



ISSN:1306-3111  
e-Journal of New World Sciences Academy  
2009, Volume: 4, Number: 4, Article Number: 3C0029

**SOCIAL SCIENCES**

Received: March 2009  
Accepted: September 2009  
Series : 3C  
ISSN : 1308-7444  
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**DETERMINATION OF HOSPITAL PERSONNEL SATISFACTION FROM CATERING SERVICES**

**ABSTRACT**

This research was carried out in order to determine the level of hospital personnel satisfaction with the food services. The subject of this research was the personnel of the Turkish Armed Forces Mevki Soldier Hospital with 600 beds. 255 personnel were participated in the study. Data were collected through a survey questionnaire. The questionnaire was composed of two sections (demographic characteristics of the participants and satisfaction with the food services at work place). In order to determine their satisfaction level regarding the food services at work place, the 20-statement Likert type scale was used. The findings were analyzed with respect to the variables of gender, occupation, and educational level. It was found that the level of general satisfaction of female and nurses are the lowest.

**Keywords:** Personnel Satisfaction, Service Quality, Food Services, Nutrition, Health

**HASTANE PERSONELİNİN YIYECEK HİZMETLERİNDEN MEMNUNİYETİNİN BELİRLENMESİ**

**ÖZET**

Bu çalışma, hastane personelinin yiyecek hizmetlerinden memnuniyetlerini belirlemek amacıyla yapılmıştır. Çalışmanın örneklemi Ankara 600 Yataklı Asker Mevki Hastanesi personeli olmuştur. Çalışmaya 255 personel katılmıştır. Veriler anket formu ile toplanmıştır. Anket formu iki bölümden (katılımcıların demografik özellikleri ve hastane yiyecek hizmetlerinden memnuniyet) oluşmuştur. Hastane yiyecek hizmetlerinden memnuniyeti belirlemeye yönelik 20 ifadeden oluşan Likert tipi skala kullanılmıştır. Araştırma bulguları cinsiyet, mesleki statü ve eğitim düzeylerine göre değerlendirilmiştir. En düşük memnuniyet düzeyi kadınlar ile hemşirelerde saptanmıştır.

**Anahtar Kelimeler:** Personel Memnuniyet, Servis Kalitesi, Yiyecek Servisi, Beslenme, Sağlık



## 1. INTRODUCTION (GİRİŞ)

The service sector has developed rapidly in recent times to keep pace with the demands of modern living, changing needs and technological enhancements. Food services, likewise, have also undergone rapid change. Whether undertaken in hotels, schools, hospitals or restaurants, food services aim for customer satisfaction, an important factor in evaluating business success (Üstel, 2005; Meyer, 2000; Ünlü et al. 1998).

The success of mass food services depends on the food being nutritious, balanced, hygienic, good value for money, and served well (Baysal & Küçükaşlan, 2003; Kutluay Merdol et al. 2003; Angelo & Vladimir, 1998). One major provider of mass food services is hospitals, which typically operate year-round 24-hour services for their personnel, patients and visitors (Türksoy, 2002; Kızıltan, 1998). Hospitals need food services to meet the nutritional needs of patients and be able to offer hygienic meals to personnel who are also at risk of illness (Askarian et al. 2004; Türksoy, 2002; Hartwell & Edwards, 2001; Kızıltan, 1998). Problems with hospital food services may lead to food, energy and manpower waste (Aktaş, 1995).

## 2. RESEARCH SIGNIFICANCE (ÇALIŞMANIN ÖNEMİ)

Hospital food services affect not only the quality of patient care but the morale and performance of hospital personnel, too. Satisfaction with food services is determined by many factors such as the atmosphere, cleanliness, hygiene, internal design, furniture and equipment, acoustics, lighting and ventilation of the refectory, as well as the social skills, uniforms, pace, number and attitudes of the catering personnel, and the price, service time, outward appearance, taste and smell of the food (Baysal & Küçükaşlan, 2003; Türksoy, 2002; Guerrier, 1999).

Previous studies have revealed that customer satisfaction in the food sector is influenced by the quality of the food (Dubé et al. 1994), serving style (O'hara et al. 1997), the environment (Gilmore and Dolezal 2000), serving time (Lee and Lambert 2000) and the taste, smell, warmth and appearance of the food (Sahin et al. 2007; Sahin et al. 2006; Stanga et al. 2003).

In order to determine the problems encountered in hospital food services, it is important that data is collected, problems are defined and appropriate solutions are formulated. The aim of this study is to determine the level of personnel satisfaction with the food services of the 600-bed Turkish Armed Forces Mevki Soldiers' Hospital.

## 3. MATERIALS and METHODS (MATERYAL VE YÖNTEM)

The subjects for this study were the employees of the 600-bed Turkish Armed Forces Mevki Soldiers' Hospital and data were collected through a questionnaire administered directly to them. Previous studies into the same topic were utilized in preparing the questionnaire (O'hara et al. 1997, Gilmore and Dolezal 2000, Lee and Lambert 2000, Capra et al. 2005) which comprised two sections, the first of which was designed to obtain information about the demographic characteristics of the participants and the second of which contained items related to participant satisfaction with the "cookserve" food service at the hospital. The questionnaire was piloted on 20 subjects and necessary modifications were made.

The study was planned to include the entire hospital personnel. The hospital refectory offers 24-hour food services for employees on different shifts. As all personnel reported to have made use of the hospital refectory at least once, no criteria were identified for sample selection and the questionnaire was distributed to all



employees (n=306). The participants were allowed to complete the questionnaires overnight so as not to pressurize them, and the completed forms were collected the following day. However, of the 306 questionnaires that were distributed, only 263 were recovered due to the fact that some of the employees on different shifts could not be reached. Of the 263 questionnaires that were returned, 8 were incomplete and therefore eliminated. The study finally included 255 participants.

In order to determine the level of satisfaction with the food services at the hospital, a 20-item Likert type scale was used. The scale had three sections: "Satisfaction with the refectory", "Satisfaction with the service staff" and "Satisfaction with the meals". For questionnaire reliability, the internal consistency coefficient "Cronbach  $\alpha$ " was calculated, and the  $\alpha$  value was found to be 0.71 when all three sections were examined together. The scale had 6 statements about 'the physical characteristics of the hospital refectory', 5 about 'the evaluation of the service staff' and 9 about 'the presentation of the food'. Responses to the statements were graded from 1 to 5, with 1 standing for 'Certainly agree' and 5 for 'Certainly disagree'.

The findings were analyzed with respect to gender, occupation and educational level by using the *Statistical Package for Social Sciences* (SPSS) software.

When evaluating the scores for the level of satisfaction, "Independent-samples T test" was used for gender and educational level and "One-way ANOVA" was used for occupation. Where analysis of variance indicated a difference between the groups, the LSD test was applied in order to identify which groups were different from each other. Frequencies, averages and standard deviations were calculated.

#### 4. RESULTS (SONUÇLAR)

- **Participants:** Of the 255 participants involved in the study, 64.3% were men and 35.7% were women; the majority (58.0%) were university graduates or held post-graduate degrees and 42.0% were high school graduates or below. 49.0% of the participants were 30 to 39 years old and 33.7% were aged 29 or below. 72.2% of the participants were married and 27.8% were single. 17.3% of the participants were medical doctors and 30.6% were other health staff (pharmacists, noncommissioned officers and army officers of health), 24.3% were nurses (all nurses were female) and 27.8% were civil servants (secretaries). 65.1% had worked in their occupational sector for 1-4 years and 34.9% had done so for five or more years.
- **General Satisfaction:** In this stage of the research, the answers to the questions of satisfaction and the comparisons about the variables have been summarized. Table 1 shows the satisfaction level of the hospital staff from the catering services in the hospital. The hospital staffs' level of satisfaction from the refectory ( $2.07 \pm 0.74$ ) is more positive than their satisfaction level from the service staff ( $2.36 \pm 0.76$ ) and the meals ( $2.40 \pm 0.77$ ). The most positive feedback about the refectory were given about its size and order ( $1.82 \pm 0.88$ ), lighting ( $1.91 \pm 0.85$ ) and ventilation ( $2.00 \pm 1.03$ ). The most positive three characteristics of the staff were their attitudes ( $2.08 \pm 0.91$ ), individual after care ( $2.20 \pm 0.92$ ), and outward appearance ( $2.25 \pm 0.93$ ). Furthermore, the nutritive value ( $2.33 \pm 0.98$ ), the portions ( $2.33 \pm 1.08$ ) and the warmth of the meals ( $2.33 \pm 1.08$ ) were



considered as the most important characteristics. The most negative evaluation was made about the number of the service staff (2.77±1.27) and the price of the meals (2.53±1.44).

Table 1. The level of satisfaction of the hospital staff related to the catering services

(Tablo 1. Hastane personelinin yiyecek hizmetlerinden memnuniyet düzeyleri)

	n	mean	Sd <sup>a</sup>
Size and order of the refectory	255	1.82	0.88
Lighting of the refectory	255	1.91	0.85
Ventilation of the refectory	255	2.00	1.03
General cleanliness of the refectory	255	2.25	1.02
Noise of the refectory	255	2.07	0.96
Table equipment of the refectory (glass, salt, napkin...etc.)	255	2.40	1.16
Satisfaction with the refectory	255	2.07	0.74
Number of the staff	255	2.77	1.27
Outward appearance of the staff	255	2.25	0.93
Personal hygiene	255	2.20	0.92
Work experience of the staff	255	2.55	1.05
Attitudes of the staff	255	2.08	0.91
Satisfaction with the service staff	255	2.36	0.76
Attractiveness of the meals	255	2.40	1.09
Color of food	255	2.44	1.06
Variety of the meals	255	2.41	1.09
Portions of the meals	255	2.33	1.08
Freshness of the meals	255	2.38	1.03
Warmth of the meals	255	2.33	1.08
Cleanliness and hygiene of the service tools	255	2.49	1.05
Nutritive value	255	2.33	0.98
Prices of the meals	255	2.53	1.14
Satisfaction with the meals	255	2.40	0.77
General Satisfaction	255	2.29	0.77

<sup>a</sup>Sd:Standard Deviation

Scale: 1=certainly agree, 2=agree, 3=undecided, 4=disagree, 5=certainly disagree

- **The level of satisfaction with regard to the variables:** The findings were analyzed with respect to the variables of gender, occupation and educational level.
- **Gender:** Table 2 shows the satisfaction level scores of the hospital staff with respect to their gender. The correlation between the scores for satisfaction level and gender is statistically significant. Female satisfaction level was lower than that of males in all items.
- **Occupation:** The scale was examined with regard to occupation of the hospital staff and the data obtained is illustrated in Table 3.
- **Educational Level:** The findings with respect to the educational level variable are presented in Table 4.



Table 2. The results of analysis of variance on the catering service satisfaction level of hospital staff based on gender.  
 (Tablo 2. Hastane personelinin cinsiyetlerine göre yiyecek servisinden memnuniyetlerinin varyans analizi sonucu)

	Male (n=164)		Female (n=91)		t <sup>b</sup>	p
	Mean	Sd <sup>a</sup>	Mean	Sd <sup>a</sup>		
Size and order of the refectory	1.68	0.84	2.08	0.90	3.548	0.000*
Lighting of the refectory	1.80	0.84	2.12	0.84	2.937	0.004*
Ventilation of the refectory	1.91	1.04	2.18	0.98	2.006	0.046*
General cleanliness of the refectory	2.03	1.02	2.64	0.91	4.729	0.000*
Noise of the refectory	1.93	0.92	2.34	0.98	3.353	0.001*
Table equipment of the refectory	2.13	1.08	2.89	1.15	5.181	0.000*
<b>Satisfaction with the refectory</b>	<b>1.91</b>	<b>0.73</b>	<b>2.37</b>	<b>0.68</b>	<b>4.945</b>	<b>0.000*</b>
Number of the staff	2.54	1.23	3.18	1.25	3.912	0.000*
Outward appearance of the staff	2.13	0.87	2.47	0.99	2.776	0.006*
Personal hygiene	2.06	0.91	2.46	0.89	3.396	0.001*
Work experience of the staff	2.44	1.11	2.74	0.89	2.327	0.021*
Attitudes of the staff	2.01	0.96	2.20	0.82	1.557	0.121
<b>Satisfaction with the service staff</b>	<b>2.24</b>	<b>0.76</b>	<b>2.61</b>	<b>0.70</b>	<b>3.844</b>	<b>0.000*</b>
Attractiveness of the meals	2.15	1.06	2.87	1.00	5.317	0.000*
Color of food	2.27	1.02	2.73	1.09	3.248	0.001*
Variety of the meals	2.25	1.04	2.70	1.12	3.240	0.001*
Portions of the meals	2.22	1.05	2.54	1.10	2.284	0.023*
Freshness of the meals	2.25	0.99	2.60	1.08	2.581	0.011*
Warmth of the meals	2.31	1.11	2.37	1.03	0.443	0.658
Cleanliness and hygiene of the service tools	2.34	1.05	2.75	1.00	3.016	0.003*
Nutritive value	2.23	1.02	2.51	0.90	2.192	0.029*
Prices of the meals	2.44	1.10	2.69	1.19	1.708	0.089
<b>Satisfaction with the meals</b>	<b>2.27</b>	<b>0.77</b>	<b>2.64</b>	<b>0.74</b>	<b>3.690</b>	<b>0.000*</b>
<b>General satisfaction</b>	<b>2.16</b>	<b>0.67</b>	<b>2.55</b>	<b>0.63</b>	<b>4.657</b>	<b>0.000*</b>

\* p<0.05    <sup>a</sup>Sd:Standard Deviation    <sup>b</sup>Results of t Test  
 Scale: 1=certainly agree, 2=agree, 3=undecided,  
 4=disagree, 5=certainly disagree



Table 3. The results of analysis of variance on the catering service satisfaction level of hospital staff based on occupation  
 (Tablo 3. Hastane personelinin mesleki statülerine göre yiyecek servisinden memnuniyetlerinin varyans analizi sonucu)

	Doctors (n=44)		Other health staff (n=78)		Nurses (n=62)		Civil servants (n=71)		Statistics	
	Mean	Sd <sup>c</sup>	Mean	Sd <sup>c</sup>	Mean	Sd <sup>c</sup>	Mean	Sd <sup>c</sup>	F <sup>d</sup>	p
Size and order of the refectory	1.86	0.77	1.58	0.85b	2.11	0.93a	1.80	0.89b	4.473	0.004*
Lighting of the refectory	1.64	0.57b	1.91	0.90b	2.26	0.90a	1.79	0.81b	5.754	0.001*
Ventilation of the refectory	1.82	0.84	2.00	1.16	2.16	1.01	1.99	0.98	0.976	0.405
General cleanliness of the refectory	1.77	0.68a	2.03	1.01b	2.55	0.84c	2.52	1.19c	8.579	0.000*
Noise of the refectory	1.80	0.63b	2.00	1.01b	2.42	1.00a	2.03	0.99b	4.249	0.006*
Table equipment of the refectory	1.95	0.81a	2.27	1.19b	2.81	1.16c	2.46	1.22bc	5.344	0.001*
Satisfaction with the refectory	1.81	0.54b	1.96	0.75b	2.38	0.73a	2.10	0.78b	6.422	0.000*
Number of the Staff	2.80	1.15b	2.38	1.14a	3.18	1.30b	2.82	1.36b	4.741	0.003*
Outward appearance of the staff	2.11	0.75	2.14	0.91	2.52	0.97	2.23	0.97	2.441	0.065
Personal hygiene	2.20	0.67	1.91	0.93b	2.45	0.84a	2.31	1.04a	4.644	0.004*
Work experience of the staff	2.55	1.00	2.40	1.17	2.76	1.00	2.52	0.97	1.387	0.247
Attitudes of the staff	1.89	0.54	2.13	1.14	2.16	0.75	2.07	0.95	0.894	0.445
Satisfaction with the service staff	2.31	0.64b	2.19	0.77b	2.61	0.69a	2.39	0.83	3.754	0.012*
Attractiveness of the meals	2.18	0.79b	2.15	1.16b	2.79	1.04a	2.48	1.13	4.875	0.003*
Color of food	2.36	0.84b	2.28	1.04b	2.79	1.09a	2.34	1.13b	3.195	0.024*
Variety of the meals	2.32	0.83	2.35	1.18	2.66	1.16	2.32	1.05	1.447	0.230
Portions of the meals	2.09	0.74	2.31	1.18	2.53	1.08	2.34	1.12	1.471	0.223
Freshness of the meals	2.43	0.97	2.26	1.06	2.63	1.15	2.25	0.91	1.981	0.117
Warmth of the meals	2.45	1.00	2.32	1.21	2.39	1.03	2.23	1.03	0.473	0.702
Cleanliness and hygiene of the service tools	2.34	0.81b	2.35	1.10b	2.81	1.02a	2.45	1.09b	2.772	0.042*
Nutritive value	2.30	0.79	2.28	1.15	2.47	0.86	2.27	1.00	0.575	0.632
Prices of the meals	2.27	0.79b	2.58	1.26	2.85	1.21a	2.35	1.06b	3.127	0.026*
Satisfaction with the meals	2.31	0.64b	2.32	0.83b	2.66	0.77a	2.34	0.78b	2.980	0.032*
General satisfaction	2.16	0.54b	2.18	0.72b	2.56	0.65a	2.28	0.68b	4.840	0.003*

\* p<0.05 <sup>c</sup>Sd:Standard Deviation <sup>d</sup>Results of one-way Anova analyse, different lowercase letters (a-b) in a row indicate significant differences,

Scale: 1=certainly agree, 2=agree, 3=undecided, 4=disagree, 5=certainly disagree

Except for the ventilation of the refectory, outward appearance, work experience and attitudes of the staff, as well as the variety, portions, freshness, warmth and nutritive value of the meals, the correlation between the satisfaction scores and professional status was statistically significant. As shown in Table 3, the level of satisfaction of nurses related to foods and food services was lower than that of the other professional groups.



Table 4. The results of analysis of variance on the catering service satisfaction level of hospital staff based on educational level (Tablo 4. Hastane personelinin eğitim düzeylerine göre yiyecek servisinden memnuniyetlerinin varyans analizi sonucu)

	High school and inferior level of education (n=107)		University And Master degree (n=148)			
	Mean	Sd <sup>a</sup>	Mean	Sd <sup>a</sup>	t <sup>b</sup>	p
Size and order of the refectory	1.79	0.91	1.84	0.86	0.531	0.596
Lighting of the refectory	1.95	0.86	1.89	0.85	0.630	0.529
Ventilation of the refectory	2.02	1.11	1.99	0.97	0.195	0.845
General cleanliness of the refectory	2.30	1.09	2.21	0.97	0.690	0.491
Noise of the refectory	2.09	1.01	2.06	0.93	0.267	0.790
Table equipment of the refectory	2.30	1.16	2.47	1.16	1.180	0.239
<b>Satisfaction with the refectory</b>	<b>2.07</b>	<b>0.79</b>	<b>2.08</b>	<b>0.72</b>	<b>0.031</b>	<b>0.975</b>
Number of the Staff	2.61	1.23	2.89	1.30	1.726	0.086
Outward appearance of the staff	2.27	0.97	2.24	0.90	0.293	0.770
Personal hygiene	2.11	1.03	2.27	0.83	1.355	0.177
Work experience of the staff	2.47	1.11	2.60	1.00	1.008	0.315
Attitudes of the staff	2.10	1.05	2.06	0.81	0.347	0.729
<b>Satisfaction with the service staff</b>	<b>2.31</b>	<b>0.80</b>	<b>2.41</b>	<b>0.73</b>	<b>1.022</b>	<b>0.308</b>
Attractiveness of the meals	2.35	1.22	2.45	0.99	0.698	0.486
Color of food	2.39	1.13	2.47	1.01	0.546	0.586
Variety of the meals	2.23	1.08	2.54	1.08	2.236	0.026*
Portions of the meals	2.32	1.12	2.34	1.05	0.196	0.845
Freshness of the meals	2.44	1.04	2.33	1.03	0.823	0.411
Warmth of the meals	2.36	1.15	2.31	1.03	0.384	0.702
Cleanliness and hygiene of the service tools	2.41	1.12	2.54	0.99	0.975	0.331
Nutritive value	2.25	1.13	2.38	0.87	0.969	0.334
Prices of the meals	2.41	1.13	2.61	1.14	1.412	0.159
<b>Satisfaction with the meals</b>	<b>2.35</b>	<b>0.85</b>	<b>2.44</b>	<b>0.73</b>	<b>0.904</b>	<b>0.367</b>
<b>General satisfaction</b>	<b>2.26</b>	<b>0.72</b>	<b>2.32</b>	<b>0.64</b>	<b>0.764</b>	<b>0.445</b>

\* p<0.05      <sup>a</sup>Sd:Standard Deviation      <sup>b</sup>Results of t Test

Scale: 1=certainly agree, 2=agree, 3=undecided,

4=disagree, 5=certainly disagree

The relation between the variety of meals and educational level were statistically significant (Table 4).

##### 5. DISCUSSION (TARTIŞMA)

This study aimed to determine whether hospital staff was satisfied with the food served to them at the hospital refectory with respect to the variables of gender, educational level and occupation. Satisfaction with food places and the food is influenced by many factors. Today's management approaches are based on "full customer satisfaction". In order to achieve this aim, companies should give priority to the enhancement of satisfaction and work motivation of personnel, also known as internal customers (Anderson, 1994). At the same time, they should identify the factors which lower satisfaction



so that these may be eliminated (McDonald, 1994). In a previous study, customers of the food sector were asked about their selection criteria for food companies and the respondents stated that hygiene, quality of meals, and quality of service were all important factors (Kahraman et al. 2004).

The results reveal that the level of satisfaction from the physical characteristics of the refectory is higher than the level of satisfaction from the service staff and the meals served. Availability of appropriate dishes and utensils may also contribute to increased meal consumption, as can eating in an attractive dining area with social interaction (Stanga, Zurflüh, Roselli, Sterchi, Tanner & Knecht, 2003).

In this study, the hospital staff is mostly satisfied with the spaciousness, order, lighting and ventilation of the refectory; the behavior, personal care and clothes of the service personnel; and the nutritive value, portions and warmth of the food. The issues, from which the level of satisfaction is the lowest, are the number of the service personnel and the price of the meals. Accordingly, it can be asserted that an increase in the number of the staff and a discount in the prices of the meals will be advantageous

Unlike our study, on the other hand, O'hara et al. (1997) found that patient-specific characteristics (e.g., age and gender) were not related to satisfaction with food services. The difference in findings may have been due to the difference in the populations involved. In the above study, the participants were patients whereas in ours the staff was examined.

In the present study, the level of general satisfaction, and satisfaction with the refectory, service staff and meals were higher among males. These findings may indicate that men care less about details than women do. Among the dissatisfactions of women in our study were general cleanliness and table equipment of the refectory, service staff and the qualities of the food. In contrast, Sahin et al. (2006) found in their study that women had higher levels of satisfaction. This may be due to the reason that our participants were hospital personnel while those of Sahin et al. were patients. Similar to our study, in a study of hospital staff, Üstel (2005) found that males (79.4%) were more satisfied with food services.

When the occupational groups were examined, it was found that nurses had the lowest level of satisfaction, and that as the educational status and the length of work experience increased, the level of satisfaction decreased. This may be explained as a natural reflection of high expectations of nurses as women. When the variables of occupation and educational level are examined, it can be seen that dissatisfaction was generally due to the staff and meals. Üstel (2005) found that secondary school graduates (78.9%) and doctors (77.8%) had a mass food services satisfaction score between 60 and 100.

Gilmore and Dolezal (2000) found in their study that refurbishment in the hospital refectory led to increased satisfaction levels among hospital personnel about the quality of the food, and the atmosphere and cleanliness of the refectory. This implicates that food services customer satisfaction relies not only on the quality of the food but also the atmosphere of the premises. Availability of appropriate dishes and utensils may also contribute to increased satisfaction, as does eating in attractive premises with appropriate social facilities (Stanga et al. 2003). When all the variables in this study are considered, it can be stated that the personnel was satisfied with the general condition of the refectory (except for women and nurses).



In Lee and Lambert's study (2000), the lowest customer satisfaction area was the pricing of the food. Similarly, in our study too, price was one of the areas where customer satisfaction was low (with all variables). Accordingly, it can be asserted that a discount in meal prices might increase customer satisfaction. Stanga *et al.* (2003) found that another cause of dissatisfaction with food services was low food temperature due to delays between cooking and serving. Another study suggested that temperature and texture were the most important attributes that measure patient satisfaction with food (Hartwell *et al.* 2007). In another study conducted with hospital patients, it was found that the most appreciated aspect was 'the attribute and behaviors of staff serving foods', and the least appreciated one was 'the warmth of meals'. Half of the patients stated that they did not like the taste and smell of the food (Sahin *et al.* 2007). The warmth, color of meals were also among the least appreciated aspects in the present study (Table 1-4).

Watters *et al.* (2003) conducted a study to evaluate patient satisfaction, and concluded that the staff interacting with patients during a meal service can influence their satisfaction. Similarly, the staff working in hospitals food services may have a great impact on the level of satisfaction of internal customers, i.e. doctors and nurses. Sahin *et al.* (2006) conducted a study in a hospital and concluded that 85.6% of their participants were satisfied with the attitudes and behaviors of the service staff. Dubé *et al.* (1994) found that food quality was the best predictor of patient satisfaction with meals and food service, followed by customization and attitude of the staff who deliver the menus. Our study also found satisfaction with food personnel attitudes. However, the participants seemed to be dissatisfied with the number and experience of the personnel. People who used the hospital refectory in our study voiced their wishes for more and better experienced food personnel.

## 6. CONCLUSION (SONUÇ)

Turkish hospitals have outsourced their food services since 1990. However, there are not enough studies evaluating the satisfaction level of hospital refectory users within this system. It is hoped that the results of this study will inform catering companies that work with hospitals and hospital administrators who are responsible for buying this service. Our results suggest that customer satisfaction at hospital refectories may be increased by better general cleanliness, the use of new equipment, a bigger number of personnel with better experience, revised food prices and better hygiene of service equipment. In addition to these, daily menus should be prepared by taking into consideration the preferences of refectory users because the contents and variability of the menu comprise an important factor in enhancing satisfaction. Comment cards and other quality assurance instruments can also provide useful information for the hospital administration and food department, who may initiate quality improvement studies to develop solutions for the elimination of dissatisfaction.

The limitation of our study was that it was conducted with the employees of one single hospital. Therefore, the results may not be generalizable to other populations. Further research is thus recommended for other types and sizes of food service operations.



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