



Relationship of Food Services and Patients Satisfaction in Medan Advent's Public Hospital

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Abstract

Food service in hospital nutrition installations is a form of service activity for patients who are hospitalized which aims to meet the nutritional needs of patients. This study aimed to analyze the relationship between food services and satisfaction of inpatients at the Adventist General Hospital. Field. This study used a survey research method with a cross sectional approach. The data collection technique used a questionnaire. Population of 156 people with a sample of 112 people based on Slovin calculations. Based on the results of the chi-square statistical test, it was found that the variables of mealtime ($p = 0,000$), food appearance ($p = 0,000$), food taste ($p = 0,000$), waiter friendliness ($p = 0,000$), cleanliness of tools and food ($p = 0.012$), and food variation ($p = 0.00$). The result of multiple logistic regression test shows that the meal time variable has a significant effect on patient satisfaction. There is a relationship, meal time, food appearance, taste of food, waiter friendliness, cleanliness of equipment and food, variety of food with patient satisfaction with food service at the Medan Adventist General Hospital. It is recommended to the special hospital nutrition installation that in food processing always pay attention to the main factors in food processing so that the level of patient satisfaction continues to increase and still maintains the quality and quality of food service.

Introduction

Nutritional support is part of therapy that plays an important role in patient recovery. Optimal nutritional support will increase the patient's immune system so that it will also increase the body's ability to fight disease (Nurparida, 2012).

According to the World Health Organization (WHO), one of the health services that has a very important role in providing health services to the community is a hospital. The existence of a hospital as a health service institution is regulated in Law No. 44 of 2009. The hospital plays an important role in the health care system and is a health service institution that has an organized medical professional staff, and inpatient facilities, by providing medical services, nursing and related services 24 hours per day, 7 days per week and provide complete health services to the community, both curative and preventive. In addition, the hospital also functions as a place of education for health workers and a place of research. Good health services provide effective, safe, and high-quality services to those who need them, supported by adequate resources.

Food services in hospitals are generally closely related to nutritional installations. A nutrition installation is a functional unit in a hospital that aims to provide quality, nutritious food, good hygiene and sanitation in nutritional installations that are in accordance with health standards for patients, as well as to accelerate the patient's healing process (Nursalam, 2014). Food service in the nutrition installation of a hospital is one form of service activity for patients who are hospitalized which aims to meet the nutritional needs of patients in an effort to accelerate disease healing, achieve optimal nutritional status and can meet patient satisfaction measures. Food service in hospitals is carried out with the aim of providing food of good quality, quantity according to needs and good and proper service so that it is adequate for clients or consumers in need. In practice, the Nutrition Installation/Nutrition Unit manages nutritional activities according to the management function adopted and refers to the applicable Hospital Nutrition Service Guidelines and applies the established Standard Procedures (Sulistiyanto et al., 2017).

Improving the quality and standards of hospital services has been stated in the Decree of the Minister of Health of the Republic of Indonesia No. 129 of 2008 which includes minimum service standards that can be used as a reference for hospital managers and related elements in planning, financing and implementing each type of service. Improving the quality of the hospital itself aims to provide the best service for patients, namely through a process that can accelerate the healing and recovery of patients as expected. However, this important goal in general has not been able to run optimally, one of the reasons is the hospital's lack of attention to food service to patients (Kemenkes, 2013).

The quality of the food produced, is expected to accelerate the healing of the disease. The food served is said to be of good quality if the food has a high taste, appearance, and attractive presentation so as to encourage patients to finish their food and speed up the healing process (Depkes, 2007). Efforts to improve the quality of food and the quality of hospital services to date have not been implemented optimally, with 15.4% of patients being treated at the hospital. Hasan Sadikin Bandung left between 25%-50% leftovers (Aliffianti, 2016).

Several studies also state that the nutritional value of food in hospitals needs special attention. One of them is the results of research at the Mamuju Hospital, West Sulawesi in 2012 which is still very low, due to the low budget allocated to the hospital, the lack of workers, and there is no standard for nutritional values made by the Nutrition Installation of the local hospital. In addition, the results of research at the Central General Hospital Prof. R. D. Kandou Manado in 2013 there were 27.0% of patients who were dissatisfied with the variety of menus, 43% of patients were dissatisfied with the way the food was served, and 36% of patients were dissatisfied with the timeliness of serving food. Based on Minimum Service Standards (SPM), customer satisfaction, especially for inpatients at RSUD Haji Medan in 2013 was 90%. Meanwhile, the target achievement in 2013 was not good enough, it was found that 80% of the time of giving food, 35% of leftovers that were not eaten by patients, and 98% of errors in diet (Nareswara, 2017).

Medan Adventist Hospital is a hospital which is one of the hospitals that provides food services to patients. Food services at the Medan Adventist Hospital have not been carried out optimally, both in terms of the Nutritionist at the Medan Adventist General Hospital, that they still get complaints from patients related to the food served, one of which is about the taste of the food. In addition, the nutritionist stated that there was still quite a lot of food left in the hospital. Leftover food in the hospital will affect patient satisfaction with food services for inpatients.

Based on this background, researchers are interested in conducting research on "The Relationship of Food Service to Inpatient Satisfaction at the Medan Adventist General Hospital". The purpose of the study was to determine the relationship between food service and satisfaction of inpatients at the Medan Adventist General Hospital.

Methods

This type of research is an analytical survey method with a cross sectional approach. This research will be conducted at the Medan Adventist General Hospital in October-November 2020. The population in this study were all 156 inpatients in the Internal Medicine Polyclinic at the Medan Adventist General Hospital. The sample size was determined by the Slovin formula so that a sample of 112 people was obtained.

Data collection in this study was done by using a questionnaire (questionnaire). Analysis of the data used in this study is univariate analysis aims to explain or describe the characteristics of each variable studied. Bivariate analysis to see the relationship between the independent variable and the dependent variable with a statistical significance limit of 0.05 p value. Multivariate analysis aims to see the significance of the effectiveness between the independent variable and the dependent variable simultaneously and at the same time determine which independent factor is more dominantly effective in influencing the dependent variable. The model used in multiple logistic regression.

Result and Discussion

Characteristics of Respondents

Based on the results of the characteristics of the respondents, it can be seen that based on the gender category, it was found that there were 49 male respondents (43.8%) and 63 female respondents (56.2%), in the age category, respondents aged 14-22 years were found. 9 people (8.0%), age 23-31 years as many as 11 people (9.8%), age 32-40 years as many as 28 people (25.0%), age 41-49 years as many as 15 people (13, 4%), age 50-58 years as many as 16 people (14.3%), age 59-67 years as many as 24 people (21.4%), age 68-76 years as many as 7 people (6.2%), and age >76 years as many as 2 people (1.8%). Based on the education category, it is known that 18 respondents (16.1%) elementary school education, 20 junior high school education (17.9%), 43 high school education (38.4%) and higher education (PT) as many as 31 people (27.7%). Meanwhile, based on the job category, it is known that the respondents who work as students are 3 people (2.7%), students are 8 people (7.1%), IRT are 41 people (36.6%), Civil Servants/Teachers/Lecturers are as many as 14 people (12.5%) and entrepreneurs/private/traders/employees as many as 46 people (41.1%).

Table 1. Frequency Distribution of Respondent Characteristics in Medan Adventist General Hospital in 2020

No	Characteristics Of Respondents	Frequency (N)	Percentage (%)
1	Gender		
	Man	49	43,8
	Woman	63	56,2
2	Age		
	14-22 Years Old	9	8,0
	23-31 Years Old	11	9,8
	32-40 Years Old	28	25,0
	41-49 Years Old	15	13,4
	50-58 Years Old	16	14,3
	59-67 Years Old	24	21,4
	68-76 Years Old	7	6,2
>76 Years Old	2	1,8	
3	Education		
	Elementary School	18	16,1
	Junior School	20	17,9
	High School	43	38,4

No	Characteristics Of Respondents	Frequency (N)	Percentage (%)
	Higher Education	31	27,7
4	Work		
	Students	3	2,7
	Student	8	7,1
	IRT	41	36,6
	Civil Servants/Teachers/Lecturers	14	12,5
	Self-Employed/Private/Merchant/Employee	46	41,1
	Total	112	100,0

Univariate Analysis

Based on the results of research on the variable meal time, it is known that in the good category as many as 77 people (68.8%) and less as many as 35 people (31.2%). Based on the appearance of the food, it is known that in the good category as many as 61 people (54.5%) and less as many as 51 people (45.5%). Based on the taste of the food, 56 people (50.0%) were in the good category and 56 people (50.0%). Based on the friendliness of the waiter, it is known that in the good category as many as 71 people (63.4%) and less as many as 41 people (36.6%). Based on the cleanliness of tools and food, it is known that in the good category as many as 98 people (87.5%) and less as many as 14 people (12.5%). Based on the variety of food, it is known that in the good category as many as 64 people (57.1%) and less as many as 48 people (42.9%). Based on patient satisfaction with food service, it is known that in the satisfied category as many as 70 people (62.5%) and dissatisfied as many as 42 people (37.5%).

Table 2. Distribution of Frequency of Meal Times, Appearance of Food, Taste of Food, Hospitality of Waiters, Cleanliness of Tools and Food, Variety of Food and Patient Satisfaction on Food Service at Medan Adventist General Hospital in 2020

No.	Variable	N	%
1	Meal Time		
	Good	77	68,8
	Less	35	31,2
2	Food Appearance		
	Good	61	54,5
	Less	51	45,5
3	Taste Of Eating		
	Good	56	50,0
	Less	56	50,0
4	Waitress Hospitality		
	Good	71	63,4
	Less	41	36,6
5	Hygiene Tools And Food		
	Good	98	87,5
	Less	14	12,5
6	Food Variations		
	Good	64	57,1
	Less	48	42,9
7	Satisfaction		
	Satisfied	70	62,5
	Dissatisfied	42	37,5
	Total	112	100,0

Bivariate Analysis

Based on the results of cross tabulation between meal times and satisfaction, it is known that meal times in the good category are 77 people (68.8%) with patient satisfaction in the satisfied category as many as 58 people (51.8%) and 19 people not satisfied (17.0%).), while eating time in the less category were 35 people (31.2%) with patient satisfaction in the satisfied category as many as 12 people (10.7%) and 23 people (20.5%) dissatisfied. Based on the results of the chi-square statistical test obtained value ($0.000 < 0.05$), which means that there is a relationship between meal times and patient satisfaction with food services at the Medan Adventist General Hospital.

Based on the results of cross tabulation, it is known that between the appearance of food and satisfaction, it is known that the appearance of food in the good category is 61 people (54.5%) with patient satisfaction in the satisfied category as many as 49 people (43.8%) and not satisfied as many as 12 people (10.7 %), while the appearance of food in the poor category was 51 people (45.5%) with patient satisfaction in the satisfied category as many as 21 people (18.7%) and dissatisfied as many as 30 people (26.8%). Based on the results of the chi-square statistical test, it was obtained (value ($0.000 < 0.05$), which means that there is a relationship between food appearance and patient satisfaction with food service at Medan Adventist General Hospital.

Based on the results of cross tabulation between food taste and satisfaction, it is known that the taste of food in the good category is 56 people (50.0%) with patient satisfaction in the satisfied category as many as 45 people (40.2%) and 11 people dissatisfied (9.8%)), while the taste of food in the poor category was 56 people (50.0%) with patient satisfaction in the satisfied category as many as 25 people (22.3%) and 31 people (27.7%) dissatisfied. Based on the results of the chi-square statistical test, it was obtained (value ($0.000 < 0.05$), which means that there is a relationship between food taste and patient satisfaction with food services at the Medan Adventist General Hospital.

Based on the results of the cross tabulation between the friendliness of the waiter and satisfaction, it is known that the friendliness of the waiter in the good category is 71 people (63.4%) with patient satisfaction in the satisfied category as many as 57 people (50.9%) and not satisfied as many as 14 people (12.5%), while the appearance of food in the poor category was 41 people (36.6%) with patient satisfaction in the satisfied category as many as 13 people (11.6%) and 28 people dissatisfied (25.0%). Based on the results of the chi-square statistical test, it was obtained (value ($0.000 < 0.05$), which means there is a relationship between the friendliness of the waiter and the patient's satisfaction with food service at the Medan Adventist General Hospital.

Based on the results of the cross tabulation between the cleanliness of tools and food with satisfaction, it is known that the cleanliness of tools and food in the good category as many as 98 people (87.5%) with patient satisfaction in the satisfied category as many as 66 people (58.9%) and dissatisfied as many as 32 people (28.6%), while the appearance of food in the poor category was 14 people (12.5%) with patient satisfaction in the satisfied category as many as 4 people (3.6%) and 10 people dissatisfied (8.9%). Based on the results of the chi-square statistical test, it was obtained value ($0.012 < 0.05$), which means that there is a relationship between food and equipment hygiene and patient satisfaction with food services at the Medan Adventist General Hospital.

Based on the results of cross tabulation between food variations and satisfaction, it is known that there are 64 food variations (57.1%) in the good category with patient satisfaction in the satisfied category as many as 49 people (43.8%) and 15 people unsatisfied (13.4%).), while the appearance of food in the poor category was 48 people (42.9%) with patient satisfaction in the satisfied category as many as 21 people (18.7%) and 27 people dissatisfied (24.1%). Based

on the results of the chi-square statistical test, it was obtained value ($0.001 < 0.05$), which means that there is a relationship between food variety and patient satisfaction with food services at the Medan Adventist General Hospital.

Table 3. Cross Tabulation between MealTimes, Food Appearance, Food Taste, Waitress Hospitality, Equipment and Food Hygiene and Food Variations with Respondents' Satisfaction on Food Service at Medan Adventist General Hospital in 2020

Variable	Satisfaction				Sum		ρ Value
	Satisfied		Dissatisfied		N	%	
	N	%	N	%			
Meal Time							
Good	58	51,8	19	17,0	77	68,8	0,000
Less	12	10,7	23	20,5	35	31,2	
Food Appearance							
Good	49	43,8	12	10,7	61	54,5	0,000
Less	21	18,7	30	26,8	51	45,5	
Food Taste							
Good	45	40,2	11	9,8	56	50,0	0,000
Less	25	22,3	31	27,7	56	50,0	
Waitress Hospitality							
Good	57	50,9	14	12,5	71	63,4	0,000
Less	13	11,6	28	25,0	41	36,6	
Hygiene Tools And Food							
Good	66	58,9	32	28,6	98	87,5	0,012
Less	4	3,6	10	8,9	14	12,5	
Food Variations							
Good	49	43,8	15	13,4	64	57,1	0,001
Less	21	18,7	27	24,1	48	42,9	

Multivariate Analysis

Based on the results of the multiple logistic regression test, it is known that there are 2 research variables that are the most significant. The significant variable is mealtime with a value of $\text{sig}=0.001$ $\text{Exp}(B)$ 10.985, which means that mealtime has a significant effect of 10.9 times on patient satisfaction. Based on the results of the simultaneous test (binary multiple regression) it was found that the most dominant factors affecting patient satisfaction in food service were the variables of meal time and food appearance.

Table 4. Binary Multiple Regression Test (Logistic Regression)

Variable	Beta	Sig Value	Exp Value(B)
Meal Time	2.397	0,001	10,985
Food Appearance	2.385	0,001	10,864
Food Taste	1.394	0,019	4,032
Waitress Hospitality	1.633	0,006	5,119
Hygiene Tools And Food	2.089	0,023	8,076

Relationship of MealTimes with Patient Satisfaction

Based on the results of the study, it is known that mealtime with satisfaction is known to eat time in the good category as many as 77 people (68.8%) with patient satisfaction in the satisfied category as many as 58 people (51.8%) and 19 people not satisfied (17.0%).), while eating time in the less category were 35 people (31.2%) with patient satisfaction in the satisfied category as many as 12 people (10.7%) and 23 people (20.5%) dissatisfied. The results of the

chi-square statistical test obtained value of 0.000 and therefore the value of value ($0.000 < 0.05$), which means that there is a relationship between meal times and patient satisfaction with food services at the Medan Adventist General Hospital.

The results of this study are in line with research conducted by E Widasari (2017) on the accuracy of meal times with patient satisfaction. The results showed that in the group of patients who stated that they were right in giving food, most of them also stated their satisfaction with food services from the hospital (96.6%). The results of the study showed that the OR value showed that if the patient stated that he was right in giving food, he also tended to be 12.7 times satisfied with the hospital food service. Based on the Chi Square statistical test analysis, the results showed that there was a significant relationship between the accuracy of feeding hours and the level of patient satisfaction with food service with ($p = 0.017$) (Widosari & Widiyaningsih, 2017).

According to the assumption that the timeliness of serving food at the Adventist Hospital is good and the provision of food to patients has also been arranged and carried out according to the schedule for giving it. But in the level of satisfaction with time there are still some patients who still feel unsatisfied. There are several problems related to the feeding schedule carried out in hospitals, namely in distributing food to patients, not a food delivery service officer does not know for sure which patients need it more than patients who do not really need it. The distribution of food is carried out with the patient who is found first or or who is closest to the food serving room, then the patient is given first, without reviewing which patient needs it more. Based on this, there are some patients who are not satisfied with the food serving time given because of this. The results of this study are in accordance with the theory according to Weekes (2007) that it is very important to protect meal times (Protected Meal Times) in hospital institutions, which means that during meal times, all non-urgent clinical activities can be stopped first. This method is recommended as a method that can increase the food intake of hospitalized patients more effectively.

Relationship of Food Appearance with Patient Satisfaction

Based on the appearance of food with satisfaction, it is known that the appearance of food in the good category is 61 people (54.5%) with patient satisfaction in the satisfied category as many as 49 people (43.8%) and not satisfied as many as 12 people (10.7%), while the appearance food in the poor category as many as 51 people (45.5%) with patient satisfaction in the satisfied category as many as 21 people (18.7%) and dissatisfied as many as 30 people (26.8%). The results of the chi-square statistical test obtained value of 0.000 and therefore the value of value ($0.000 < 0.05$), which means that there is a relationship between food appearance and patient satisfaction with food service at Medan Adventist General Hospital.

The results of this study are in line with research conducted by Nareswara (2017) about patient satisfaction from the quality of hospital food with leftovers. The results of the chi square test showed that there was a relationship between patient satisfaction with the appearance of food and food waste ($p = 0.044$) (Nareswara, 2017).

According to the researcher's assumptions, there are still some patients who are not satisfied with the appearance of the food served by the hospital. One of them is the form of the food served and the vegetables served to the patients who stated that they did not agree with the two things. In this case there are some patients who do not like or do not consume the food served, for example, patients who do not consume several types of vegetables, side dishes and so on so that it has an impact on the food served in various forms of appearance or processed dishes given to patients who are less interested consume these foods. So that it will have an impact on the level of patient satisfaction is less with the food served by the hospital. Respondents' satisfaction with the appearance component includes: color, shape, portion, texture, and food presentation.

The appearance of food is a major factor in patient satisfaction. Although the food is processed with a high taste, but if the appearance of the food is less attractive, then the value of the food becomes meaningless because the food that is displayed when it is served will stimulate the sense of sight, thus creating a sense of taste and satisfaction for the dish served. According to Widyastuti and Pramono (2014) the texture and shape of food has an influence on a person's acceptance. Foods that have a solid or soft texture or consistency also affect a person's attraction to eat them. This result is also in line with another theory that the main aspect of food is the appearance of the food when it is served and the taste of the food when it is eaten. Both aspects are equally important to note in order to really produce satisfying food. The appearance of food in food service is a determining factor for patient satisfaction. There are three things that need to be considered in serving food, namely the tools used must match the volume of the food served, how to arrange the food in the serving place, and the garnish used as decoration.

The Relationship of Food Taste with Patient Satisfaction

Based on the results of the study, it was found that the taste of food in the good category was 56 people (50.0%) with patient satisfaction in the satisfied category as many as 45 people (40.2%) and 11 people (9.8%) dissatisfied, while the taste of the food in the less category as many as 56 people (50.0%) with patient satisfaction in the satisfied category as many as 25 people (22.3%) and dissatisfied as many as 31 people (27.7%). The results of the chi-square statistical test obtained value of 0.000 and therefore the value ($0.000 < 0.05$), which means that there is a relationship between food taste and patient satisfaction with food service at the Medan Adventist General Hospital.

The results of this study are in line with research conducted by R. F Kartini (2018) regarding the relationship between the shape, taste of food, and how to serve it with leftover snacks in pediatric patients. way of serving, and taste of food. Food appearance assessment considers several components consisting of color, shape, portion size, and presentation method. The average leftover food from the respondents who stated that the form of food was very suitable was 26.38%. The results of statistical tests showed that the taste of food was related to the rest of the snacks in pediatric patients (0.003). The results showed that the better the respondent's assessment of the taste of the food, the less leftover snacks (Kartini & Primadona, 2018).

According to the assumption that the taste of the food contained in the food served to the patient, in this case, it is very influential on patient satisfaction in the food service provided by the hospital to the patient. The taste of food contained in food is a factor that determines the acceptability of food. The taste of food is influenced by the stimulation received from food to the senses of taste and smell. In this case the researcher can assume that the taste of the food served by the hospital to patients who feel dissatisfied because the food served is different from the taste of the food consumed daily by patients when they are at home so it is found that some patients are dissatisfied with the taste of the food.

Respondents' dislike of the taste component is caused by the taste of food that is different from what is usually consumed, the aroma of food that does not increase appetite. These results can be seen from the answers of several respondents. This is in accordance with the theory that the taste of food is an aspect of food judgment that likes to be assessed accurately when compared to the texture and color of food. The taste of food is very subjective, depending on the taste of the patient who consumes it (Brooks, 1966). According to Winarno (2002), an important factor that makes an assessment of the taste of food is good or not is the aroma of the food itself, from this aroma will arise an appetite. Appetite will increase if there is a variety of food aromas. The taste of food can be less acceptable, it can be caused by the use of inappropriate cooking spices, resulting in an unacceptable taste. In the processing process, it is necessary to have the right ratio of spices so that the food becomes delicious.

The Relationship of Waitress Hospitality with Patient Satisfaction

Based on the results of the study, it was found that the hospitality of the waiters in the good category was 71 people (63.4%) with patient satisfaction in the satisfied category as many as 57 people (50.9%) and 14 people not satisfied (12.5%), while the appearance of the food in the less category as many as 41 people (36.6%) with patient satisfaction in the satisfied category as many as 13 people (11.6%) and not satisfied as many as 28 people (25.0%). The results of the chi-square statistical test obtained value of 0.000 and therefore the value of value ($0.000 < 0.05$), which means that there is a relationship between the friendliness of the waiter and the patient's satisfaction with food service at the Medan Adventist General Hospital.

The results of this study are in line with research conducted by Purba et al. (2013) about the relationship between the way food is served and the level of patient satisfaction. The results showed that there were 42 patients out of a total of 100 patients who chose the way of serving food was not good. Of the 42 patients, 27 patients (64.3%) stated that they were not satisfied with the way the food was served and 15 patients (27.6%) said they were satisfied. If the way of serving food is good, more patients will be satisfied. Based on the results of the chi-square test, there is a relationship between the way food is served and the level of patient satisfaction, the value ($p < 0.05$, namely $p = 0.000$). The OR value was obtained at 4.727, which means that patients who feel good with the way food is served will have a 4.727 times chance to feel satisfied with the way food is served compared to patients who don't feel good with the way food is served at BLU Irina C. RSUP. Prof. Dr. R.D. Kandou Manado (Purba et al., 2013).

According to the assumption of the researcher, the lack of fulfillment of the patient's needs and desires for the food served during the treatment period and the food delivery service officers also do not know the patient's needs or tastes for food, because in the provision of food the waiter only serves as an introduction to food to the patient, but in this case a Food waiters can provide other services in the form of good information to patients that the food served has good nutritional intake while in treatment in a friendly and courteous manner so that patients can know and remain satisfied with the services provided.

The quality of food service is a crucial part of the tangible product in the service, given that hospitals offer services and products simultaneously. This is in line with the theory that patients get two products that are intangible, namely the service provided by the waiter at the hospital and also get a tangible product, namely the food served. If the quality of food service is served well, then the patient's acceptance of the food served can be seen from the rest of the patient's food that has been eaten. Optimal service will provide satisfaction to the patient. Patients interpret good food service if the service is fast and friendly, as well as the attitude of the food serving officer must always greet when delivering food to patients. Dube (1994) stated that the patient's feeling of satisfaction with nutritional services can be identified into seven influencing dimensions, namely: food quality, timeliness of serving, service reliability, food temperature, attitudes of officers who serve patients eating, attitudes of food distribution officers and other treatments to patients.

Relationship of Hygiene of Tools and Food with Patient Satisfaction

Based on the results of the study, it was found that the cleanliness of tools and food in the good category was 98 people (87.5%) with patient satisfaction in the satisfied category as many as 66 people (58.9%) and 32 people (28.6%) dissatisfied, while the appearance food in the poor category as many as 14 people (12.5%) with patient satisfaction in the satisfied category as many as 4 people (3.6%) and dissatisfied as many as 10 people (8.9%). The results of the chi-square statistical test obtained value of 0.012 and therefore the value of value ($0.000 < 0.05$), which means that there is a relationship between food and equipment hygiene and patient satisfaction with food services at the Medan Adventist General Hospital.

The results of this study are in line with research conducted by Inayah (2017) outside catering food services on the level of patient satisfaction. The results showed that based on the tangibles aspect of the appearance of the snack, the cleanliness of cutlery and the variety of food were significantly related to customer satisfaction with the p value of the appearance of the snack (p 0.000), the p value of the cleanliness of cutlery (p 0.000) and the p value of food variation (p 0.014).). The value of $r = 0.695$ on the appearance of snacks and the cleanliness of cutlery shows a strong and positive relationship. The value of $r = 0.445$ on the variety of food shows a relationship at a moderate level (Inayah, 2017).

According to the researcher's assumption, from several plates used in serving food, there are some utensils that look blotchy such as soap residue or cleaning detergent that is still attached to the plates used in serving food, so that it has an impact on the level of satisfaction of patients who feel dissatisfied with the cleanliness of the tools used. Supporting aspects of food service served by the hospital to patients are the cleanliness of equipment and food which also affects patient satisfaction in food service. These results are in accordance with the Hospital Nutrition Guidelines that clean ready-to-use equipment should not be held in direct contact with food or stuck in the mouth, the cleanliness of the equipment must not contain *Escherichia coli* or other germs and the condition of the equipment must be intact, not defective, not cracked, not lumpy and easy to clean. The principle of serving food is placed in clean, separate and closed containers to avoid contamination. Another theory also states the same thing in Agustina's research, that good food must pay attention to health aspects. The food must be safe when consumed by the patient. To get food that is hygienic, the equipment used for cooking, processing personnel and the correct processing method must be considered.

Relationship of Food Variation with Patient Satisfaction

Based on the results of the study, it was known that there were 64 food variations (57.1%) in the good category with patient satisfaction in the satisfied category as many as 49 people (43.8%) and 15 people unsatisfied (13.4%), while the appearance of the food in the less category as many as 48 people (42.9%) with patient satisfaction in the satisfied category as many as 21 people (18.7%) and dissatisfied as many as 27 people (24.1%). The results of the chi-square statistical test obtained value of 0.001 and therefore the value of value ($0.000 < 0.05$), which means that there is a relationship between food variation and patient satisfaction with food service at Medan Adventist General Hospital.

The results of this study are in line with research conducted by Purba et al. (2013) about the relationship between variations in food menus and the level of patient satisfaction. The results showed that there were 38 patients out of a total of 100 who stated that the variety of food was not good. Of the 42 patients, 19 patients (50.0%) stated that they were not satisfied with the variety of menus served and 19 patients (50.0%) stated that they were satisfied. If the variety of food menu is good, more patients will be satisfied. Based on the chi-square test, there is a relationship between variations in the food menu and the level of patient satisfaction, the value ($p < 0.05$, namely $p = 0.001$). An OR value of 4.636 was obtained, which means that patients who feel good with the variety of food menus served will have 4,636 times the opportunity to feel satisfied with the food menu served compared to patients who do not feel good with the food menu served (Purba et al., 2013).

According to the researcher's assumption that the food served to inpatients who are not satisfied can be seen from the leftovers consumed by patients who do not finish the rice served, where the rice is served in the form of a mushy texture / rice porridge and this presentation is done or given at every meal given and the rice porridge is served continuously so that it can be said that there is no variation in the form of processed food so that it will have an impact on the satisfaction of patients who feel dissatisfied, only processed vegetable foods and side dishes are served varied In this case, the hospital has made the right policy in food processing that

always varies to be served to patients while still considering the value of nutritional intake from processed foods served to inpatients, although there are some processed foods that do not have variations in each presentation. This is in accordance with the existing theory that the variety of food ingredients is an important factor because without paying attention to the variety of food ingredients used, the patient will feel bored eating food from the hospital even though the food is processed in various forms. The more varied the food ingredients used, the more varied the menu that can be made. The more varied the menu served, the more satisfied the patient will be.

Conclusion

Based on the results of the study, it can be concluded that there is a relationship between meal times, food appearance, food taste, waitress friendliness, cleanliness of utensils and food and food variations with patient satisfaction with food service at Medan Adventist General Hospital with p -value <0.05 . It is recommended for research sites, especially Medan Adventist General Hospital to maintain and improve quality in food processing, always provide better and sustainable services provided to patients, maintain and improve the quality of food services while maintaining the nutritional values of food, and always evaluate and improve the quality of hospital services, especially food services

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