THE RELATIONSHIP BETWEEN BEHAVIORAL - NUTRITIONAL PREFERENCES WITH QUALITY OF LIFE IN ISLAMIC AZAD UNIVERSITY STUDENTS OF KHORASGAN (ISFAHAN)

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Abstract

Modifying consumption patterns is something universal, behavioral and social and to achieve the correct patterns of consumption we should be targeted and we should move toward with the proper look towards the future. The purpose of this study was to investigate the relation between behavioral-nutritional preferences with quality of life in the undergraduate students of the Islamic Azad University of Khorasgan. In this correlation study, 310 students in the fields of law, physical education, psychology and the food industry were selected by available sampling method. They completed a researcher-made Behavioral - Nutritional Preferences questionnaire (World Health organization's Quality of Life Questionnaire). In order to analyze the data, Pearson correlation and multiple regression analysis method was used in the stepwise manner. Results indicated that there are significant correlations between psychological health with low protein, fuzzy drinks, fatty pattern preference ($P<0.01$). Also there are significant correlations between psychological health with Iranian traditional dietary preferences ($P<0.01$). Regression analysis ($p<0.05$) hasn't been valid for predicting the preference for salty snack food pattern, Asian food pattern, sugary snack food pattern, Western food pattern through life quality and its dimensions.

Keywords: Behavioral - Nutritional preferences, dietary patterns, quality of life

Introduction

One of the areas that people need in their lives is health services and a model that represents a moderation in the use of its interests is one of the national necessities. In today's world, the use of the product and its use in social processes needs standardized and objective methods called standardized instructions. One of these methods can be modifying the correct patterns of consumption. Modifying consumption patterns is something universal, behavioral and social and to achieve the correct patterns of consumption we should be targeted, and we should move toward with the proper look towards the future. In

the healthcare sector, with methods and patterns that exist in the world and with successful experiences in developing national standards of therapies, this way will be smoother, more convenience and more feasible (Kebriaieezade,2010). To achieve this goal, enjoying quality of life measures and its dimensions provides some appropriate models for improving patients' physical, social and psychosocial functions, and it is a mean for reviewing and improving treatment methods and with different therapeutic approaches, and lifestyle modification, it is the best practice that should be done to elevate people to their maximum performance and to prevent complications, also removing or modifying modern habits such as smoking, chronic stress, and obesity, which increase the risk of chronic diseases changes lifestyle and improves the performance of people in society (Abed Saiedi, 2008). Epidemiological evidence suggests that lifestyle changes in recent years has been largely responsible for the increased incidence of diseases such as cancer, heart - cardiovascular diseases, osteoporosis, high blood pressure and obesity that some of these changes are changes in eating habits. Identifying and assessing the usual diet of adolescents and young people is the first step in the process of improving nutritional status. In recent years in order to assess the total diet of a particular society, the use of dietary patterns is recommended, in this method feeding data are summarized and a general picture of the whole diet and complex dietary habits are provided. This approach includes potentially synergistic or antagonistic effects of nutrients that can have an impact on human health (Newby & Tucker, 2004). For example, it has been shown in a research on dietary patterns of Australian adolescents that the food pattern of fruits, salads, cereals and fish has an inverse relationship with diastolic blood pressure. Dietary pattern is different based on age, gender, ethnicity and culture. (Lin, Bermudez & Tucker, 2003. Mishra, Ball, Arbuckle & Crawford, 2002) While, more research has been done on dietary patterns in other societies, and less research has been done on dietary pattern in Iran (Pryer, Cook & Shetty, 2001, McNaughton, Mishra, Stephen & Wadsworth, 2007, McNaughton, Ball & Mishra, 2008). Several researches in the world have studied food pattern changes in Mediterranean countries, Latin America and the Union of Europe over the years. The results of this study show that in recent decades, food habits and food availability in the country has changed with a similar pattern of increased intake of sugars, fats, animal products and reducing consumption of and plant products (Bermudez & Tucker, 2003, Noah & Truswell, 2003, Mazzocchi, Brasili & Sandri, 2008). Due to low awareness regarding the correct nutritional patterns and quality of the students' life, we decided to study the relationship between Nutritional - behavioral preferences with quality of life in college students. This research results not only are valuable and useful for students, but also they can be rendered to authorities and planners, to improve nutrition pattern of students in different aspects with the necessary interventions to improve quality of life.

Materials and Methods

Regarding the aim of this research that has been determining the relationship between behavioral-nutritional preferences with quality of life among Azad university students of Khorasgan, correlation method was used. Statistical population of this research has been all undergraduate students of food industry, physical education, law and psychology from

Islamic Azad University of Khorasgan in spring of 2013 according to university information. Their total number is 1,600. To select the required sample size, krejsi and Morgan table has been used, and it has 310 people. The questionnaires were distributed to students by available sampling method. In order to analyze the data, Pearson correlation and multiple regression analysis method was used in the stepwise manner. Tools used in this study were:

1- Behavioral - nutritional preference's questionnaire: Alizade et.al, (2010) identified dietary patterns in adolescent girls in their study, thereby the researcher designed a Behavioral - nutritional preference's questionnaire. Accordingly, utilizing six major dietary patterns (Western dietary pattern, sugary snacks food pattern, Asian food pattern, salty snack food pattern, fatty, fuzzy drink and low protein pattern, Iranian traditional food pattern) a 40 questioned questionnaire was prepared with 5 item Likert scale and a grading, including Always: 4 often: 3 sometimes: 2 rarely: 1 never: 0. To evaluate the reliability and validity, the questionnaire was distributed among 40 students from Khorasgan university. And then using statistical software spss18 the questionnaires were analyzed, finally, its alpha coefficient was 0.64, and its coefficient was 0.56. It should be noted that if the applied sampling is selected randomly sampling, so the alpha coefficient of the questionnaire will be higher.

2- The World Health Organization Quality of Life questionnaire of 26 questions: this is the short form of The World Health Organization Quality of Life Questionnaire containing 26 questions on physical dimensions (questions 3, 4, 10, 15, 16, 17 and 18), mental health (Questions 5, 6, 7, 11, 19 and 26), social relationships (questions 20, 21 and 22) and social environment (questions 8, 9, 12, 13, 14, 23, 24 and 25) and an overall assessment of life (questions 1 and 2). (WHO, 1994). The questions are graded on a Likert scale and 5 options for each question with one score: at all, much less: 2, 3: in medium, large :4, 5: too much, of course, question # 3, 4 and 26 are of the negative Grading; minimum score for this scale is 26, and a maximum score is 130 (Kajbaf. et al, 2012). In 1996, the reliability and validity of the questionnaire were carried out in different countries and cultures by the World Health Organization. Rahimi (2004) estimated reliability coefficient of the test 0.86 and Gholami Krdabady (2004) obtained alpha Coefficient 0.90. The coefficient of test internal consistency, though the correlation of each item with its own dimension, is the physical dimension of 0.83, mental health 0.83 and alpha coefficient is reported between 0.73 to 0.89 for the total scale (Nassiri and Razavieh, 2007).

Results

Results of demographic characteristics of samples showed that from the total of 312 students, frequency of girl students was 52.2 percent (163 people), and frequency of boy students was 47.8 percent (149 people), that majority of them were single (77.9 percent), and all had BA degree. Among a group of Psychology (32.4 percent), law (39.7 percent), physical education (11.9%) and food science (16%) were selected. In the study sample, the mean of the quality of life (95.0032) and its components are:

physical health (3/7180), mental health (3/5503), social relationships (3/5000), social environment (3 / 7082) and life measuring (3/7179) respectively.

In the study sample, the average related to preferences of the Western dietary pattern is (2/3731), a sweet snack food pattern (2/1290), the Asian food pattern (2/1506), salty snack food pattern (2/0879), low protein food pattern(2/3729) and the pattern of Persian food (2/0010).

To assess the association between research variables, Pearson's correlation coefficient was used. The correlation result between quality of life and behavioral – nutritional preferences is presented in Table 1. The results presented in this table show that there is a significant relationship between psychological health with preference of low protein, fatty food and fuzzy drink. The shared variance of the mentioned dimensions with preference of low protein, fatty food and fuzzy drink is 1.5 percent. Also there is a significant relationship between Psychological healths with the preference of pattern of Persian food. The shared variance of the mentioned dimensions with preference of traditional Iranian food pattern is 2/2 per cent.

Table 1: Correlation between quality of life and behavioral-nutritional preferences

Persian traditional food pattern	Low protein food pattern	salty snacks dietary pattern	Asian food pattern	sugary snacks dietary pattern	Western food pattern		
0.035	0	-0.093	0.006	0.01	-0.022	**Correlation coefficient**	Physical health
0.267	0.499	0.051	0.456	0.43	0.352	**significance**	
.151**	.125*	-0.059	0.055	0.093	0.014	**Correlation coefficient**	Psychological health
0.004	0.014	0.149	0.167	0.051	0.401	**significance**	
0.021	0.079	0.045	0.011	-0.059	-0.007	**Correlation coefficient**	Social relations
0.356	0.082	0.213	0.425	0.149	0.451	**significance**	
-0.036	0.009	-0.031	0	0.021	0.018	**Correlation coefficient**	Social environment
0.26	0.44	0.295	0.499	0.356	0.373	**significance**	
0.078	0.053	-0.017	-0.01	-0.003	0.019	**Correlation coefficient**	Life measuring
0.086	0.176	0.381	0.431	0.482	0.371	**significance**	
0.054	0.059	-0.052	0.019	0.028	0.005	**Correlation coefficient**	Quality of life
0.171	0.149	0.179	0.369	0.312	0.466	**significance**	

To study how much of the variance in students' quality of life is explained by aspects of their personality, Stepwise regression method has been used. The results are presented in Table 2. The results presented in this table show that among all the dimensions, the traditional Iranian food pattern can predict significantly the psychological health.

Table 2: Multiple coefficients of correlation between quality of life and its dimensions and traditional Iranian food pattern with variance regression analysis

Standard error of estimate	Modified Squared multiple correlation coefficient	Squared multiple correlation coefficient	Multiple correlation coefficient	significance	F coefficient	Statistical indicators pattern	row
.60155	.025	.040	.201[a]	.027[a]	2.564	Simultaneous	1

As seen in Table (2) it is observed that regression analysis ($p<0.05$ and $F=2.564$) has validity required for the prediction of the preference of traditional Iranian food patterns through quality of life and its dimension. In other words, at least one of the predictor variables (dimension and quality of life) has 3 percent predictive powers of preference of traditional Iranian food pattern.

Discussion

According to research results, it was shown that there is a significant relationship between psychological health with low protein food patterns. Also there is a significant relationship between psychological health with preference of Iranian traditional food pattern that is consistent with Henri Koez' research (2012) who showed there is a relationship between all dimensions of quality of life and adherence to the Mediterranean diet also it is consistent with Wiligas et.al research (2011), that showed there is a relationship between all dimensions of quality of life and adherence to the Mediterranean diet and sterling-Gliveri (2011) also confirms it. This finding can be justified theoretically so that students are exposed to a great amount of stress because of certain age and social status. Various stresses with the negative impact on one's personal and social coping resources reduce the person resistance and in long term, it will have undesirable effects on mental and physical health of students, and eventually it will lead to the low quality of life, and they cannot play their roles (Peeters et.al, 2008). So choosing a healthy eating pattern can reduce the unpleasant effects and will lead to students' high quality of life. Kuirek et.al (2013) showed the relation between traditional dietary pattern and depression and also Piner et.al (2011) confirmed it. Soltani et.al study (2011) showed that 4 percent of the students have a highly desirable quality of life. Arash (2011) also showed that having no proper pattern of nutrition may put people at risk of mental health problems and social issues.

The results showed that no dimension of life quality can predict significantly preference of Western dietary pattern, sugary snacks food, Asian food pattern, salty snack's food pattern, low-protein diet pattern. Among all dimensions, just Iranian traditional food pattern significantly has been able to predict psychological health. It can be explaining that quality of life is an extensive content and is intertwined and interrelated to physical health, psychological state; social relations and environmental factors are intertwined complexly. On the other hand, Iranian traditional dietary pattern showing Iranian food pattern with a high amount of local and hydrogenated oils, broth, tea, chicken and red meat, can be used in predicting psychological health that is one of the dimensions of life quality.

Conclusion

There is a significant relationship between psychological health and preference of low protein dietary, fuzzy drink, oil. Considering that in low protein dietary, fuzzy drink and oil consumption of protein is less and consumption of non-hydrogenated fats is more than other patterns and youth following this pattern are interested in using drinks like dug, and in its relationship with psychological health it seems that choosing a healthy dietary pattern can be effective in improving the quality of life for people, and it can enhance their quality of life. Also there is a significant relationship between psychological health and preference of Iranian traditional dietary pattern and just this pattern has been able to predict psychological health significantly. This show that Iranian traditional dietary pattern with a high amount of local and hydrogenated oils, broth, tea, chicken and red meat, can be used in predicting psychological health that is one of the dimensions of life quality. So according to the obtained results from the study we can take a very important step in modifying the dietary patterns and dietary recommendations and nutritional counseling of students. In generalizing these findings to other students and universities, we should be cautious, and it is recommended that a similar research is done for other universities and other levels to compare its results with other research results to take a proper decision for research results.

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References

Abed saidy J.2007. Translating concepts in biophysical, psychosocial, 2008, Bruner and Svdars, Tehran, print salemy. [In Persian]

Alizade M, Mohtadi nia J, Ghasem gar gary B, Esmaihzade A.2009. Identify the dominant patterns in adolescent girls. Medical Journal of Tabriz University of Medical Sciences 31 (3), 69-63 [In Persian]

Arash M. 2010. The role of consumption habits on health and quality of life. First National Conference on Student factors affecting health. Tehran, 21-22. [In Persian]

Bermudez OI, Tucker KL.2003. Trend in dietary patterns of Latin American populations.Cad Saude Publica;19 Supple 1: s 87-99.

Gholame kordi M.2003. Quality of life in patients with insulin-dependent diabetes (type 1) and non Dabsth insulin (type 2) in Isfahan General psychology master's thesis, Faculty of Education, University of Khorasgan Branch. [In Persian]

Henriquez P, Ruano C, Deirila J, Ruiz-Canela M, Martinez-Gonzaiez MA, Sanchez-villigas A.2012. Adherence to the mediterranean diet and quality of life in the sun project.European Jornal of Clinical Nutrition.66: 360-368.

Kajbaf M, Aghae A, Mahmodi A.2011. Effect of training on quality of life, happiness couples counseling centers in Isfahan. Journal of Family Research.25 (7) [In Persian]

Kebriae zade A.2009. National reform usage pattern of a human necessity, Tehran: White weeklies. [In Persian]

Lin H, Bermudez OI, Tucker KL.2003. Dietary patterns of Hispanic elder are associated with acculturation and obesity. J Nutr; 133: 3651-7.

Mazzocchi M, Brasili C, Sandri E.2008. Trends in dietary patterns and compliance with world Health Organization recommendations: a cross-country analysis. Public Health Nutr; 11(5):535-40.

McNaughton S, Ball K, Mishra G.2008. Dietary patterns of adolescents and risk of obesity and hypertension J Nutr; 138:364-70.

McNaughton SA, Mishra GD, Stephen AM, Wadsworth ME.2007, Dietary patterns throughout adult life is associated with body mass index, waist circumference, blood pressure, and red cell folate. J Nutr; 137:99-105.

Mishra G, Ball K, Arbuckle J, Crawford D. 2002.Dietary patterns of Australian adults and their association with socioeconomic status: result from the 1995 National Nutrition Survey. Eur J Clin Nutr; 56: 687-93.

Nasire H, Razavie A.2006. Quality of life in Shiraz University, according to the World Health Organization Quality of Life Scale. Proceedings of the Third Seminar on student mental health 3 and 4 June [In Persian]

Newby PK, Tucker KL.2004. Empirical derived eating patterns using factor or cluster analysis: a review.Nutr Rev; 62: 177-203.

Noah A, Trauswell S.2003. Commodities consumed in Italy, Greece and other Mediterranean countries compared with Australia in 1960s and 1990s. Asia Pac J Clin Nutr; 12(1): 23-9.

Peeters,Y. ,Boersma,S. , & Koopman,H. 2008. Predictors of quality of life: A quanantitative investigation of the stress-coping model in children with asthma. Journal of Health Quality Life Outcomes, 6, 6-24.

Piner G. Colark M,Okasus E.2011.Preznenstrual syndrome in Turkish college students and its effects on life quality. Sexual & Reproductive Health care, volume2:21-27.

Pryer JA, Cook A, Shetty P.2001. Identification of groups who report similar patterns of diet among a representative national sample of British adults aged 65 years of age or more. Public Health Nutr; 4: 787-95.

Quirk S, Williams L.et al. 2013.The association between diet quality, dietary patterns and depression in adults.BMC psychiatry, 13:175

Rahime Z.2003. Comparison of quality of life in patients with previous stroke rehabilitation and post rehabilitation Thesis MS in General Psychology. School of Education, Islamic Azad University of Khorasgan Isfahan [In Persian]

Soltani R, Mohamadian sherbaf H, Kafy M, Salehy A.2010. Factors influencing health status and quality of life Gilan University. First National Conference on Student factors affecting health. Tehran, 21-22. [In Persian]

Sterling-Guillory T.2011.The influence of dietary patterns, physical activity, and self-perception on health-related quality of life in overweight and normal weight African American adolescent females, ProQuest Dissertations and Theses, Academic research

Villegas AS, Ruano C, Henriquez P,De la fuente C, Martinez-Gonalez MA .2011. Health related quality of life associated with major dietary patterns in TUE SUN project. J Epidemiol Community Health; 65: A208 doi:10.1136/jech.2011.142976g.

World Health Organization .1995. Phisical status: The use and interpretation of anthropometry.Geneva, Switzerland: World Health Organization.WHO Technical Report Series No.854.