

Research Article

Dietary Habits among Iranian Families

Mehdi Mirzaei-Alavijeh¹, Behzad Karami-Matin¹,

Amin Karami Matin¹, Mohammad Mahboubi²,

Abbas Aghaei³ and Touraj Ahmadi Jouybari^{4*}

¹Research Center for Environmental Determinants of Health,
Kermanshah University of Medical Sciences, Kermanshah, Iran

² Abadan School of Medical Sciences, Abadan, Iran

³ Department of Epidemiology, School of Health,

Shahid Beheshti University of Medical Sciences, Tehran, Iran

⁴ Clinical Research Development Center, Imam Khomeini Hospital,
Kermanshah University of Medical Sciences, Kermanshah, Iran

Corresponding Author : Touraj Ahmadi Jouybari, Clinical Research Development Center,
Imam Khomeini Hospital, Kermanshah University of Medical Sciences, Kermanshah, Iran.

ABSTRACT

Adequate and appropriate nutrition is a basis for physical and mental health. Considering the importance of dietary habits on health the present study was conducted with the aim of assessment of dietary habit status among urban families in Kermanshah city. This cross-sectional study was conducted among 410 women visiting health centers in Kermanshah city, the west of Iran, were randomly selected to participate voluntarily in the study. Participants filled out a self-administered questionnaire. Data were analyzed by SPSS version 21 using chi-square statistical test at 95% significant level. The mean age of respondents was 37.29 years [SD: 7.50]. We found that significant correlation between higher educational level, and good economic status with dirty habit. Based on our findings, 25.1%, 53%, and 21.9% of the respondents were unsuitable, relatively suitable, suitable dirty habit, respectively. The findings of the present study indicated which unsuitable dietary habits status were highly prevalent and it was related to educational level and economic status.

Keywords: Dietary, Women, Health Promotion, Nutrition, Life Style.

INTRODUCTION

Adequate and appropriate nutrition is a basis for physical and mental health acting for the continuation of growth and metabolism in the body. Different studies have indicated that many health problems are caused by inappropriate dietary habits (Hinckson, et al., 2013). With the continuation of globalization, Iran, like many developing countries, is experiencing nutrition transition. On the other hand, sedentary lifestyle of urban Iranians has resulted in the facilitation of nutrition transition. This means that the inclination to use fatty and processed food is increasing (Mobarakeh, et al., 2013). These habits, in

addition to being a threat for health, put the society at risk of epidemic overweight and obesity in the next two decades (Viner, et al., 2006). Deviation from a balanced diet result in the lack of nutrients and malnutrition-related diseases on one hand and is accompanied by increase of consumption of fats, different types of meat, sugar and salt which in turn result in chronic diseases on the other hand; overweight and obesity in girls result in the lowering of the age of puberty and menstruation and consequently result in physical and psychological problems (MyoungSook, et al., 2000). Many chronic diseases such as

cardiovascular diseases, stroke, diabetes, obesity and different types of cancer that result in debility and premature death are related to diet (Mobarakeh, et al., 2013). According studies the reduction of dietary diversity, increase of consumption of refined foods and saturated fats together with low level of physical activity are the main factors involved in the increase of the prevalence of chronic diseases such as diabetes and their negative effects (Viner, et al., 2006). The change of life condition including the change of dietary habits have a major role in the state of mental health in individuals in a way that it can be considered as a stressful or useful factor (Shriver, et al., 2013). Dietary habits are currently one of the basic pillars in therapeutic programs for diseases in the world in a way that sometimes the change of an inappropriate dietary habit into an appropriate habit can lead to suitable results (Yasutake, et al., 2014). For example, some scholars recommend the consumption of fruits at least twice a day and consumption of vegetables at least three times a day and some recommend a consumption of five times a day (Rose, & Richards, 2004). Also, in the study by Grøholt et al it was shown that the lack of eating breakfast was a risk factor for overweight and obesity and teenager who had overweight and obesity ate breakfast less frequently and there was also a significant relationship between eating breakfast and body mass index (Grøholt, et al., 2008). Also, regarding the relationship between dietary habits and stress management, in one of the results from the data Isfahan's healthy heart program it was found that a suitable dietary status involving the consumption of vegetables and cereals and the lack of consumption of foods containing saturated fats was seen in individuals with lower levels of stress (Roohafza, et al., 2013). Nitta *et al* pointed out a similar issue and suggested that the stress level was reduced in individuals who were willing to improve their dietary status and positive effects were clearly seen especially through the use of nutritional supplements such as vitamins and minerals (Nitta, et al., 2007). These issues how the necessity of planning and creating health promotion solutions for the improvement of

nutrition in the society. However, the prerequisite for any planning is knowledge of the current condition of the issue (Eldredge, et al., 2016; Kok, 2014; Jalilian, et al., 2016; Mirzaei-Alavijeh, 2015). On the other hand, noticing the important role of mothers to regulate family diet, provide food and affect family members to follow their nutritional behaviors (Oghli, et al., 2016). Considering the importance of dietary habits in the health of individuals in the society, the present study was conducted with the aim of assessment of dietary habit condition among urban families in the city of Kermanshah.

MATERIALS AND METHODS

This study was a cross-sectional study conducted among 410 women visiting health centers in Kermanshah city. For conducting the study, first, 8th districts of the city were considered as cluster and a health center was selected randomly from each district. Then the participants were randomly selected with probability proportional to size among the women visiting the aforementioned centers and the necessary information was collected from them. The study subjects were justified on the way the study is conducted, the confidentiality of the information and the objective of the study and all of them entered the study willingly. The data collection tool in the present study was a questionnaire consisted of two sections.

The information was collected from the participated in a self-report way. 351 (85.6 %) participants out of 410 subjects signed the consent form and voluntarily agreed to participate in the study. This study, which has been approved from Kermanshah University of medical sciences' institutional review board, and informed consent was obtained from participants (KUMS.REC.1395.279). The first section was consisted of questions related to background information and measured information such as age (years), marital status (single, married, divorced, widow), education level (illiterate, elementary, middle school, diploma, university education), having medical insurance (yes, no), and etc.

The second section was consisted of questions related to dietary habits status include investigation of amount consumption the five food groups which designed by Iran’s ministry of health and medical education, included 11 items that gave a score between 1 and 11 and the scores were categorized into three categories; a score of 9 to 11 was considered as suitable, a score between 5 and 8 was considered as relatively suitable and a score below 5 was considered as unsuitable. And all the individuals in the relatively suitable and unsuitable groups should visit a nutrition consultant.

Being a female visiting health a health center in the city of Kermanshah was considered the criteria for inclusion in the study and failure to complete the questionnaires and the lack of consent to

participate in the study were considered as the exclusion criteria. Finally, the collected information were entered into the software SPSS version 21 and analyzed using chi-square statistical test at 95% significant level.

RESULTS

The mean age of respondents was 37.29 years [SD: 7.50], ranged from 30 to 60 years. We found that significant correlation between educational level, and economic status with dirty habit. However, there was no significant difference between age, and job with dirty habit (Table 1). Based on our findings, 25.1% (88/351), 53% (186/351), and 21.9% (77/351) of the respondents were unsuitable, relatively suitable, suitable dirty habit, respectively (Diagram 1).

Table 1: Association between Background Variable and Dirty Habit

	Variable	Unsuitable n(%)	Relatively Suitable n(%)	Suitable n(%)	P
Age	30-40	70 (24.9 %)	146 (52 %)	65 (23.1 %)	0.818
	41-50	8 (22.9 %)	21 (60 %)	6 (17.1 %)	
	51-60	10 (28.6 %)	19 (54.3 %)	6 (17.1 %)	
Education al level	Primary School	14 (38.9 %)	20 (55.6 %)	2 (5.6 %)	0.003
	Secondary School	26 (27.7 %)	52 (55.3 %)	16 (17 %)	
	Diploma	19 (20.4 %)	57 (61.3 %)	17 (18.3 %)	
	Academic	29 (22.7 %)	57 (44.5 %)	42 (32.8 %)	
Economic Status	Weak	14 (29.8 %)	25 (53.2 %)	8 (17 %)	0.004
	Middle	53 (25.2 %)	119 (56.7 %)	38 (18.1 %)	
	Good	19 (27.1 %)	33 (47.1 %)	18 (25.7 %)	
	Very Good	2 (8.3 %)	9 (37.5 %)	13 (54.2 %)	
Job	Housewife	82 (26.5 %)	163 (52.8 %)	64 (20.7 %)	0.135
	Working	6 (14.3 %)	23 (54.8 %)	13 (31 %)	



Diagram 1: Diary habit status among the participants

DISCUSSION

Our finding indicated, 25.1%, 53%, and 21.9% of the respondents were unsuitable, relatively suitable, suitable dirty habit, respectively. In this regard, some study in Iran indicated about half of Iranian population had relatively suitable of diary habit (Eshghinia, 2014). These findings indicate that there is a high prevalence of unsuitable dietary habits in the Iranian society. It should be pointed out that dietary habits are a set of customs, habits and beliefs in the use of food resources in terms of cooking, storing and selecting the types of food. Therefore, many unsuitable dietary habits can be corrected by designing health promotion interventions regarding familiarity with the importance of observing appropriate dietary habits in prevention of diseases. Considering the high prevalence of unsuitable dietary habits in the Iranian society, the necessity of designing educational interventions in this regard is clear. The results indicated that the individuals with better economic status had more suitable dietary habits. In line with the present study, Eshghinia et al (2013) conducted a study on women in northern Iran and found that individuals with higher economic status had more suitable dietary habit (Eshghinia, 2014). Also, the results of different studies have reported the inverse relationship between socioeconomic status and deaths due to cardiovascular diseases and other chronic diseases, especially in developed countries (Katsarou, et al., 2010; Brennan, & Singh, 2011). In this regard it should be pointed out that individuals who are in a lower socioeconomic status have uniform dietary habits and receive nutrition from resources with less diversity and this may have a major role in the prevalence of obesity and chronic diseases that are related to diet. For example, it is seen that individuals with lower socioeconomic status consume fast food, fried food and fatty meats more frequently, compared with those in higher socioeconomic status (Konttinen, et al., 2013). The results of studies indicate that this inverse relationship is due to higher health knowledge and financial ability of people for purchasing healthy foods in high-income countries while economic factors are more

significant in low-income countries and socioeconomic condition indicates the purchasing power and access to different types of food and the healthiness of foods is not highly important (Alkerwi, et al., 2012; Panagiotakos, et al., 2008). Therefore, individuals with a higher socioeconomic status can have a better selection of healthy and nutritional foods due to having a positive attitude and a higher income (Tseng, & Fang, 2012). The role of family in selection of food based depends on different factors, one of which is its economic dimension. Therefore, it is necessary to produce healthy and nutritional products by considering the economic status of different groups in the society, in addition to educating the society regarding selection of appropriate dietary habits. Also, the findings of the presents study indicated that significant relationship between educational levels with the dietary habits status. This finding is consistent with the results of the study by Eshghinia et al (2013). They pointed out in their study that there was a significant statistical relationship of age, family size and education with dietary habits in women in northern Iran (Eshghinia, et al., 2014). Also, Schroder et al pointed out in their study that lower educational levels were accompanied with higher intake of fat and saturated fat and lower intake of vitamins (Schröder, et al., 2004). It seems that the level of education should be considered in designing educational levels and providing education for individuals with lower levels of education should be a priority.

CONCLUSION

The findings of the present study indicated that unsuitable dietary habits were highly prevalent in the group explored and they were related to economic status.

ACKNOWLEDGEMENTS

This article is a part of research project supported by research center for environmental determinants of health, Kermanshah University of medical sciences, Kermanshah, Iran. We would like to thank deputy of research of Kermanshah

University of medical sciences for financial support of this study.

REFERENCES

- Alkerwi, A. A., Donneau, A. F., Sauvageot, N., Lair, M. L., Albert, A., & Guillaume, M. (2012). Dietary, behavioural and socio-economic determinants of the metabolic syndrome among adults in Luxembourg: findings from the ORISCAV-LUX study. *Public health nutrition*, 15(05), 849-859.
- Brennan, D. S., & Singh, K. A. (2011). Grocery purchasing among older adults by chewing ability, dietary knowledge and socio-economic status. *Public health nutrition*, 14(07), 1279-1284.
- Eldredge, L. K. B., Markham, C. M., Kok, G., Ruiter, R. A., & Parcel, G. S. (2016). Planning health promotion programs: an intervention mapping approach. John Wiley & Sons.
- Eshghinia, S., Khodarahmi, M., Bartimar, R., Lashkarboluki, F., Asadi, J., Saneei, P., & Esmailzadeh, A. (2014). Socio-economic status versus dietary habits in women living in northeastern Iran. *Iranian Journal of Nutrition Sciences & Food Technology*, 9(1), 21-29.
- Hinckson, E. A., Dickinson, A., Water, T., Sands, M., & Penman, L. (2013). Physical activity, dietary habits and overall health in overweight and obese children and youth with intellectual disability or autism. *Research in developmental disabilities*, 34(4), 1170-1178.
- Grøholt, E. K., Stigum, H., & Nordhagen, R. (2008). Overweight and obesity among adolescents in Norway: cultural and socio-economic differences. *Journal of Public Health*, 30(3), 258-265.
- Jalilian, F., Joulaei, H., Mirzaei-Alavijeh, M., Samannezhad, B., Berimvandi, P., KaramiMatin, B., Mahboubi, M. (2016). Cognitive Factors related to Cigarettes Smoking among College Students: An Application of Theory of Planned Behavior. *Social Sciences*. 11(7): 1189-1193.
- Katsarou, A., Tyrovolas, S., Psaltopoulou, T., Zeimbekis, A., Tsakountakis, N., Bountziouka, V., ...&Panagiotakos, D. (2010). Socio-economic status, place of residence and dietary habits among the elderly: the Mediterranean islands study. *Public health nutrition*, 13(10), 1614-1621.
- Kok, G. (2014). A practical guide to effective behavior change: How to apply theory-and evidence-based behavior change methods in an intervention. *European Health Psychologist*, 16(5), 156-170.
- Konttinen, H., Sarlio-Lähteenkorva, S., Silventoinen, K., Männistö, S., & Haukkala, A. (2013). Socio-economic disparities in the consumption of vegetables, fruit and energy-dense foods: the role of motive priorities. *Public health nutrition*, 16(05), 873-882.
- Mirzaei-Alavijeh, M., Mahboubi, M., Jalilian, F., Aghaei, A., & Ahmadi-Jouibari, T. (2015). Factors related to self-breast examination based on health belief model among Iranian women. *Research Journal of Medical Sciences*. 9 (3), 105-108
- Mobarakeh, Z. S., Mirzaei, K., Hatmi, N., Ebrahimi, M., Dabiran, S., & Sotoudeh, G. (2013). Dietary habits contributing to breast cancer risk among Iranian women. *Asian Pacific journal of cancer prevention: APJCP*, 15(21), 9543-9547.
- MyoungSook, L., ChungJa, S., MiKyeong, C., YoonShin, L., & KyungOk, C. (2000). A comparative study on food habits and nutrient intakes among high school students with different obesity indexes residing in Seoul and Kyunggi-do. *Korean Journal of Community Nutrition*, 5(2), 141-151.
- Nitta, H., Kinoyama, M., Watanabe, A., Shirao, K., Kihara, H., & Arai, M. (2007). Effects of nutritional supplementation with antioxidant vitamins and minerals and fish oil on antioxidant status and psychosocial stress in smokers: an open trial. *Clinical and experimental medicine*, 7(4), 179-183.
- Oghli, S.S., Hidarnia, A.b, Niknami, S.a, Mohammadi, S.S., Jouybari, T.b, Aghaei, A. (2016). Adolescent girls eating behaviors about calcium-rich foods. *International Journal of Tropical Medicine*. 11(3), 61-66

16. Panagiotakos, D. B., Pitsavos, C., Chrysoshoou, C., Vlismas, K., Skoumas, Y., Palliou, K., & Stefanadis, C. (2008). Dietary habits mediate the relationship between socio-economic status and CVD factors among healthy adults: the ATTICA study. *Public health nutrition*, 11(12), 1342-1349.
17. Roohafza, H., Sarrafzadegan, N., Sadeghi, M., & Rafeian-Kopaei, M. (2013). The association between stress levels and food consumption among Iranian population. *Archives of Iranian medicine*, 16(3), 145.
18. Rose, D., & Richards, R. (2004). Food store access and household fruit and vegetable use among participants in the US Food Stamp Program. *Public health nutrition*, 7(08), 1081-1088.
19. Shriver, L. H., Betts, N. M., & Wollenberg, G. (2013). Dietary intakes and eating habits of college athletes: are female college athletes following the current sports nutrition standards?. *Journal of American College Health*, 61(1), 10-16.
20. Schröder, H., Rohlf, I., Schmelz, E. M., Marrugat, J., & REGICOR investigators. (2004). Relationship of socioeconomic status with cardiovascular risk factors and lifestyle in a Mediterranean population. *European journal of nutrition*, 43(2), 77-85.
21. Tseng, M., & Fang, C. Y. (2012). Socio-economic position and lower dietary moderation among Chinese immigrant women in the USA. *Public health nutrition*, 15(03), 415-423.
22. Viner, R. M., Haines, M. M., Taylor, S. J. C., Head, J., Booy, R., & Stansfeld, S. (2006). Body mass, weight control behaviours, weight perception and emotional wellbeing in a multiethnic sample of early adolescents. *International journal of obesity*, 30(10), 1514-1521.
23. Yasutake, K., Kohjima, M., Kotoh, K., Nakashima, M., Nakamura, M., & Enjoji, M. (2014). Dietary habits and behaviors associated with nonalcoholic fatty liver disease. *World Journal of Gastroenterology: WJG*, 20(7), 1756.