

The Effect of Eating Attitude on Working Performance of Health Personnel

Hüseyin Eriş*

Department of Health Services, Harran University, Şanlıurfa, Turkey

Corresponding author:

Dr. Hüseyin Eriş, Department of Health Services, Harran University, Şanlıurfa, Turkey,
E-mail: erisharran@hotmail.com

Abstract

Eating attitude is a fundamental element that directly affects someone's whole life. It has an important effect especially on the performance in the working life. This study is made to analyse the effect of eating attitude of health personnel, working in the hospital, on their working performance. In order to gather data in the study, scales regarding eating attitude and personnel performance are used. The study was carried out between 15.01.2021-30.02.2021 in the university hospital in the centre of Şanlıurfa and 390 health personnel participated. 62.7% of the 390 health personnel state that they define themselves with normal weight according to the classification of body-mass index, 76.2% of them state that they skip a meal, 81.2% of them state that their eating attitude is normal. According to the results of both correlation and regression analyses, it is determined that eating attitude of health personnel has effect on their working performance. According to the correlation analysis, as the eating attitude gets worse, working performance also decreases. According to the standardized regression coefficient, it is expected that a 1-unit increase in the scale of eating attitude leads 0.235-unit increase in working performance. Hence, improvements in the eating attitude of health personnel would be an important step towards an increase in working performance. As a result of the study, it is found out that eating attitude increases working performance of health personnel by affecting it.

Keywords: Eating attitude; Working performance; Health personnel

Introduction

Nutrition is a physiological necessity for all living creatures to continue their existence. Especially, nutrition is affected by a variety of factors from the production to the consumption of food for people who plan to lead a long and healthy life. The dietary habit (eating attitude) is the most significant life style determinant which affects the human health in the fastest way. ^[1] Hence, people must eat the food they need at the right time, in a sufficient, healthy, *i.e.*, conscious way in order to protect and improve their health. ^[2]

The main aim of individuals, families and societies is to be healthy and productive. Production requires a labour force and only someone whose physiological, mental and spiritual welfare is complete can contribute to the production. ^[3] In addition to unavoidable circumstances, nutrition has aspects like pleasure, aesthetic, taste and cultural richness. ^[4] Eating attitude that affects the whole life of a person has a different importance especially for people who work. When workers have a breakfast with sufficient nutritional element and energy before starting to work, this contributes to cognitive and physiological processes. In addition, it is known that starting to work by having breakfast is related to the low rate of stress, injury and occupational accident. ^[5-8]

The concept of performance is defined as "the quantitative and qualitative definition of what personnel accomplish regarding the work in accordance with the aims of organization". ^[9] Pugh defines performance as the degrees to accomplish the objectives of people or organizations in any activity. ^[10] The concept of performance is defined differently as the performance of

personnel and the performance of organization. From the perspective of personnel, it can be defined as personnel who work in an organization successfully fulfill the duties and responsibilities by completing a job or a duty, assigned to them, in accordance with the determined standards. ^[9] When it comes to the performance of organization, it can be defined as, in the direction of the standards which it has determined in order to accomplish the aims and objectives of the business, showing appropriate behaviours by employee and the degree of coming up to expected objectives. ^[11]

Performance measure has an old tradition within the public policy and administration, and is used as a measurement tool in health services. ^[12] Recently, the interest of governments and health institutions in the performance of health system has been increased. The most important reason of this interest is efficiency, equality, productivity and attaining the quality. In order to achieve this, they have begun to monitor the development of performance indicators of health institutions, in order to monitor, analyse and manage health systems. ^[13] The primary purpose of health institutions is to be efficient and productive in the delivery of health care. Health institutions, which work as labour-intensive, primarily need to high performance of their personnel in order to achieve institutional objectives and gain competitive capacity in the sector. ^[14] Firstly, these personnel

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need to be qualified and motivated while carrying out productive activity. ^[15]

In order to provide more qualified and further services in their territory, health institutions expect high performance from their personnel. ^[11] The health of health personnel who make production should be physically, mentally and socially well to provide the expected performance. Several negative factors such as long-term working in shifts, malnutrition, work over load, time pressure, difficult or complex duties, insufficient respites, monotony, and bad working conditions (place, temperature and lighting etc.) directly affect the performance of health workers. ^[5,15-18] Hence, health personnel should be physically and mentally well while doing their parts under these difficult conditions. ^[19]

Health personnel's being healthy and having high motivations are among the main factors in order for the efficiency in the health institutions to increase and patients to get optimal health service. ^[17] Hence, health personnel should have the opportunity to have a balanced and sufficient nutrition which ensures a healthy life. Personnel that work in health institutions cannot have the opportunity to have a balanced and sufficient nutrition because of factors such as dietary habits, various nutrition problems, the insufficient food services in the health institutions. ^[20] That the performance of health personnel which do not have the opportunity to keep a balanced and sufficient diet is poor because of several reasons regarding the nutrition is normal. ^[20,21] For example, hypoglycaemia which arises even when one meal is skipped may slow down the speed of perception of health personnel and decrease the attention span. ^[22] The performance of personnel that work under these circumstances would fall and they cannot do their jobs properly.

Main problems that may be encountered in health personnel that do not keep a balanced and sufficient diet are as follows: ^[17,21-23]

- Because of not getting enough energy, required for the physical performance, workers experience some symptoms like exhaustion, fatigue and weariness.
- As a result of insufficient glucose supply to the brain because of low blood glucose, there experiences problems in brain functions, attention and perception.
- Deficient intake of vitamins like B12, B6 and folic acid, which have important effects on cognitive function, attention, perception and memory, may lead problems in terms of working performance and occupational accidents.
- Due to exhaustion, tiredness and fatigue that personnel experiences because of anemia, occupational accidents may increase.
- Due to the vitamin A deficiency, visual functions of eye deteriorate.
- Sugar and starch-based foods which are eaten before starting to work, or overeating cause sleepiness in the personnel, increase the hypoglycaemia risk due to the rapid increase and sudden drop of blood glucose.
- Personnel that experience overeating problem tends to accidents more.

Among the nutrition problems that health personnel experience,

the choice of unhealthy foods due to not providing enough food or providing unhealthy foods in health institutions, lack of education regarding nutrition, and irregular dietary habits are the primary ones. Here, as the most important factor, eating attitude of health personnel directly affects the working performance. The studies also suggest that a worker with a fixed nutritional status produce a few times greater than a worker without a fixed nutritional status. ^[22] Studies put forward that there is an important relationship between eating attitude and working performance. ^[18,22,24,25]

The aim of the study

The aim of the study is to analyse the effect of eating attitude of health personnel that work in the hospital on working performance. In the study, skipping meal, state of BMI of health personnel are also analysed and their relationship with eating attitude is studied.

Population and sampling

This study is carried out in the university hospital in the city centre of Şanlıurfa. The population of the study consists of approximately 1.250 personnel that works in the hospital. With the simple random sampling method, with the 95% confidence interval, the number of sampling was determined as 291. The study was carried out between 15.01.2021-30.02.2021. The number of hospital personnel that fill the questionnaire is 390.

Data collection

In the study, a data gathering set which consists of 2 chapters is used for data collection. In the first part, a socio-demographic information form which consists of 7 questions was prepared by reviewing the literature. In the second part of the dataset, the scale, named "eating attitude test: Index of anorexia nervosa symptoms (17 statements)", prepared by Savaşır and Erol, and "scale of employee performance (7 statements)", used by Şehitoğlu ^[26] in his doctorate dissertation, were used. In the study, data are collected with the interview method. The statements of participants in the scale of eating attitude test were asked to fill according to 6-Likert scale (1: Always, 2: Very often, 3: Often, 4: Sometimes, 5: Rarely, 6: Never) for data collection.

The statements of participants in the scale of Employee Performance were asked to fill according to 5-Likert scale (1: Strongly disagree, 2: Disagree, 3: Neither agree nor disagree, 4: Agree, 5: Strongly Agree) for data collection.

Data, collected in the study, was analysed by using SPSS statistics programme. Descriptive statistics, correlation and regression analyses were used in the analyses.

Results

In this part of the study, findings obtained are presented in Table 1, socio-demographic characteristics of health personnel are shown in Table 1, the demographic characteristics of health personnel are shown. When Table 1 analysed, 243 (62.4%) of health personnel, participated in the study, are female and 147 (37.6%) of them are male. 98 (25.1%) of health personnel are married and 292 (74.9%) of them are single. When the occupational groups are analysed, 39 (10%) of them are doctor,

241 (61.8%) of them are nurse, and 110 (28.2%) of them are allied health personnel. 24 (6.6%) of health personnel that participated in the study are thin, 244 (62.7%) of them are normal, 110 (28.2%) of them are fat and 30 (7.8) of them are obese. The average age of the participants is 25.02, the average height of them is 1.69, the average weight of them is 67.21 and the average BMI of them is 23.5.

In Table 2, status of skipping meal of health personnel is shown. When the status of skipping meal of health personnel analysed, 297 (76.2%) of participants state that they skip a meal, 93 (23.8%) of them state that they do not skip a meal.

In Table 3, eating attitude of health personnel is shown. When eating attitude of health personnel in Table 3 analysed, it is seen that 317 (81.2%) of the participants have normal eating attitude, 73 (18.8%) of them have deteriorated eating attitude.

When BMI groups of health personnel and working performance in Table 4 analysed, a statistically significant difference between the total point average of working performance of BMI groups could not be found ($p=0.701$). According to BMI groups, statistically significant difference could not be found between the total point average of working performance of overweight ($26,3 \pm 5,49$), obese ($25,6 \pm 5,53$) normal weight ($25,8 \pm 4,90$), and thin ($24,6 \pm 6,07$) ($p=0.701$).

In Table 5, the relationship between skipping meal, BMI and eating attitude of health personnel is analysed. When the table analysed, statistically significant negative weak relationship between eating attitude and working performance was found ($r=-0.129$; $p=0.021$). In other words, as eating attitude deteriorates, working performance decreases. The relationship between

skipping meal, BMI and working performance was not found as statistically significant ($r=-0.022$; $p=0.691$, $r=0.044$; $p=0.435$).

The effect of eating attitude and BMI variables on working performance is shown in the Table 6 by analysing with the regression analysis model. According to ANOVA test, the model was found as statistically significant. In addition, coefficient of determination of the model (adjusted) was found as 0.051. According to T test which was made for the significance of variables in the model, the effect of BMI on working performance was found as statistically insignificant.

Because only variable which was effective on the working performance was eating attitude according to the finding of regression analysis, second model was established as simple linear regression and findings are shown in Table 7.

The mode of linear regression analysis which was prepared by taking eating attitude scale point as explanatory variable (independent variable), working performance as explained variable (dependent variable) is shown in Table 7. According to ANOVA test, the model was found as statistically significant. In addition, coefficient of determination of the model (adjusted) was found as 0.051. 5.1% of the variability of working performance was explained by eating attitude scale point with linear regression model. According to Student-t test, which was made for the significance of regression model coefficients, both coefficients were found as statistically significant. According to these findings, the estimation of regression line was found as

Working performance= $2.703+0.246 \times$ Eating attitude scale

According to the standard regression coefficient, 1-unit increase

Table 1: Demographic characteristics of health personnel in the study.

Demographic characteristics	Number (n)	Percentage (%)		
Sex				
Female	243	62.3		
Male	147	37.7		
Marital status				
Married	98	25.1		
Single	292	74.9		
Occupational groups				
Doctor	39	10.0		
Nurse	241	61.8		
Allied health personnel	110	28.2		
Classification of BMI				
Thin (BMI < 18.5 kg/m ²)	24	6.6		
Normal (BMI 18.5 - 24.9 km/m ²)	244	62.7		
Fat (25.0-29.9 kg/m ²)	89	22.9		
Obese (BMI>30 kg/m ²)	30	7.8		
	Min.	Max.	Average	Standard Deviation
Age	18 years old	51 years old	25.02	6.78
Height	1.50 m.	1.90 m.	1.69	0.084
Weight (kg)	35 kg.	100 kg.	67.21	13.11
BMI	14.568	33.874	23.5	3.82

Table 2: Status of skipping meal of health personnel.

Status of skipping meal	Number (n)	Percentage (%)
Yes	297	76.2
No	93	23.8
Total	390	100

Table 3: Eating attitude of health personnel.

Eating attitude	Number (n)	Percentage (%)
Eating attitude is normal	317	81.2
Eating attitude is deteriorated	73	18.8
Total	390	100

Table 4: The relationship between BMI groups of health personnel and working performance.

BMI	Average	Std. Deviation	P*
Fat	26.3	5.49	0.701
Obese	25.6	5.53	
With normal weight	25.8	4.90	
Thin	24.6	6.07	

Table 5: Correlation analysis of relationship between skipping meal, BMI and eating attitude of health personnel.

	Status of skipping meal	BMI	Eating attitude
Employee performance	r	0.022	0.044
	p*	0.691	0.435
	N	390	390

Table 6: Regression analysis for the effect of eating attitude and BMI variables on working performance.

	Regression coefficients	Standard regression coefficients	T	p
Invariant	2.410		5.437	0.000
Eating attitude	0.245	0.234	3.522	0.001
BMI	0.013	0.065	0.975	0.331
R	R squared	Adjusted R square	F	p
0.244	0.059	0.051	6.734	0.001

Table 7: Findings of linear regression analysis for the effect of eating attitude scale point on working performance.

	Regression coefficients	Standard regression coefficients	T	p
Invariant	2.703		8.282	0.000
E. Attitude	0.246	0.235	3.538	0.000
R	R squared	Adjusted R square	F	p
0.235	0.055	0.051	12.521	0.000

in the eating attitude scale point is expected to lead 0.235-unit increase in the working performance.

Discussion

This study was carried out on 390 health personnel. 62.3 of health personnel that participated in the study were female. [27] Similarly, found out that 60.4% of health personnel were female in the study which they conducted on health personnel. Women consisted of 66.3% of health personnel in the study on the health workers in Nigeria, which was carried out by Iwuala et al. [28] According to these data, it can be said that predominantly female personnel work in the health sector. In contrast to these studies, 60.7% of health personnel were men, 39.3% of them were women in the study, carried out by Al-Haddad et al. [29] to determine the BMI of health personnel. The most important reason of this can be explained as the number of female workers is generally low because working women are not taken kindly in Bahrain, an Arabic-Islamic state.

When the BMI of health personnel that participated in the study analysed, it was found out that 6.6% of them were thin, 62.7% of them were normal, 22.9% of them were fat and 7.8% of them were obese. BMI values of health personnel were calculated by Arslan and Aydemir and it was found out that 2.8% of them were thin, 38.7% of them were normal, 44.1% of them were fat and 14.4% of them were obese. Also, it was found out that 4% of 131 health personnel were thin, 29% of them were normal, 30% of them were fat and 35% of them were obese in the study, carried out by Canbay et al. [30] in order to determine the dietary habits and the obese incidence of personnel that work in a university. In the study, carried out by Al-Haddad et al. to

determine the BMI of health personnel, it was determined that 30.4% of health personnel were normal, 41.3% of them were overweight and 28.3% of them were obese.

In this study, 297 (76.2%) of health personnel that participated in the study stated that they skip meal. In the literature review, it was found out that there are similar results with this study. In the study regarding the dietary habits of health personnel, carried out by, [31] it was determined that 74.5% of health personnel that participated in the study skip meal. As a result of the study regarding the dietary habits of white-collar workers, carried out by Yurtseven et al., [32] it was found out that all of the personnel skip meal. In the study, carried out by Demir et al., [33] to analyse the dietary habits of health personnel that work by shifts, it was found out that 76% of the health personnel skip meal. Besides, in the studies, carried out by Kaya et al., [34,35] it was concluded that health personnel skip meal. When these results analysed, it is seen that the rate of skipping meal of health personnel is generally high. The most important reason is that health personnel work by shifts for 24 hours in hospitals and nutrition options are insufficient. In addition, because it is difficult for them to leave their working units due to the emergencies that may occur in the hospitals, they do not have the opportunity to eat regularly main meals and snacks. Hence, the skipping meal rate of them is high because they do not have regular working conditions.

In the literature, there are studies that have found out different results regarding skipping meal. In the study, carried out by Geçim and Esin to determine the nutrition levels of nurses, it was found out that 17.94% of nurses that participated in the study ate three meals or less in a day. It is determined that only

15.38 of nurses skip meal, and 83.33 of them skip the lunch which is within the working hours. This result is different from the results that we obtain in the study. The most important reason for this difference is thought to be due to the fact that nurses work in more comfortable units in hospitals, and that nutrition opportunities are more proper compared to health personnel working with a busy schedule such as clinics and emergency services.

When the eating attitude of health personnel analysed, eating attitude of 317 (81.2%) of the participants is normal, eating attitude of 73 (18.8%) of them is deteriorated. In the study, carried out by Yalçınkaya et al.,^[36] to analyse the healthy life style behaviours in health workers, it was determined that eating/nutrition attitude of health personnel was normal. On the other hand, in the study, carried out by Arslantaş et al. to determine the eating attitude of nursing students, it was found out that eating attitude of 84.5% of nursing students was deteriorated. In the study regarding the eating disorder of medical students, carried out by Keskin et al., it was determined that there was eating disorder in 55.9% of students.

Although there are several studies that analyse the relationship between eating attitude and working performance in the literature review, there are limited studies regarding health personnel. According to the results of correlation and regression analyses that made in this study, it was found out that eating attitude had a positive effect on working performance. In the study, carried out by Al Hazmi et al.^[37] to determine the dietary habits of health personnel, it was found out that malnutrition of health personnel affects negatively working performance. On the other hand, in the study, carried out by Uzunturla et al.^[38] to analyse the performance of health personnel, it was determined that the performance of health personnel was below the average. In the study, named “analyse of life style behaviour of health personnel”, carried out by Yanıket et al.,^[39] nutrition of health workers was overemphasized and more comprehensive studies on health workers and especially its effects on working performance were recommended. According to the result of the study on nurses, carried out by Ku et al.,^[40] it was found out that nutrition had an important effect on working performance. It was found out that performance of overweight nurses was lower than nurses with normal weight. In addition, in the study carried out by Paz et al., to determine the effect of nutrition on the working performance of nurses and technicians that work in hospital at night shifts, it was determined that the performance of personnel who eat protein-based meals has increased while the performance of personnel who eat carbohydrate-based meals has decreased, and they feel sleepy within the working hours. Here, it is seen that dietary habit has also effect on working performance.

Results that nutrition has effect on working efficiency have been obtained in the limited studies, carried out in different fields. In the study, named “relationship between nutrition and worker efficiency”, carried out by Bor, it was determined that nutrition of workers had strong relationships between efficiency of work and occupational accidents. In the study, it was found out that workers had health problems because of nutrition problems, they caused to labour loss because workers took a

day off, occupational accidents increased because of the lack of concentration of workers. In the study, named “perceived quality of meal service provided by organization and job performance of employees”, carried out by Türen et al.,^[41] it was found out that meal, which was given to personnel by the security company, affected positively the working performance of personnel. In the study, named “the relationship of nutrition and worker productivity in Kenya”, carried out by Brooks et al., it was found out that malnutrition decreased significantly the working productivity.^[42] In the study, carried out by Wolgemuth et al., the effect of nutritional status of road workers on the productivity of work was analysed, and as a result of the study, it was found out that nutrition had positive effects on working productivity.^[43-46]

Conclusion

According to the BMI classification, 62.7% of 390 health personnel that participated in the study state that they define themselves as with normal weight, 76.2% of them state that they skip meal, 81.2% of them state that their eating attitude is normal. According to the results of both correlation and regression analyses in the study, it was found out that eating attitude of health personnel had an effect on working performance. According to the correlation analyses, as eating attitude deteriorates, working performance decreases. According to the standard regression coefficient, it is expected that 1-unit increase in the eating attitude scale leads to 0.235-unit increase in the working performance. Hence, improvements in the eating attitude of health personnel would be an important step to increase the working performance.

In the literature reviews, it was found out that there were very few studies that analyse the relationship between eating disorders and working performance although eating disorder of personnel that work in the health sector is common and it has known effects on the ability to perform. In such an important subject, it is important to carry out studies that cover different aspects more thoroughly. It should be noted that there are other factors that may affect working performance. In addition to eating attitude, it would be helpful to study the effect of other elements on working performance. It is thought that study regarding this issue would give important opinions to especially managers of health institutions. At the end of this study, it was found out that eating attitude of health personnel affects and increases working performance.

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