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Exploration of The Knowledge and Lifestyles of Obese Housewives in Sukamaju Village

Muhammad Akbar J.[1*], Asrini Safitri[2], Rezky Putri Pratiwi L Basri[3], Hermiaty Nasruddin[4], Nesyana Nurmadilla[2]

[1]Medical Education, Faculty of Medicine, Universitas Muslim Indonesia, Makassar,Indonesia
[2]Department of Nutrition, Faculty of Medicine, Faculty of Medicine, Universitas Muslim Indonesia, Makassar, Indonesia
[3]Department of Histology, Faculty of Medicine, Faculty of Medicine, Universitas Muslim Indonesia, Makassar, Indonesia
[4]Department of Public Health and Community Medicine, Faculty of Medicine, Faculty of Medicine, Universitas Muslim Indonesia, Makassar, Indonesia

*Corresponding Author. E-mail: akbarr.to@gmail.com Mobile number: +6285156908911

ABSTRACT

Introduction: Housewives exhibit a higher susceptibility to obesity compared to women employed in office settings or those who are students, primarily due to the increased time spent at home attending to childcare responsibilities. The incidence of obesity is more prevalent among boys than girls, a trend that inversely correlates with the age of entering adulthood. At this stage, women are more prone to obesity than men. Married women experience weight gain at nearly twice the rate of their unmarried counterparts. Data from the 2011 and 2015 National Health and Morbidity Surveys (NHMS) indicate that the prevalence of obesity is greater in women than in men. Furthermore, the average Body Mass Index (BMI) of housewives surpasses that of individuals in other occupations. Obesity occurs when energy intake exceeds energy expenditure, resulting in an energy imbalance and subsequent weight gain, with 60% to 80% of this increase typically comprising body fat mass.
Methods: This quantitative study employed an observational design, utilizing univariate and bivariate analysis with the chi-square test for data analysis. The sampling technique implemented was simple random sampling.
Result: A significant association was identified between knowledge and obesity (p = 0.028). Additionally, a relationship between lifestyle and obesity was observed, with a p-value of 0.035.
Conclusion: A significant correlation exists between knowledge, lifestyle, and obesity among housewives.

Keywords: Knowledge; lifestyle; housewife; obesity

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Address:
Jl. Urip Sumoharjo Km. 5, Makassar
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Email: greenmedicaljournal@umi.ac.id

Introduction

Housewives are more susceptible to obesity than women who work in offices or are students because housewive spend more time at home taking care of their children[1]. The prevalence of obesity in boys was higher than that in girls. This is inversely proportional to the age of entering adulthood. At this age, women are more likely to be obese than men. Married women gain weight almost twice as much as unmarried women[2].

Obesity can occur when energy intake exceeds energy expenditure, causing an energy imbalance and impacting body weight, of which 60% to 80% is usually body fat mass[3]. The World Health Organization (WHO) defines obesity and excess weight as abnormalities or accumulation of excess fat that can endanger health. The body's metabolic processes produce energy that is greater than the calorie release[4].

One of the nutritional problems faced by Indonesia is obesity or being overweight. Obesity or being overweight is characterized by an excessive nutritional status[5]. One indicator for determining nutritional status is the Body Mass Index (BMI), which is a simple index of body weight according to height. BMI is calculated by dividing an individual's weight in kilograms by the square of their height in meters (kg/m2). If an adult's BMI is more than 25, they are considered overweight, and if the BMI is more than 30, they are considered obese(6). An increase in BMI causes obesity to develop into non-communicable diseases (NCDs) such as cardiovascular disease, diabetes mellitus, hypertension, etc.[7].

Results from the 2011 National Health and Morbidity (NHMS) and 2015 NHMS surveys showed that the prevalence of obesity in women was higher than that in men. In addition, the average Body Mass Index (BMI) of housewives is higher than that of other occupations[8].

Methods

This study used a quantitative research approach with an observational design and data analysis using univariate and bivariate analysis with the chi-square test. The sampling technique used was a simple random sampling technique. The sample size in this study was calculated using the Slovin formula.

Result

Table 1. Knowledge Frequency Distribution Results

Knowledge	Frequency	Percentage
Not enough	17	20.7
Currently	19	23.2
Good	46	56.1
Total	82	100

Based on the table above, information is obtained that out of 82 respondents used for research, on

knowledge, there are 17 respondents with a percentage of 20.7%, on moderate knowledge, there are 19 respondents with a percentage of 23.2%, and on good knowledge, there are 46 respondents with a percentage of 56.1%.

Table 2. Lifestyle Frequency Distribution Results

Lifestyle	Frequency	Percentage
Bad	61	74.4
Good	21	25.6
Total	82	100

Based on the table above, information was obtained that out of the 82 respondents used for the research, there were 61 respondents with a bad lifestyle, with a percentage of 74.4%, and with a good lifestyle, there were 21 respondents, with a percentage of 25.6%.

Table 3. Obesity Frequency Distribution Results

Obesity	Frequency	Percentage
Obesity 1	27	32.9
Obesity 2	55	67.1
Total	82	100

Based on the table above, information was obtained that out of 82 respondents used for the research, there were 27 respondents with obesity criteria 1 with a percentage of 32.9%, and there were 55 respondents with obesity criteria 2 with a percentage of 67.1%.

Table 4. Relationship between knowledge and obesity

Knowledge		Obesity		Total	P-Value
		Obesity 1	Obesity 2		
Not enough	n	5	12	17	0.028
	%	29.4%	70.6%	100.0 %	
Currently	n	11	8	19	
	%	57.9%	42.1%	100.0 %	
Good	n	11	35	46	
	%	23.9%	76.1%	100.0 %	
Total	n	27	55	82	

	%	32.9%	67.1%	100.0 %

Based on the table above, information was obtained that 17 respondents had less knowledge, with 5 respondents having obesity criteria 1 (29.4%) and 12 respondents having obesity criteria 2 (70.6%). Of the respondents with moderate knowledge, there were 19 respondents with details of 11 respondents having obesity criteria 1 with a percentage of 57.9% and 8 respondents having obesity criteria 2 with a percentage of 42.1%. There were 46 respondents with details of 11 respondents having obesity criteria 1 (23.9%) and 35 respondents having obesity criteria 2 (76.1%). The p-value obtained was 0.028.

Table 5. Relationship between lifestyle and obesity

Lifestyle		Obesity		Total	P-Value
		Obesity 1	Obesity 2		
Bad	n	24	37	61	0.035
	%	39.3%	60.7%	100.0 %	
Good	n	3	18	21	
	%	14.3%	85.7%	100.0 %	
Total	n	27	55	82	
	%	32.9%	67.1%	100.0 %	

Based on the table above, information was obtained that 61 respondents had bad lifestyles, with 24 respondents having obesity criteria 1 (34.3%) and 37 respondents having obesity criteria 2 (60.7%). With a good lifestyle, there were 21 respondents, with 3 respondents having obesity criteria 1 (14.3%) and 18 respondents having obesity criteria 2 (85.7%). The obtained p-value was 0.035.

Discussion

Relationship between Knowledge and Obesity

This study was found that 17 respondents had insufficient knowledge, with 5 respondents having obesity criteria 1 and 12 respondents having obesity criteria 2. Of the respondents with moderate knowledge, there were 19 respondents with details of 11 respondents having obesity criteria 1 and 8 respondents having obesity criteria 2. There were 46 respondents with details of 11 respondents having obesity criteria 1 and 35 respondents having obesity criteria 2. This means there is a relationship between knowledge and obesity

Respondents with good knowledge were 46, with 11 respondents with obesity 1 and 35 respondents with obesity 2. Even though they have good knowledge, there are still many respondents who are obese. This is caused by internal and external factors. Internal factors include nutritional awareness. Even though respondents had good knowledge regarding obesity, if this knowledge is not implemented, it will cause the body to become obese; therefore, knowledge is not the main trigger of obesity. External factors are the questionnaire in the study, where the questionnaire only consists of 12 questions and are simple questions related to obesity, so it does not rule out the possibility that respondents in this study could answer well.

Knowledge is one component that can influence a person's lifestyle. People with limited knowledge, especially about nutritional issues, tend to lead unhealthy lifestyles and eating patterns, and vice versa. Consuming staple foods that are high in carbohydrates, if not accompanied by sufficient physical activity, can increase the risk of obesity[9].

Everyone has different levels of knowledge; some are good, and some are lacking. According to Notoatmodjo, the following factors influence a person's knowledge: experience (can be obtained from one's own or other people's experience), level of education (can be a person's insight or knowledge), and information sources (such as the Internet, television, radio, newspapers, books, magazines, and books)[10].

Apart from knowledge, nutrition awareness also has an influence on food choices. Nutritional awareness is a person's knowledge of the importance of consuming healthy and balanced food, food that is safe to consume, how to process food well, and how to live a healthy life[11].

This research is in line with Jaminah and Mahmudiono in 2018, who stated that there is a significant relationship between knowledge and the incidence of obesity with a value of p = 0.03(9). Similar results were obtained by Mega Prima Pertiwi in 2022, which stated that there was a relationship between knowledge and central obesity with a value of p = 0.026[12].

Relationship between lifestyle and obesity

In this study, respondents were obtainedThere were 61 respondents had a bad lifestyle, 24 respondents included obesity criteria 1,, and 37 respondents included obesity criteria 2. There were 21 respondents with good lifestyles, with criteria 3 respondents with obesity 1 and 18 respondents with obesity 2.

There were 21 respondents with a good lifestyle, with the criteria being three obese 1 respondents and 18 obese 2 respondents. Even though they had a good lifestyle, there were still many obese respondents. This is caused by both internal and external factors. Internal factors, namely changes in the estrogen hormone, a decrease in the estrogen hormone in women entering the pre-menopausal phase, triggers an increase in body weight due to lipogenesis. The external factor is the honesty of the respondents in answering the questionnaire.

Unhealthy lifestyles, especially dietary and physical activity patterns, can also cause obesity. A diet with excessive intake and sedentary physical activity can increase the risk of obesity because energy expenditure is not balanced with energy intake, thus causing excess body weight. Lifestyles are divided into positive and negative lifestyles. A negative lifestyle indicates a poor diet and low physical activity. A poor diet was defined as the habit of consuming sweet foods and drinks, fried foods, instant noodles, and snacks, not eating on time, and rarely consuming vegetables, fruit, and breakfast. Low physical activity patterns indicate a habit of infrequent exercise and sedentary lifestyle behaviors [(13)].

In addition to an unhealthy lifestyle, hormonal changes can cause obesity. A decrease in the hormone estrogen affects the enzyme lipoprotein lipase, which reduces the amount of lipoprotein produced in the intestines and liver. This will affect lipid metabolism, decrease free fatty acid flux and fatty acid oxidation, and increase the incorporation of fatty acids into triglycerides. Women experience increased body weight and obesity due to increased fat synthesis or lipogenesis, resulting in increased Fat Mass (FM)[(14)].

The results of this research are in line with Rika Kurniagustina in 2018, who stated that there is a relationship between diet and physical activity and obesity in class V children at SDN 01 Kalisari, East Jakarta with a value of p = 0.033 and 0.013(15). The same results were also obtained by Ria Ramadani Wansyaputri in 2021, who stated that there was a significant relationship between diet and obesity with a value of p = 0.013, physical activity and the incidence of obesity with a value of p = 0.020[(16)].

Conclusion

There was a significant relationship between knowledge and obesity and lifestyle and obesity, with p-values of 0.028 and 0.035, respectively, according to the existing theory. However, the research results show that respondents who have good knowledge are still obese and a good lifestyle are still obese. Therefore, further research is required to produce more accurate findings. Socialization can be provided in the form of counseling, posters, and videos related to obesity.

Conflicts of Interest

The author declares that there is no conflict of interest in the conduct and preparation of this study. This research was carried out independently, without any personal or institutional interests that could have influenced the research process, including data collection, analysis, and interpretation of the findings.

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