

Education and socialization of fast food negative impacts in preventing dysmenorrhea on adult women at Prof. Dr. Chairuddin P. Lubis Hospital, Medan, North Sumatra community

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ABSTRACT

Dysmenorrhea is a burden on women's health in the world due to its high prevalence. Dysmenorrhea is often associated with several risk factors, one of which is eating habits. The consumption of fast food, which has become a habit of people in the era of globalization, is reported to affect the incidence and intensity of dysmenorrhea. This Community Service aims to socialize the composition and nutritional value of healthy food, the composition and nutritional value of fast food, dysmenorrhea and how it affects daily life as well as the effect of excessive consumption of fast food on dysmenorrhea in the community which was carried out at Prof. Dr. Chairuddin P. Lubis Hospital, Medan, North Sumatra. This community service activity consists of two stages, namely providing education in the form of posters containing material and questions and answers or discussions on related health topics, then handing over the material to the community to be able to practice the knowledge gained so that people's knowledge increases and can be applied to daily life, with the hope that in the future dysmenorrhea disorders caused by excessive fast food intake which causes limitations in carrying out daily activities can be avoided and no longer become one of the largest contributors to health problems in the world and no longer a burden to women's health in the world.

Keyword: Dysmenorrhea, Fast Food, Menstrual Cramps, Period Pain

ABSTRAK

Dismenore menjadi beban kesehatan wanita di dunia karena prevalensinya yang tinggi. Dismenore sering dikaitkan dengan beberapa faktor risiko, salah satunya ialah kebiasaan makan. Konsumsi fast food yang telah menjadi kebiasaan masyarakat di era globalisasi dilaporkan mempengaruhi kejadian serta intensitas dismenore. Pengabdian Masyarakat ini bertujuan untuk mensosialisasikan komposisi dan nilai nutrisi dari makanan sehat, komposisi dan nilai nutrisi dari fast food, dismenore dan bagaimana pengaruhnya terhadap kehidupan sehari-hari serta pengaruh konsumsi fast food yang berlebihan terhadap dismenore pada masyarakat yang dilakukan di Rumah Sakit Prof. Dr. Chairuddin P. Lubis, Medan, Sumatera Utara. Kegiatan pengabdian masyarakat ini terdiri dari dua tahapan yaitu pemberian edukasi dalam bentuk poster yang berisi materi dan tanya jawab atau diskusi mengenai topik kesehatan yang terkait, kemudian menyerahkan materi kepada masyarakat untuk dapat dipraktikkan ilmu yang didapat sehingga pengetahuan masyarakat bertambah dan dapat diterapkan pada kehidupan sehari-hari, dengan harapan kedepannya gangguan dismenore yang disebabkan oleh asupan fast food yang berlebihan yang menyebabkan keterbatasan dalam melakukan kegiatan sehari-hari dapat dihindari dan tidak lagi menjadi salah satu penyumbang masalah kesehatan terbesar di dunia dan tidak lagi menjadi beban bagi kesehatan wanita di dunia.

Keyword: Dismenore, Makanan cepat saji, Nyeri Haid, Nyeri Menstruasi



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1. Introduction

The term fast food first appeared in 1951 and refers to any type of food that can be processed, canned, frozen, practical and can be served quickly. The definition of fast food also refers to food that has previously been heated or cooked in the form of packaging that can be found in restaurants or stores. Fast food is food with low levels of fat, fiber and micronutrients as well as high levels of saturated fat, sugar, and calories. Currently, the consumption of fast food has become a habit of people in the era of globalization because of its nature that is easy to obtain and can be served quickly [1],[2].

The results of a study conducted on adolescents aged 12-15 years in 54 low- and middle-income countries showed that the highest prevalence of fast food consumption was in the Southeast Asian region, which was 17.7% with a frequency of 4-7 days a week. In the capital of Indonesia, there are 60.27% of the population over the age of 3 years consuming instant food 1-6 times per week and 6.32% consuming it more than 1 time per day and in North Sumatra there are 69.6% of students of the Faculty of Medicine, University of North Sumatra who consume fast food in the frequent category [3]. More than 50% of women in the world experience dysmenorrhea, making this one of the biggest problems and a burden on women's health in the world [9]. In Asia, dysmenorrhea affects approximately 84.2% women, with primary dysmenorrhea rates of 69.4% in Malaysia, 84.2% in Thailand, and 65% in Indonesia [11]. Women who suffer from dysmenorrhea, there is an excessive accumulation of prostaglandins and the uterus becomes hypersensitive to prostaglandins so that contractions increase [12].

This community service is carried out at Prof. Dr. Chairuddin P. Lubis, Medan, Sumatera Utara Hospital where the target is 50 adult women who accompany their families to seek medical treatment, because most of the patients escorts are adult women and because of their task to escort the family member who is sick so they need to efficient their time including their time to eat, they need food that can be served quickly and easy to find and the hospital is surrounded by fast food restaurants that is why we choose this community to do the community service. As described above, the consumption of fast food has become a habit of people in the era of globalization because of its nature that is easy to obtain and can be served quickly and fast food consumption is also related to disruption of nutritional status as a risk factor for primary dysmenorrhea. Consumption of fast food has an effect on the increase in the prostaglandin cascade so that hypertonus and myometrium vasoconstriction can occur which contribute to the incidence of ischemia and trigger dysmenorrhea. Fast food consumption is also related to disruption of nutritional status as a risk factor for primary dysmenorrhea.

The unbalanced nutritional content of fast food causes excessive consumption of it increases a risk of diseases, such as malnutrition, diabetes, loss of muscle mass, heart disease, hypertension, depression, obesity, and menstrual disorders. High levels of saturated fat in fast food can increase levels of low density lipoprotein (LDL) which is a biomarker for cardiovascular disease risk. It also causes reduced levels of high density lipoprotein (HDL) which works to clear cholesterol from arteries and carry it to the liver for secretion into the bile. In addition, high LDL levels and low HDL levels can also damage the cells lining blood vessels causing inflammation and blockage of blood vessels and even heart attacks. [4],[5].

Fast food has an imbalanced nutritional content with high calories, sugar, fat and low fiber. The high content of fatty acids can interfere with progesterone metabolism during the luteal phase so that resulting in an increase of prostaglandin levels and dysmenorrhea. The most common menstrual disorder is dysmenorrhea, which is menstrual pain experienced by women for about 1-2 days during menstruation caused by the release of prostaglandins. It is pain due to uterine contractions, both before and during menstruation, with clinical symptoms including lower abdominal pain, can radiate to the thighs and back, can be accompanied by complaints of vomiting, headache, diarrhea and irritability and can affect daily activities [6],[7]. Dysmenorrhea becomes a significant women's health burden in the world due to its high prevalence [8] More than 50% of women in the world experience dysmenorrhea, making this one of the biggest problems and a burden on women's health in the world [9]. In France, dysmenorrhea prevalence in adolescents with an average age of 16.9 was 92.9% with 8.9% described as severe pain that significantly affected quality of life [10]. In Asia, dysmenorrhea affects approximately 84.2% women, with primary dysmenorrhea rates of 69.4% in Malaysia, 84.2% in Thailand, and 65% in Indonesia [11].

Women who suffer from dysmenorrhea, there is an excessive accumulation of prostaglandins and the uterus becomes hypersensitive to prostaglandins so that contractions increase [12]. The incidence of primary dysmenorrhea is often associated with several risk factors, namely biological, psychological, social, and

lifestyle factors. One of the lifestyle factors included is eating habits. Consumption of fast food has an effect on the increase in the prostaglandin cascade so that hypertonus and myometrium vasoconstriction can occur which contribute to the incidence of ischemia and trigger dysmenorrhea. Fast food consumption is also related to disruption of nutritional status as a risk factor for primary dysmenorrhea [13]. This shows that the more often fast food is consumed, the higher the prostaglandins in the body, causing dysmenorrhea [12].

This Community Service aims to socialize the composition and nutritional value of healthy food, the composition and nutritional value of fast food, dysmenorrhea and how it affects daily life as well as the effect of excessive consumption of fast food on dysmenorrhea in the community.

2. Methods

This community service is carried out at Prof. Dr. Chairuddin P. Lubis, Medan, Sumatera Utara together with several students as assistants. As the problems that have been described above, the community service program that we carry out is education about the composition and nutritional value of healthy food, the composition and nutritional value content of fast food, dysmenorrhea, the dangers of excessive consumption of fast food and socialization of the relationship between excessive consumption of fast food and dysmenorrhea and how dysmenorrhea effects daily life. Before we carry out the community service we coordinate with person in charge in clinic such as the doctors, nurses and administrative staffs to decide the time and the exact place where we can do the counseling then we prepare the education material such as posters containing things that we want to convey that we have studied and adopted from various articles (Figure 1 and Figure 2).

Some of the things conveyed include that the consumption of fast food is at risk of weight gain, poor diet quality and mortality. Weight gain due to the consumption of certain types of fast food can affect a person's body mass index (BMI) to the point that they may experience overweight or obesity. This will be a risk for various chronic diseases, cancer, cardiovascular diseases, as well as increasing the risk of death. High levels of saturated fat in fast food can increase levels of low-density lipoprotein (LDL) which is a biomarker for cardiovascular disease risk. It also causes reduced levels of high-density lipoprotein (HDL) which works to clear cholesterol from arteries and carry it to the liver for secretion into the bile. In addition, high LDL levels and low HDL levels can also damage the cells lining blood vessels causing inflammation and blockage of blood vessels and even heart attacks.






















Buah	Kaya akan Kandungan	Sayur	Kaya akan Kandungan	Daging	Kaya akan Kandungan
 Jeruk	Vit C + Vit E	 Bayam	Zat Besi	 Iga Sapi	B12 + Kalsium + Protein
 Apel	Vit A	 Kangkung	Zat Besi	 Iga Kambing	B12 + Kalsium + Protein
 Jambua Biji	Vit C	 Daun Singkong	Zat Besi	 Daging Sapi, Kambing, Ayam	B12 + Kalsium + Protein + Zinc + Selerium
 Bua Naga	Vit A	 Kacang-kacangan	Vit A + Zat Besi	 Susu	Vit B + Cyanocobalamin
 Mangga	Vit C	 Tomat	Vit A + Vit E	 Telur	Vit B + Cyanocobalamin + Vit D
 Lemon	Vit C + Vit E	 Brokoli	Zat Besi + Vit E	 Ikan Air Tawar	Omega + Protein + Vit D
 Kiwi	Vit C + Vit E	 Wortel	Vit A	 Ikan Air Laut	Omega + Protein + Vit D

Figure 1. Nutritional content in healthy food.

It was also conveyed that Fast food has an unbalanced nutritional content with high calories, sugar, fat and low fiber. High fatty acid content can interfere with progesterone metabolism during the luteal phase, resulting in an increase in prostaglandin levels and dysmenorrhea. Prostaglandins are formed by fatty acids in the body. After the ovulation process, fatty acids will accumulate on the phospholipids of the cell membrane. A decrease in progesterone levels before menstruation will trigger the release of arachidonic acid, which is classified as a fatty acid, and then a series of reactions occur that turn it into prostaglandins and result in dysmenorrhea. This shows that the more frequent the consumption of fast food, the higher the prostaglandins in the body and this causes dysmenorrhea, The consumption of fast food is also related to the disruption of nutritional status as a risk factor for primary dysmenorrhea. So we also convey that excessive consumption of fast food affects the incidence of dysmenorrhea it is hoped that it can increase public understanding of healthy food lifestyles and consumption patterns and can practice them In daily life so that dysmenorrhea disorders caused by excessive consumption of fast food can be avoided and it is hoped that in the future dysmenorrhea due to excessive consumption of fast food will no longer be one of the biggest contributors to problems and will no longer be a burden on women's health in the world. There was no evaluation.



Figure 2. Nutritional content in fast food.

3. Results and Discussion

This community service activity, carried out in two major stages, which are, preparation of educational materials that will be provided by poster regarding the composition and nutritional value content of healthy food, the composition and nutritional value content of fast food, dysmenorrhea, the dangers of excessive consumption of fast food and socialization of the relationship between excessive consumption of fast food and dysmenorrhea and how dysmenorrhea effects daily life.

Education conducted with discussion methods and also questions and answers to participants. The community can immediately ask about what they want to know or what they still did not understand from the material provided, then the social service team immediately provides the answer and at the end of the meeting the team will give some questions about the things that have been conveyed to test whether they already have a good enough understanding about the educational materials that have been conveyed.

The methods carried out in the implementation of this service are education provided by giving lectures and also questions and answers or discussions on health topics includes the composition and nutritional value content of healthy food, the composition and nutritional value content of fast food, dysmenorrhea, the dangers of excessive consumption of fast food and socialization of the relationship between excessive consumption of

fast food and dysmenorrhea and how dysmenorrhea effects daily life. First of all, we recorded the characteristic of 50 adult women who were targeted for community service, then we also recorded how often they consume fastfood and the intensity of dysmenorrhea if any.

Table 1. Characteristics of targeted community service.

	Frequency (n=115)	Percentage (%)
Age		
20-25	4	8
26-30	6	12
31-35	10	20
36-40	20	40
41-45	10	20
Menarche Age		
10	3	6
11	10	20
12	6	12
13	11	22
14	10	20
15	7	14
16	3	6
Duration of Menstruation		
<7 days	42	84
>7 days	8	16
Family History of Dysmenorrhea		
Yes	33	66
No	17	14

Table 2. Distribution of fast food consumption frequency.

Fast Food Consumption Frequency	Frequency	Percentage (%)
Rare	27	54
Frequent	23	46
Total	50	100

It is obtained that there are more samples who rarely consume fast food (54%) compared to those who frequently do (46%).

Table 3. Distribution of dysmenorrhea intensity.

Dysmenorrhea Intensity	Frequency	Percentage (%)
Mild Dysmenorrhea	22	44
Moderate Dysmenorrhea	22	44
Severe Dysmenorrhea	6	12
Total	50	100

There are 22 samples who experience mild dysmenorrhea (44%), 22 who experience moderate dysmenorrhea (44%) and 6 who experience severe dysmenorrhea (12%).

After obtaining the data above, we conducted education about the nutritional content and dangers of fast food both againts dysmenorrhea and other diseases and the nutritional content contained in heathy foods and their benefits.

In the counseling, it was also informed about how dysmenorrhea can affect daily life such as affecting study concentration, limitations in carrying out daily activities and increasing stress levels. In terms of providing this

education, we do it in two directions, starting with the lecturers involved in this activity, then handing it over to the community to be able to practice the knowledge they get, so they can apply the knowledge they get in their daily life.

At the end of the meeting the team gave some questions about the things that have been conveyed to test whether the community already have a good enough understanding about the educational materials that have been conveyed and the results are as shown in the table below,

Table 4. Distribution of community knowledge.

Community Knowledge	Frequency	Percentage (%)
Bad	0	0
Good	32	64
Very good	18	16
Total	50	100

There are 0 women who has bad knowledge (0%), 32 who has good knowledge (64%) and 18 who has very good knowledge (12%).

It is not only the ability to give the team the right answer of any questions that have been given to the community but the most important thing for the community is to understand that healthy foods are easy to find and cheap as well and local foods that are easy to find such as fried foods or even traditional cakes are also considered as fast food and what the community has to know the most is the nutritional content of fast food that can be the major cause of dysmenorrhea which is high content of fatty acids that interfere with progesterone metabolism during the luteal phase so that resulting in an increase of prostaglandin levels and dysmenorrhea.

This community service is carried out at Prof. Dr. Chairuddin P. Lubis, Medan, Sumatera Utara Hospital where the target is 50 adult women who seek treatment there or families who take patients to treatment. we can see the picture on the bellow.

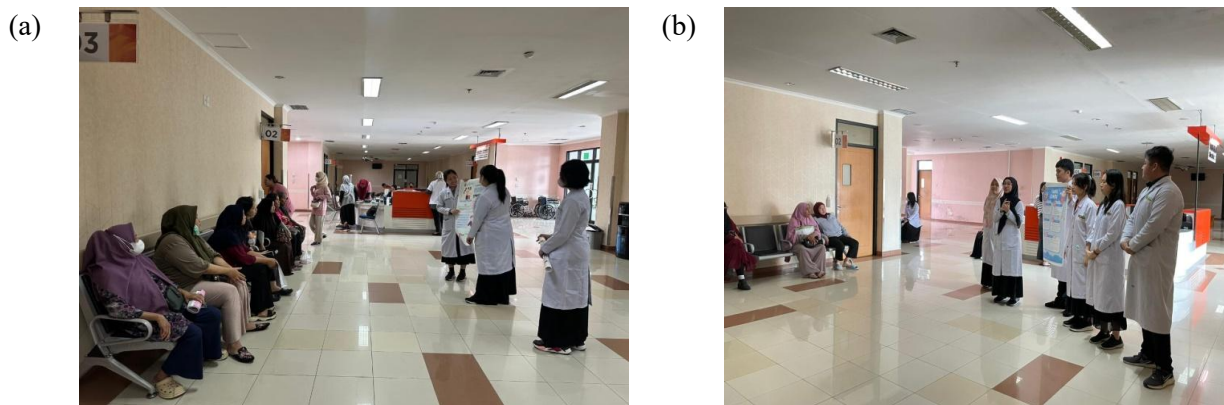


Figure 3. (a) Service preparation, (b) Education of fast food nutritional content.

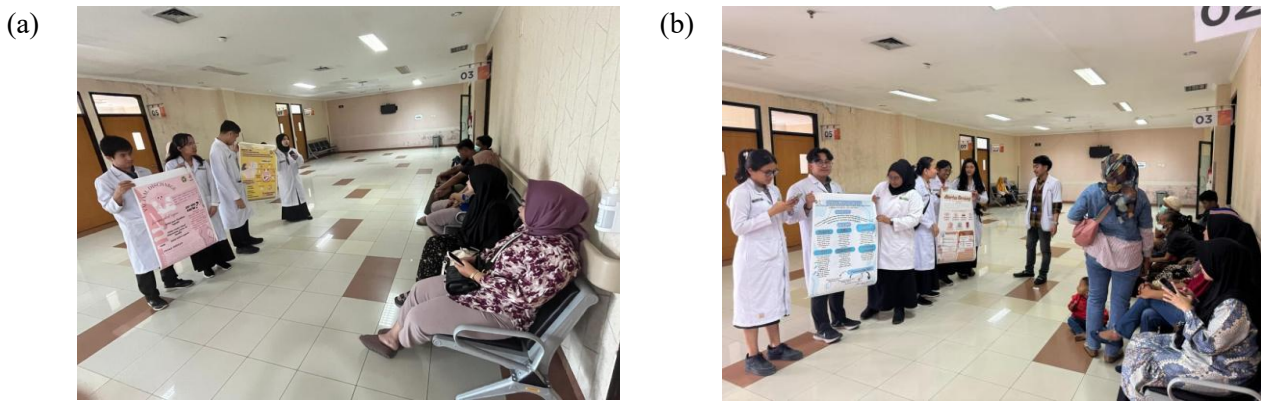


Figure 4. (a) Education of healthy food nutritional content, (b) Question and Answers.

4. Conclusions

It is obtained that there are more women who rarely consume fast food (54%) compared to those who frequently do (46%). There are 22 women who experience mild dysmenorrhea (44%), 22 who experience moderate dysmenorrhea (44%) and 6 who experience severe dysmenorrhea (12%). After given education the results, There are 0 women who has bad knowledge (0%), 32 who has good knowledge (64%) and 18 who has very good knowledge (12%). We Believe that the activities we carried out increase the community's understanding and knowledge of nutritional content and value of fast food, healthy food and the effect of excessive fast food consumption and it is hoped that the education materials given can be accepted and applied in daily life so that the dysmenorrhea also any other diseases can be prevented, and excessive consumption of fast food will no longer be one of the biggest contributors to problems and will no longer be a burden on women's health in the world.

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