventive guidance of women about menopause should start at the primary health care level, targeting women in their late thirties. Health care providers should reinforce a positive attitude in women and attend to their anxieties and questions.

Keywords: Dietary supplement, nutritional problem, dietary behavior, balance diet

Introduction

According to the WHO, "health is not only the absence of disease but a state of complete mental physical, social and spiritual well-being concerning the financial productivity and performance of an individual". Imbalance of vital nutrients leads to malnutrition thus deteriorating the mental and physical state of an individual, causing poor health and poor work performance thus compromising the whole life of an individual. Dietary resolution can lead to a changing lifestyle with healthier dietary habits [1, 2].

Malnutrition occurs when the daily food consumed does not fully cover the required nutrients. Inadequate nutrition during late middle age can result in a raised risk of ailments such as arthritis, hot flushes, urinary infections, headache, and psychological health problems [3, 4]. On the other hand imbalanced diet may lead to metabolic complications for women such as diabetes, and hypertension. Research has proved that healthy eating habits have a positive impact on women's health. Institute of Medicine (IOM) the USA recommends an optimal pattern of a healthy diet as three meals and two or more snacks per day. The Food Guide Pyramid, developed by the United States Department of Agriculture (USDA), is an excellent tool to make healthy food choices.

According to reports usually eating the following each day; three cups of dairy, two cups of fruits, two cups of vegetable, five ounces of grains, and five ounces of meat and use of fats is required to fulfill the daily optimal

need of nutrients [5]. In Pakistan about 7,9000 women are predisposed to disease which cause serious health issues and eventually lead to death [6].

Researches have demonstrated that favorable eating practices regarding healthy eating during menopause have a positive impact on the health of women suffering from the menopausal syndrome.

Adequate nutrition subsidies to forecast health-related problems and the enterprise of ailments at a later age. According to WHO if the daily meal is selected according to the requirement of balanced nutrition it adds value to the health of an individual. So, a balanced diet covers 9 portions of the food groups in which the major nutrients present like covering carbohydrates, combine servings of products, four servings of vegetables, and one serving each of dairy products, and having meat, fish, eggs, and nuts, and sporadically, fats and sweets [7]. According to NNS 2011 that (53.9%) of Pakistan's elderly number didn't bring ordinary weight; they are either underweight or overweight. According to this survey around (15.8%) were underweight, and (24. 2%) were overweight and the deficit of micronutrients was (6.1%) like zinc, (24.2%) around vitamin A, (20.8%) vitamin D. Aim of this study was to improve the wellbeing and status of menopausal women by encouraging healthy nutrients choosing to decrease the problems related to unhealthy nutrition [8].

Material and Methods

A cross-sectional survey was conducted in a rural Makhdoom Rashid Multan. Makhdoom Rashid is a town with approximately 30,000 population. It is situated 20KM away from district Multan. A purposive sampling technique was used. Sampling size was calculated by using the formula [$n=z^2 P (1-P) /e$. The sample size was estimated based on 50 percent estimated prevalence of malnutrition in older age women by adding a 10% non-response rate, sample size was calculated as 101 participants. The pre-structured questionnaire was developed with questions regarding sociodemographic factors, reproductive health, feeding practices, and problems related to menopause. Standard Food Frequency Questionnaire (FFQ) and 24 hours dietary recall method was adopted from the National nutrition survey 2011 (NNS) to obtain information about food intake. Data was entered and analyzed in SPSS-21.0. Frequencies for the consumption of five major food groups were calculated. Results were compared to the daily recommended intake suggested by the food pyramid by the United States Department of Agriculture (USDA). Food and agriculture organization (FAO) guidelines were adopted to calculate the Women Dietary Diversity Score (WDDS) to assess the adequacy of food consumption.

Results

The mean age of subjects who were post-menopausal women was 51 years with a standard deviation of 4.48. Body Mass Index (BMI) was about 22.6 ± 2.30 of the selected population it is neither underweight nor overweight. About 64.1% had four or more children. Among the participants, the no of illiterate women was about 52.5%. About 93% of women were not doing any job and were housewives. The monthly income of most families was approximately (93%) was < Rs. 10,000, while 7% had monthly income > Rs. 20,000. The average family size was reported as 11 ± 3.91. About more than half (76%) belonged to extended families. About (66%) menopausal women had medical problems from which 45% of females had arthritis, 25% had hot flushes, 16% had urinary tract infection, and about 14% vaginal bleeding. Only (35) 33% have no medical problem. Around 81.1% have not been using any dietary supplement to overcome the dietary deficiency, only (18.8%) of them were using supplements. Most commonly used as an iron supplement. Most of the women consumed recommended frequency of food which is three meals and two or more snacks per day, but consumption of many food groups was not on daily basis. Following food consumption trends were observed: The mean energy acquired from the food that they consumed daily was 1291.15 kcal ± 266.61. The mean of daily meal consumption was calculated as 4.74 (SD $\pm$ 1.16). The most consumed meal was breakfast (100%) followed by dinner (96%) and lunch (94%) respectively. The number of meal/snack consumption was statistically significant with a p-value of 0.019 which is compatible with the IOM standards (Table-1). The diet of most participants did not fill the guidelines of the food group's intake. According to the results of the study, the most consumed food group was dairy, which was consumed by 28% of menopausal women per day. The consumption of poultry products was 10% and fruit was 12%. Only 4% of menopausal women were taking the recommended servings of vegetables. Fats consumed by menopausal women were one to two times and three times per day, 40% and 60% respectively. There was a significant difference in the consumption of grains, vegetables, and poultry groups between respondents and USDA standards. The mean of daily vegetable, fruit, poultry and dairy consumption were 0.75 (SD $\pm$ 0.697), 0.82 (SD $\pm$ 0.673), 0.90 (SD $\pm$ 0.695) and 1.32 (SD $\pm$ 0.960) respectively. The mean fat consumption was 2.37 (SD$\pm$ 0.833) per day. Consumption of grains, vegetables, and poultry was not according to USDA recommendations (Table-2). There was a significant association between-meal consumption per day and the family income with a p-value of 0.04 (Table-3). Results of feeding practices variables indicate that the majority of participants knew that balanced food was important after menopause but the food intake practices of these participants were not up to the recommended standards. Among the participants, 18.8% started to take food supplements after menopause. Mostly reported vitamin intake was of vitamin D and calcium supplements. Women's dietary diversity score was estimated as 4.47 with minimum and maximum values as 2-8. According to the analysis of 24 hours dietary recall, most food groups were consumed by less than 50% of the study participants. Participants consuming daily iron & calcium was reported as 432.1 mg/day, and zinc 12.7 mg/day. Results showed that the individual's nutrient intake was not according to the recommended guidelines (Table-4).

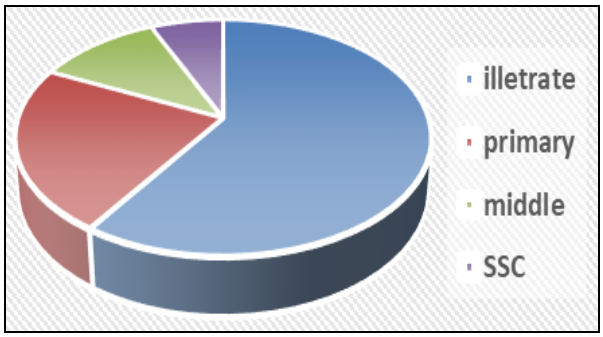

Fig 1: Education status of participation

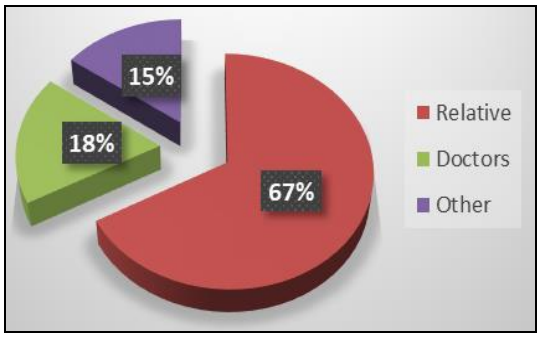

Fig 2: Knowledge about Menopausal

Table 1: Meal distribution/day

Meal Distribution	N (%)	Mean (SD)
Breakfast	106 (100%)	4.14 ± 1.16
Mid-Morning Snack	59 (55.6%)	
Lunch	100 (94%)	
Mid-Evening Snack	86 (81%)	
Dinner	102 (96%)	
After Dinner	94 (88.6%)	

Table 2: Food groups consumption

Food Groups	Mean (S.D)
Grains	4.43 (± 1.16)
Vegetables	0.75(± 0.755)
Fruits	0.82 (± 0.693)
Poultry	0.90 (± 0.697)
Dairy	1.32 (± 0.960)
Fats	2 (± 0.833)

Table 3: Household income and meal consumption

	Household Income			
Meal Consumption per day	< 10,000	10,000 - 20,000	20,000	P -Value
1-3 times	22	0	3	0.042
4-5 times	45	0	12	
>5 times	18	0	6	
Total	85	0	21	

Table 4: Nutrition intake/day

Nutrition Values	Means	S.D
Energy	1291.15 kcal	± 266.61
Carbohydrate	158.8 g	± 16.01
Protein	61.33 g	± 28.39
Fats	44.33 g	± 18.75
Calcium	432.1 mg	± 89
Iron	12.7 mg	± 3.10
Zinc	12.7 mg	± 5.52

Discussion

The present study aimed to understand the importance of a balanced diet among post-menopausal women. The study observed (93%) women were aware of the impotence of food and its nutrition but they unable to change their habits. Similar issue studies in India in 2013 reported that high occurrence of iron-deficient anemia (56%) women inadequate iron intake. In the present study, the participants (53.3%) had diet frequency of meal 1-2/day Most took snacks “after lunch” (88%), followed by after dinner (65%), and after breakfast (55.4%). Similarly, a study done in China showed that more than half (59.9%) of the respondents did not practice the habit of eating snacks between meals. These results are better than china. In the present study, about (66%) menopausal women had medical problems from which 45% of females had arthritis, 25% had hot flushes, 16% had urinary tract infection, and about 14% vaginal bleeding. Similar research conducted in 2003 Canada some of the most common symptoms associate with menopause are, hot flushes. Fatigue, headache, and depression. Another study result shows similarity are conducted in India that shows few menopausal women meeting the guidelines for recommended fruit and vegetable intake. In this study, 18.8% of women reported consuming Calcium, Vitamin D, and Iron supplements whereas NNS 2011 showed 24.4% [14]. The study revealed that menopausal women had craving for mostly sweets (66%). Food craving and avoidance were reported by 67.7% and 44.8% of the women

respectively in the study of Australia. The most avoided food in this study was poultry [15]. Around 66.9% had medical comorbid problems.

Conclusion

Study results showed that food intake practices of menopausal women in the study area were not adequate. Menopausal women require nutrition psychotherapy regarding balance diet intake practices before and after menopausal because of the transitional phase in their lives, experience, medical problems. The women (s) prefer health facility for the discussion Health education and preventive guidance of women about menopause should start at the primary health care level, targeting women in their late thirties. Health care providers should reinforce a positive attitude in women and attend to their anxieties and questions.

References

1. UNICEF. Improving child nutrition: The achievable imperative for global progress: United Nations Children's Fund; c2013.
2. Lichtenstein AH, Appel LJ, Brands M, Carnethon M, Daniels S, Franch HA, *et al.* Diet and lifestyle recommendations revision. A scientific statement from the American Heart Association nutrition committee. Circulation. 2006;114(1):82-96.
3. O'Bryant SE, Palav A, McCaffrey RJ. A review of symptoms commonly associated with menopause: implications for clinical neuropsychologists and other health care providers. Neuropsychology review. 2003;13(3):145-52.
4. Olson MB, Bairey Merz CN, Shaw LJ, Mankad S, Reis SE, Pohost GM, *et al.* Hormone replacement, race, and psychological health in women: a report from the NHLBI - Sponsored WISE Study. Journal of Women's Health. 2004;13(3):325-32.
5. Fowles ER. What's a woman to eat? A review of current USDA dietary guidelines and My Pyramid. J Perinat Educ. 2006;15(4):28-33.
6. Gold EB, Block G, Crawford S, Lachance L, Fitz Gerald G, Miracle H, *et al.* Lifestyle and demographic factors in relation to vasomotor symptoms: baseline results from the study of women's health across the Nation. American Journal of Epidemiology. 2004;159(12):1189-99.
7. Hou JK, Abraham B, El-Serag H. Dietary intake and risk of developing inflammatory bowel disease: a systematic review of the literature. The American Journal of Gastroenterology. 2011;106(4):563-73.
8. Krieger JW, Sitren HS, Daniels MJ, Langkamp-Henken B. Effects of variation in protein and carbohydrate intake on body mass and composition during energy restriction: A meta-regression. The American Journal of Clinical Nutrition. 2006;83(2):260-74.
9. Sheikh A, Saeed Z, Jafri S, Yazdani I, Hussain SA. Vitamin D levels in asymptomatic adults-a population survey in Karachi, Pakistan. PloSone. 2012;7(3):e33452
10. Daba G, Beyene F, Garoma W, Fekadu H. Assessment of Nutritional Practices of Pregnant Mothers on Maternal Nutrition and Associated Factors in Guto Gida Woreda, East Wollega Zone, Ethiopia. Sci Technol Arts Res J. 2013;2(3):105-13.
11. Li C, Samsioe G, Borgfeldt C, Lidfeldt J, Agardh CD, Nerbrand C. Menopause-related symptoms: what are the background factors? A prospective pulation-based cohort study of Swedish women (The Women's Health in Lund area study). American Journal of Obstetrics and Gynecology. 2003;189(6):1646-53.
12. Freeman EW, Sammel MD, Grisso JA, Battistini M, Garcia-Espagna B, Hollander L. Hot flashes in the late reproductive years: Risk factors for African American and Caucasian women. Journal of Women's Health & Gender-Based Medicine. 2001;10(1):67-76.
13. Dennerstein L, Dudley EC, Hopper JL, Guthrie JR, Burger HG. A prospective population-based study of menopausal symptoms. Obstetrics & Gynecology. 2000;96(3):351-8.
14. Aga Khan University P, (PMRC) PMRC, Nutrition Wing MoH, Pakistan. Pakistan National Nutrition Survey; c2011.
15. Wilkinson SA, Miller YD, Watson B. Prevalence of health behaviors in pregnancy at service entry in a Queensland health service district. Aust NZ J Public Health. 2009;33(3):228-233.
16. Pick ME, Edwards M, Moreau D, Ryan EA. Assessment of diet quality in pregnant women using the Healthy Eating Index. J Am Diet Assoc. 2005;105(2):240-246.
17. Jelliffe P, Jelliffe D, Feldon K, Ngokwey N. Traditional practices concerning dietary management during and after diarrhoea: World Health Organization; c1986.
18. Carels RA, Darby LA, Cacciapaglia HM, Douglass OM. Reducing cardiovascular risk factors in postmenopausal women through a lifestyle change intervention. Journal of Women's Health. 2004;13(4):412-26.
19. Chedraui P, Aguirre W, Hidalgo L, Fayad L. Assessing menopausal symptoms among healthy middle aged women with the Menopause Rating Scale. Maturities. 2007;57(3):271-8.
20. Freeman EW, Sammel MD, Grisso JA, Battistini M, Garcia-Espagna B, Hollander L. Hot flashes in the late reproductive years: risk factors for African American and Caucasian women. Journal of women's health &gender-based medicine. 2001;10(1):67-76.