

The relation of spiritual aspect of nutrition and health

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Abstract

Background: There has been a particular attention toward physical health for centuries. However, there are other aspects for health. Now, it is the time to focus on the other aspects of human health; for example, psychological, social, and especially spiritual health. The spiritual health has the key role in improving the mental function. Spiritual well-being, such as halal, haram, and the purity of food should also be considered. The aim of the present study was to evaluate the spiritual perception of Shahid Beheshti university staff's regarding nutrition.

Methods: A cross-sectional study was conducted among Shahid Beheshti university staff. Participants were chosen by convenience sampling. Inclusion criteria were working at Shahid Beheshti University of Medical.

Results: Totally 128 personnel participated in this study. The positive correlations were observed between the education and total scores of nutrition aspects ($r=0.049$, $P<0.05$) and attention to physical aspect of nutrition for males ($r=0.052$, $P<0.05$). Indeed, there was a significant correlation between attention to mental aspect of nutrition and social aspect of nutrition ($r=0.740$, $P<0.01$).

Conclusion: It was ultimately attained that, age, sex, and education could be the factors that affect the nutritional attitude. Therefore, it is essential to consider the factors that could improve the nutritional techniques in the society.

Keywords: Attention; Cross-Sectional Studies; Nutritional Status; Perception

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Introduction

There has been a special attention toward physical health for centuries; as a result, a dramatic improvement has occurred for identifying the physiopathological causes of diseases which assisted clinicians significantly for diagnosis and treatment of physical ailments.

However, particular attention for human health has been spent on psychological, social, and specifically spiritual health in the past decade (1).

The principal aspect of human health is spiritual health that is the prominent part of having a healthy life. In addition, along with other aspects it could promote public health (2).

The spirituals aspect of health, is the main coordinator for improving mental health (3, 4). Recently, it was shown that spirituality has an important role for preventing and managing physical and psychological diseases (5).

Apparently, lifestyle (healthy or unhealthy) plays the main role for each individual health (6). Health-promoting lifestyle has 6 dimensions including: health responsibility, spiritual growth, physical activity, interpersonal relations, nutrition, and stress management (7). Nutrition has been defined as the intake of food, considering the association to the body's dietary needs (8). In Islamic teachings, a healthy nutrition encompasses the whole physical, spiritual, mental, and social health (9).

The physical aspect of nutrition relates to the biochemical issues, such as consumption of protein, fats, carbohydrates, vitamins, salts, fiber, etc. Their role in physical health and illness, nutrition, and social aspects of health are essential. The food labels assist people to choose right foods which are beneficial for their health. Nutrition and mental health aspect deal to mental aspects of nutritional issues for instance: what to eat, how to eat, and in what conditions consume food. In the spiritual aspect, which has a great importance, spiritual well-being issues, such as halal and haram and food purity should be considered (4).

From philosophers' point of view, many factors including historical background, culture, social status, and religion affect attitudes towards food consumption (10). The indexes of an immune diet include: spiritual attitude towards food, adherence to nutrition customs, pureness of food, adherence to halal food and avoiding haram foods (11).

Many studies have focused on spiritual health and how it relates to an individual's characteristics (12, 13). According to the studies which were performed in Iran, it was shown an undesirable and inadequate awareness among specific demographic

groups in the society regarding the nutrition and the poor function of families about proper diet (14, 15). It has also been shown that educating people and increasing their awareness has an important role in improving nutritional status and the spiritual growth (16-18). Few researches have studied the nutritional aspects of food and the effect of spiritual aspect of nutrition on health. Thus, this research was performed to study the perception of Shahid Beheshti University staff regarding considering spirituality toward nutrition and the effect of focusing on halal and haram in the health aspects. Therefore, the results could be used to improve families' health and increase spiritual and nutritional awareness.

Methods

This cross-sectional descriptive study was conducted in 2016 among employees of Shahid Beheshti University of Medical Sciences. It took a month to collect data and no follow up was done. Participants were chosen by convenience sampling. The research group consisted of all staff in the university that were provided by the questionnaire; however, a total of 128 individuals were returned in their convenience. The study size was defined by an expert. Inclusion criteria were working at Shahid Beheshti University of Medical Sciences. The informed consent was obtained from the participants and they were informed regarding the questions. The participants were made sure that their information would kept private.

In this study a questionnaire was designed from the book "Concepts of Fitness and Wellness a comprehensive lifestyle approach" (19). The Reliability and Validity was checked by three experts in the Health and Community Medicine Department of Shahid Beheshti University of Medical Sciences and their evaluations were applied. Additionally, to check the reliability, the questionnaire was provided to 20 individuals who participated in the study. In order to check the validation,

we used: internal consistency by using test-retest reliability and Cronbach's alpha correlation coefficient. Cronbach's alpha value was also calculated in this study and was 0.613 and Pearson's r was 0.80. Eventually, after correcting some ambiguities, the questionnaire was approved.

The questionnaire was designed in two parts: Demographic characteristics asking for: gender, age, and the level of education. Multiple choice questions including:

- A. Questions regarding the intensity of the staffs' attention to nutrition aspects including: Attention to Physical Aspects of Nutrition (APAN), Mental (AMAN), Social (ASAN), Spiritual (ASpAN) that were scored on a 5 points scale (very much= 4, much= 3, low=2, very low=1, without effect=0). With due attention to 20 point attainable in this section, we categorized them into three groups (0-5) had low attention, (6-14) was defined as moderate and (15-20) was the high attention group.
- B. Yes/no questions were used to assess the attitude regarding the effect of spiritual dimension of nutrition on health dimensions including: Physical Health (ESAPH), Mental (ESAMH), Social (ESASH), and Spiritual (ESASpH).

The statistical analysis was performed by SPSS15. Statistical indicators and dispersion (mean and standard deviation)

and multiple statistical tests (Pearson) were used. Also the significance level was set at 0.05.

Results

In this study, 128 personnel participated. 90 (70.3%) were female with mean (SD) age of 40.38 (8.46) and 38 (29.6%) male with mean (SD) age of 38.1 (9.15). According to the education, personnel were categorized in four groups: 1) diploma and lower 29 (22.66%) 2) associate's degree 17 (13.28%) 3) bachelor's degree 43 (33.59%) 4) master's degree 39 (30.47%).

The mean score of the question "are regarding the different aspects of health involved in nutrition?" was 3.5 from 4 (very much=4, much= 3, low=2, very low= 1, without effect=0). 755 (8.6%) answered "very much", 43 (33.6%) "much", 43 (0.8%) "low", 9 (7%) "very low and no one answered "without effect".

Evaluating the intensity of the staffs' attention to the nutrition aspects, it was indicated that 60.2% of the participants were in the high attention group and 39.8% had moderate care and no low attention person was observed. As shown in Table 1, only in the male bachelor's degree group, the percentage of moderate attention class was more than high attention class.

As shown in Table 2, from the staffs point of view, the spiritual aspect of nutrition had the most effect on spiritual health and the least on physical aspect. On average, 90.23% believed that using haram foods have negative effects on the health.

Table 1. Attention to different dimensions of nutrition

Education	Gender	High attention	Moderate attention
		N (%)	N (%)
Diploma and lower	Female	13 (10.16)	10 (7.81)
	Male	4 (3.12)	2 (1.56)
Associate's degree	Female	6 (4.69)	5 (3.91)
	Male	4 (3.12)	2 (1.56)
Bachelor's degree	Female	18 (14.06)	14 (10.94)
	Male	5 (3.91)	6 (4.69)
Master's degree	Female	17 (13.28)	7 (5.47)
	Male	10 (7.81)	5 (3.91)

Table 2. Effect of paying attention to spiritual dimension of nutrition on health

Item	Question	Yes	No
		N (%)	N (%)
Q1	Dose using haram foods have negative effect on physical aspect of health?	105 (82)	23 (18)
Q2	Dose using haram foods have negative effect on mental aspect of health?	121 (94.5)	7 (5.5)
Q3	Dose using haram foods have negative effect on social aspect of health?	114 (89.1)	14 (10.9)
Q4	Dose using haram foods have negative effect on spiritual aspect of health?	122 (95.3)	6 (4.7)

Table 3. Mean (SD) for spiritual effect of food on health dimensions

Item	female	Male
	Mean (SD)	Mean (SD)
Effect of haram food on physical aspect of health	0.88 (0.33)	0.68 (0.47)
Effect of haram food on mental aspect of health	0.95 (0.21)	0.92 (0.27)
Effect of haram food on social aspect of health	0.90 (0.30)	0.87 (0.34)
Effect of haram food on spiritual aspect of health	0.97 (0.18)	0.92 (0.27)

Table 4. Means (SD) of age, perception of the effect of spiritual aspect of nutrition on health aspects and total score of paying attention to nutrition's of the participants

	Females	Males	Total
	Mean (SD)	Mean (SD)	Mean (SD)
APAN	2.92 (0.72)	2.84 (0.71)	2.89 (0.71)
AMAN	2.75 (0.79)	2.81 (0.92)	2.77 (0.83)
ASAN	2.64 (0.83)	2.60 (0.91)	2.63 (0.85)
ASpAN	2.84 (0.99)	2.84 (0.91)	2.84 (0.96)
Total score of nutrition aspects' perception	11.16 (2.72)	11.10 (2.94)	11.14 (2.78)
ESAPH	0.87 (0.32)	0.68 (0.47)	0.82 (0.38)
ESAMH	0.95 (0.20)	0.92 (0.27)	0.94 (0.22)
ESASH	0.90 (0.30)	0.86 (0.34)	0.89 (0.31)
ESASpH	0.96 (0.18)	0.92 (0.27)	0.95 (0.21)
Age	40.20 (8.46)	38.11 (9.15)	39.63 (8.69)

APAN: Attention to Physical Aspects of Nutrition, AMAN: Attention to Mental Aspects of Nutrition, ASAN: Attention to Social Aspects of Nutrition, ASpAN: Attention to Spiritual Aspects of Nutrition

ESAPH: Effect of Spiritual Aspect of Nutrition on Physical Health, ESAMH: Effect of Spiritual Aspect of Nutrition on Mental Health, ESASH: Effect of Spiritual Aspect of Nutrition on Social Health, ESASpH: Effect of Spiritual Aspect of Nutrition on Spiritual Health.

Range of the score for perception regarding the effect of haram foods for health was from 0.88 to 0.97 in male (Out of 1). The point of view for using haram foods had the most effect on spiritual aspect of health (mean=0.97, SD=0.18) and the least on physical activities (mean=0.88, SD=0.33).

The range of perception regarding the effect of haram foods on health was from 0.68 to 0.92 in female (Out of 1). The point of view in female staff regarding the, usage of haram foods had the most effect on spiritual and mental aspect in health

(mean=0.92, SD=0.27) and the least on physical (mean=0.68, SD=0.47). There was no significant difference between female and male participants (Table 3).

Means (SD) of age, perception of the effect of spiritual aspect of nutrition on health aspects and total score of paying attention to nutrition's of the participants are presented in Table 4. The mean (SD) nutritional perception for the total score was 11.14 (2.78). The mean (SD) values for ASpAN and ESASpH were 2.84 (0.96) and 0.95 (0.21), respectively. For age the mean (SD) value was 39.63 (8.69).

According to Table 5, positive correlations were observed between education and total scores of nutrition perception ($r=0.049$, $P<0.05$) and APAN for males ($r =0.052$, $P<0.05$). A negative pattern was found between ASpAN and education in female ($r=-0.001$, $P<0.05$). In addition, the significant correlation was not remarkable between education and ESASpH in the statistical analysis for females.

According to Table 6 there was a significant correlation between AMAN and ASAN ($r=0.740$, $P<0.01$). Individuals who replied that using haram food has important role in mental aspect of health, also thought that it is critical to maintain spiritual aspect of health ($r=0.922$, $P<0.01$). There was a positive relation between the total score of nutrition's attention and ESASpH ($r=0.252$, $P<0.01$).

Discussion

According to the findings, there was a desirable awareness of spiritual nutrition and also a satisfactory assiduity with nutrition aspects. Similarly, according to findings of a study conducted by Motlagh et al. the highest score for lifestyle was for spirituality (20). In Rahmati et al. study, 61.4% of employees had good spiritual health (21).

Table 5. Correlation between age, education and effect of spiritual nutrition attention on health aspects questionnaire and total score of nutrition's aspects attention, in males, females and the total

	Education		
	Females	Males	Total
APAN	0.184	0.052*	0.139
AMAN	0.036	-0.094	-0.001
ASAN	-0.032	-0.193	-0.083
ASpAN	-0.001*	-0.174	-0.048
ESAPH	0.089	0.003	0.028
ESAMH	0.073	-0.111	0.001
ESASH	0.089	0.115	0.090
ESASpH	0.104*	-0.111	0.010
Total score of nutrition's aspects	0.049*	-0.131	-0.007

APAN: Attention to Physical Aspects of Nutrition, AMAN: Attention to Mental Aspects of Nutrition, ASAN: Attention to Social Aspects of Nutrition, ASpAN: Attention to Spiritual Aspects of Nutrition

ESAPH: Effect of Spiritual Aspect of Nutrition on Physical Health, ESAMH: Effect of Spiritual Aspect of Nutrition on Mental Health, ESASH: Effect of Spiritual Aspect of Nutrition on Social Health, ESASpH: Effect of Spiritual Aspect of Nutrition on Spiritual Health.

** $P<0.01$; * $P<0.05$; r: Pearson's rank correlation coefficients

Table 6. Correlation between different aspects of health questionnaire and total score of nutrition's aspects in the total sample.

	APAN	AMAN	ASAN	ASpAN	ESAPH	ESAMH	ESASH	ESASpH	Total score of nutrition's aspects
APAN	1.000	0.578**	0.538**	0.430**	-0.038	0.158	0.125	0.175*	0.748**
AMAN	0.578**	1.000	0.740**	0.541**	0.019	0.182*	0.025	0.162	0.866*
ASAN	0.538**	0.740**	1.000	0.575**	0.037	0.338**	0.054	0.337**	0.870**
ASpAN	0.430**	0.541**	0.575**	1.000	0.072	0.139	0.229**	0.156	0.799**
ESAPH	-0.038	0.019	0.037	0.072	1.000	0.424**	0.553**	0.378**	0.032
ESAMH	0.158	0.182*	0.338**	0.139	0.424**	1.000	0.466**	0.922**	0.249**
ESASH	0.125	0.025	0.054	0.229**	0.553**	0.466**	1.000	0.514**	0.136
ESASpH	0.175*	0.162	0.337**	0.156	0.378**	0.922**	0.514**	1.000	0.252**
Total score of nutrition's aspects	0.748**	0.866*	0.870**	0.799**	0.032	0.249**	0.136	0.252**	1.000

APAN: Attention to Physical Aspects of Nutrition, AMAN: Attention to Mental Aspects of Nutrition, ASAN: Attention to Social Aspects of Nutrition, ASpAN: Attention to Spiritual Aspects of Nutrition, ESAPH: Effect of Spiritual Aspect of Nutrition on Physical Health, ESAMH: Effect of Spiritual Aspect of Nutrition on Mental Health, ESASH: Effect of Spiritual Aspect of Nutrition on Social Health, ESASpH: Effect of Spiritual Aspect of Nutrition on Spiritual Health.

** $P < 0.01$; * $P < 0.05$; r: Pearson's rank correlation coefficients

In our study, it was estimated that 90.22% believed that using haram foods have negative effect on the health. Thus, in different studies, the effect of food on health has been considered. Based on the findings of Ismaili et al., there are instructions regarding eating and drinking in Islamic texts in order to achieve physical, psychosocial, and spiritual health (22).

Based on Quran, Other than physical effect, food and nutrition have spiritual implications in the field of human morality and education (23). Believing that nutrition should be halal has a great impact on all aspects of lifestyle (24).

Mental and spiritual aspects of human have been considered in the Islamic perspective even more than physical health. In this philosophy, people not only eat or drink for pleasure, but they also for maintaining a good life inculcated with moral behavior and spiritual satisfaction (25). The unclean and forbidden food, in the first stage influence a person's soul through the body, and the soul loses its vitality and spirituality. The dangerous effects on physical health are clear to practitioners; nonetheless, the psychological effects are more dangerous than physical and social

ones. From historical and traditional sources and the Islamic texts, it was concluded that eating forbidden food is not only from the spiritual point of view, but also leads to a number of individual and social health problems from physical point of view (26).

In Larouche et al. investigation on 151 students, it was attained that female students had significantly better behavior than male in the nutrition and health-promoting lifestyle (27). Additionally, in Steptoe et al. study, which examined the pattern of smoking, nutrition, physical activity, and attitudes towards health in college students in 13 European countries, it was observed that female had healthier nutrition than male (28); although, in our research the results were in contrary because our P value was over than 0.05.

The population awareness is in correlation with their educational status (29), similar to this research, our investigation also found a correlation between education and attention to spiritual aspect of nutrition among females. However, Highfield et al. study found no significant association between education and spiritual health (30).

Furthermore, in Mozafarinia et al., there was no significant relation between spiritual health and the level of education (31). The reasons for this disagreement may be cultural, measurement or sample size differences.

Nutritional awareness is not the only factor that could affect a person's nutritional practice. Physiological demands, impression of oneself, food access, media, and specially food preferences and the peer group are the main factors that influence people's nutritional performance (32).

Contrary to the growing evidence supporting a relation between spirituality and health, the detailed mechanisms through which spirituality influences health is not sufficiently understood and more research are needed (33, 34).

Spirituality has shown neuroanatomical and neurochemical changes (35). In fact, psychological and physiological facts have been reported. For instance, a direct physiologic pathway for spirituality is its potential to attenuate the sympathetic nervous system (yielding a higher cardiac autonomic regulation), promote parasympathetic activation leading to decrease in blood pressure. Additionally, it could decrease inflammatory cytokines and circulating cortisol levels; furthermore, it may lead to the less risks for a range of health outcomes (36, 37).

The findings of this study has some limitations. Primarily, it was a cross-sectional study and had no conclusions about the causality of the findings. Secondly, the study was conducted with a limited sample size of staffs; thus, to generalize the result for the entire population would not be possible. Eventually, since there was not enough data regarding the nutrition spirituality and nutrition, a new questionnaire had to be designed.

Conclusively it was attained that age, sex, and education, are factors that are related to the nutritional attitude. Therefore, by using different methods to improve the nutritional practice of society and taking into account

the factors that influencing that, it would be essential to analyze the data. Workshops and conferences are necessary to be held regarding the findings of this study to increase the focus on the nutrition dimensions. Indeed, more investigations are needed to enhance the status of attention in spiritual nutrition.

Conflict of interest

Authors declare no conflict of interests.

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