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Photo Essay

POLITEKNIK KESEHATAN KEMENKES PALANGKA RAYA: HEALTH FORUM AND INTERNATIONAL SEMINAR
THE NEW NORMAL : Creating a Pleasant Virtual Communication

The effect of food presentation and ingredients modifications on patient's leftovers at Harapan Insani Medical Center Hospital

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DOI: [10.35898/ghmj-51596](https://doi.org/10.35898/ghmj-51596)

Selection and peer-review under responsibility of the scientific committee and the editorial board of the Annual Health Forum and International Seminar of the Politeknik Kesehatan Kemenkes Palangka Raya

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The management of nutrition services at hospitals plays an important role in providing nutritional care to patients according to their specific conditions. It should be oriented to the needs and satisfaction of clients in the aspects of promotive, preventive, curative, rehabilitative to improve the quality of life. Hospital nutrition service management includes Outpatient Nutrition Care, Inpatient Nutrition Care, Food Administration, Research, and Development. Inpatient nutrition services start from nutrition assessment, nutrition diagnosis, nutrition intervention including planning, feeding, and nutrition counseling to nutrition monitoring and evaluation (Kemenkes RI, 2013).

Improvement of meal presentation at a hospital setting can increase food intake, reduce waste food substantially and reduce readmission rate to hospital. (Navarro et al., 2016). Not all hospitals can implement food services with a systems approach, due to limited resources, especially in type C and D hospitals (Bakri et al., 2018). To increase the food intake and at the same time reduce food waste, it is necessary to modify the taste and appearance of food. Taste modification can be done through adding spices, coloring, and replacing or adding food ingredients. Appearance modification of the food by changing food ingredients, shape, cooking techniques, serving utensils (Wayansari, et al., 2018).

Based on preliminary research conducted at Harapan Insani Hospital, of all the menus served, the most leftover food was fish-based dinner menus as much as 36.7%. This is because the patient has difficulty swallowing or is afraid of choking on the fishbone. In addition, the food presentation is less attractive. Based on this background, the researchers studied the effect of food presentation and ingredient modification of fish-based dishes on food leftovers at Harapan Insani Medical Center Hospital.

Harapan Insani Medical Center Hospital (previously a clinic), is located in Pangkalan Bun, Kotawaringin Barat Regency, Central Kalimantan Province, Indonesia. It was established in September 2020 and now is classified as a type D hospital. The bed capacity is 20 with an average number of patients 15-20 people per day (before the Covid pandemic). The food management system at Harapan Insani Hospital uses a 10-day cycle menu, where cycle changes are carried out annually.

This research was conducted in October 2020 with a total number of patients in the Sapphire, Emerald, and Amethyst rooms as many as 8 people. With a purposive sampling technique, a sample of 5 people was determined. The inclusion criteria included being hospitalized for at least 2 days, 18 years old, willingness to be a respondent and a good level of awareness. While the exclusion criteria were patients with Nasogastric Tube and pregnant women with Hyperemesis gravidarum

Table 1 shows the Food Preparation served at the observed hospital. The dish served before modification named Ikan Nila Lepah Timun was processed using a typical recipe from the Kotawaringin Barat district. In this dish, the Nile Tilapia is processed with herbs and cucumber vegetables, with presentation following Figure 1.a. According to previous studies, the remaining food from this menu was 55%. Patients claim that the menu is often consumed at home, so they feel bored. Another patient admitted that it was difficult to separate the fish meat from the bones, which made them lazy to finish this meal. Therefore, the researchers attempted to modify the menu by grinding fish meat and mixing it with additional seasonings shows at Table 1.b. This dish was served in a bowl made from banana leaves, and is called Ikan Mangkukan and be served as Figure 1.b.

Table 1. Food preparation at Harapan Insani Medical Center Hospital before and after modification

<i>Nila Lepah Timun Fish (Before Modification)</i> (a)	<i>Ikan Mangkukan (After modification)</i> (b)
	
	
	



(a)

(b)

Figure 1. Food presentation of (a) before modification – Nila Lepah Timun Fish and (b) after modification – Ikan Mangkukkan

The main spices used include shallots, garlic, lemongrass, turmeric, candlenut, ginger, galangal, pepper, salt, and sugar, following different other ingredients as showing at Table 2. In this essay we also provide the cooking steps and the ware used to cook the both version of foods, before and after modification (refers to Table 3). From our study, we found that, once Ikan Mangkukkan was served, there was no food left. In other words, the patient likes this food modification. The tolerance limit for hospital leftovers is $\leq 20\%$ (Rotua et al., 2018). Thus, it can be concluded that modification of food presentation and ingredients positively affects patient acceptance and minimizes the leftovers at Harapan Insani Medical Center Hospital.

Table 2. Food Ingredient used in this study

Nila Lepah Timun Fish (Before Modification) (a)		Ikan Mangkukkan (After modification) (b)	
Ingredients	Amount	Ingredients	Amount
Nile tilapia	500 g	Nile tilapia (minced)	500 g
Cucumber	250 g	Pumpkin	250 g
Tomato	250 g	Egg	55 g
Lime juice	1 tablespoon		
Cooking oil	25 g	Banana leaves (as a bowl)	5 leaves
Water	800 ml		
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Spices	Amount	Spices	Amount
Garlic	15 g	Garlic	15 g
Shallots	15 g	Lime leaves	1 g
Candlenut	15 g	Fiber creme	50 g
Turmeric	10 g	Turmeric	10 g
Ginger	10 g	Salt	15 g
Gallangal	5 g	Ground pepper	1 g
Salt	15 g	Coriander powder	2 g
Ground pepper	1 g		
Coriander powder	2 g		

Table 3. Cooking wares and Cooking steps to prepare and present the food

Nila Lepah Timun Fish (Before Modification) (a)	Ikan Mangkukan (After modification) (b)
Cooking wares	Cooking wares
Food processor	Food processor
Bowl	Bowl
Knife	Knife
Chopping board	Chopping board
Digital kitchen scales	Digital kitchen scales
Stove	Stove
Frying pan	Steam pan
Wooden spatula	Wooden spatula
Measuring cup	Measuring cup
Bowl	Scissors
	Plates
	Grater
Cooking steps	Cooking steps
1. Clean 5 pieces or 500 grams of tilapia, give a squeeze of lemon juice	1. Grind the Nile Tilapia fillets in a food processor
2. Grind all the spices using a food processor	2. Grind all the spices using a food processor
3. Peel and clean cucumber, weigh 250 g, then cut lengthwise. Weigh 250 g of red tomatoes, clean, and cut into pieces	3. Mix the minced fish and ground spices, add fiber cream powder, and egg
4. Saute the spices with cooking oil	4. Grate 250 g of pumpkin. Set aside 50 g of pumpkin shavings for garnish
5. Add 800 ml of water along with the tilapia pieces	5. Put the grated pumpkin into the fish mixture, mix well with the spices.
6. Cook for 15 minutes	6. Put in a bowl of banana leaves, spread out the dough, sprinkle the pumpkin shavings on top
7. Add the cucumber and red tomatoes	7. Steam for 30 minutes, remove from heat, and serve.
8. Once cooked, remove from heat and serve with a sprinkling of fried onions.	

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Cite this article as:

Dhini D & Astrianoor M. The effect of food presentation and ingredients modifications on patient's leftovers at Harapan Insani Medical Center Hospital. *GHMJ (Global Health Management Journal)*. 2022; 5(1):32-35.
[doi:10.35898/ghmj-51596](https://doi.org/10.35898/ghmj-51596)