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Knowledge And Perception Of Housewives On Vegetable Consumption In The Fulfillment Of Healthy Life River Bridge And Urban Region In Kabupaten Banjar

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Abstract. *This study aims as follows, namely: (1) to analyze the level of knowledge and perceptions of housewives on vegetable consumption in fulfilling a healthy life in riverside and urban areas in Kabupaten Banjar; (2) Analyzing differences in the level of knowledge and perceptions between riverside and urban areas in Kabupaten Banjar on vegetable consumption in fulfilling a healthy life; (3) Analyzing factors related to vegetable consumption in fulfilling healthy living in riverside and urban areas in Kabupaten Banjar y. The number of samples are 60 respondents. Samples were taken by simple random sampling which each of riverside and urban areas were taken 30 respondents. The analysis used to answer the first objective is descriptive analysis and Likert scale analysis. To answer the second objective, the analysis of the t-test was used. Then to answer the third objective, bivariate analysis with chi-square test was used. The distribution of the knowledge level score of housewives in the riverside area in the medium category is 87% and the high category is 13%. For urban areas, the score distribution for the medium category is 53% and the high category is 47%. . The distribution of the perception level score of housewives in the riverside area in the medium category is 73% and the high category is 27%. For urban areas, the score distribution for the medium category is 56% and the high category is 44%. The differential test for knowledge level, the value of Sig. (2-tailed) of 0.003 <0.05 and for perception level of the value of Sig. (2-tailed) is 0.010 < 0.05. So it can be concluded that there are differences in the knowledge level and perceptions level of vegetable consumption in fulfilling a healthy life between urban areas and riverside areas. From the results of the chi-square analysis, it was shown that only family income and residence variables had a significant relationship because the p-value <0.05. For the income variable, the p-value is 0.041 < 0.05 and the residence variable is 0.000 < 0.05.*

Keywords*: Knowledge, Perception, consumption, vegetables, riverside, urban*

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I. PRELIMINARY

Consumption of vegetables and fruit is needed by the body as a source of vitamins, minerals and fiber in achieving a healthy diet according to the recommended balanced nutrition guidelines for optimal health. Some of the vitamins and minerals contained in vegetables and fruit have a function as antioxidants so that they can reduce the incidence of non-communicable diseases related to nutrition, as a result of excess or lack of nutrition (Ministry of Health, 2014). Consumption of fruit and vegetables has a relationship with the incidence of hypertension, this happens because most of the fiber intake in a day is not fulfilled. High intake of fiber, especially in the form of soluble fiber, is associated with the prevention of hypertension. If fiber intake is low, it can cause obesity which has an impact on increasing blood pressure and degenerative diseases (Suryani, et al, 2020).

According to the Ministry of Health, there are 10 indicators of Clean and Healthy Life Behavior (PHBS), namely (1) Childbirth assisted by health workers; (2) exclusive breastfeeding; (3) Weighing infants and toddlers periodically; (4) Wash hands with soap and clean water; (5) Using clean water; (6) Using healthy latrines; (7) Eradicating mosquito larvae; (8) Consumption of fruit and vegetables; (9) Doing physical activity every day; (10) Do not smoke in the house. In a healthy lifestyle, vegetable consumption is one of the indicators. The government also has an education program on the importance of consuming vegetables and fruit through the ministry of health, namely the Healthy Living Community Movement (Germas) and the Healthy Family Program. The program also emphasized the importance of consuming vegetables.

The Central Statistics Agency released the results of the 2020 National Socio-Economic Survey (Susenas). Susesnas was conducted by conducting surveys in 34 provinces in Indonesia. One of the surveys is related to the average monthly expenditure of Indonesians to buy fruits and vegetables. According to BPS,

national consumption of vegetables per capita per day is 128.34 grams per capita per day. This number is still far from the threshold set by WHO and the Ministry of Health. WHO generally recommends the consumption of vegetables and fruits for a healthy life of 400 grams per person per day, consisting of 250 grams of vegetables (equivalent to 2 servings or 2 glasses of vegetables after cooking and draining) and 150 grams of fruit.

If viewed based on the provincial level, the highest per capita daily consumption of vegetables is in West Nusa Tenggara Province, which is 177.33 grams in 2019 and for 2020, Papua is 186.36 grams. While the lowest was in South Kalimantan Province in 2019 and 2020, which was 81.27 grams and 88.40 grams.

Vegetable consumption is also still very limited, dominated by spinach, kale, cassava leaves and eggplant. Even though there are still many types and varieties of vegetables so that the menu served at the dinner table is more diverse and varied. Of course this will encourage families, especially children, to consume more vegetables. The variety of vegetables supplied by farmers is far more than sufficient so as to ensure availability and affordability in the market, this should be a response for the community to start a healthy lifestyle.

The BPS data illustrates the poor paradigm of healthy living in Indonesia, especially in consuming vegetables to fulfill daily nutrition. Where South Kalimantan Province is the lowest province, which is only about 33% of what is recommended by WHO and the Ministry of Health. So it is necessary to pay attention and research the extent of knowledge and perceptions of the people of South Kalimantan Province about healthy living, especially in terms of consuming vegetables.

Kalimantan Province itself has many rivers, especially in Kabupaten Banjar, which is one of the largest regencies and its location is spread in almost part of South Kalimantan Province. Kabupaten Banjar also consists of 565,635 residents and is the second largest after Banjarmasin City. Kabupaten Banjar is an area that has many rivers, the Martapura River is one of the tributaries of the Barito River. Kecamatan Martapura Timur has 20 villages with 9 villages located on the banks of the river. Kecamatan Martapura is the most densely populated district in Kabupaten Banjar. Martapura District is also the center of the Kabupaten Banjar government, so that the livelihoods in Kecamatan Martapura are more diverse than other sub-districts.

Knowledge is an impression in human thought as a result of using the five senses. Basically, knowledge has 6 levels, namely 1) know, 2) understand, 3) application, 4) analysis, 5) synthesis, 6) evaluation. Perception is a sensing process. Perception is related to knowledge where knowledge is preceded to show perception. Knowledge and perception can affect a person's consumption because of the existing factors, both internal and external factors.

Consumption has a meaning as the expenditure of goods and services by households. Consumption is influenced by factors such as age, gender, education, income, occupation, experience, advertising/mass media, socio-political economy. Consumption of vegetables is very important because vegetables are a source of vitamins and minerals needed by the human body. In accordance with indicators of healthy living behavior (PHBS), one of which is regarding the consumption of fruits and vegetables.

The low level of vegetable consumption in South Kalimantan needs to be a concern for the health of the body, both in the short and long term. The efforts to increase awareness to consume vegetables are very important for the people of South Kalimantan, especially in Kabupaten Banjar, which is located in the riverside and urban areas.

II. METHOD

This research is implemented in Kecamatan Martapura Timur and Kecamatan Martapura, Kebupaten Banjar. The research location was chosen purposively (deliberately) because that location was relatively large in population compared to other sub-districts. This research was conducted from May to November 2021 starting from the preparation of proposals, data collection, data analysis and final research reporting.

The number of samples taken were 60 respondents. Samples were taken by simple random sampling which sub-district was taken as many as 30 respondents and the determination of respondents was random. The reason for choosing the research area in Kecamatan Martapura Timur is based on the topographical conditions of the area where most of the people live on riverside and Kecamatan Martapura is chosen because the district has the highest density in Kabupaten Banjar, as suitable as urban criteria.

There are two types of data in the study, secondary and primary data, which secondary data is from publications of related agencies, books, research reports and journals related to this research in order to enrich the discussion. Primary data comes from direct observation to the field and the results of interviews using a prepared questionnaire.

There are two categories of variables in this study, namely internal factors and external factors. Internal factors consist of (1) age (2) knowledge (3) perception. External factors consist of (1) education; (2) work; (3) family income; (4) residence (5) receive information.

The analysis used to answer the first objective is descriptive analysis and Likert scale analysis. To answer the second objective, the analysis of the t-test was used. Then to answer the third objective using bivariate analysis with Chi-Square test. Using Microsoft Excel and SPSS version 25 applications.

III. RESULTS AND DISCUSSION

3.1 Characteristics of Respondents

The description of the respondent's characteristics consists of the age of the housewife, the education level of the housewife, the occupation of the housewife, family income, food expenditure consisting of basic ingredients, prepared food/beverages, protein, fruits and tobacco or betel, as well as the number of respondent's family. The following describes the characteristics of each respondent.

Table 3.1. Distribution of respondent characteristics

Characteristics	Residence		n	%
	Riverside	Urban		
Housewife's age (years)				
<35 years old	9	9	18	30
35-50 years	14	18	32	53
>50 years	7	3	10	17
Amount	30	30	60	100
Housewife education				
Low (< SMA)	22	10	32	53
Height (≥ SMA)	8	20	28	47
Amount	30	30	60	100
Housewife work				
Does not work	24	18	42	70
Work	6	12	18	30
Amount	30	30	60	100
Family Income (Rp)				
Low (< 1,500,000)	9	1	10	17
Medium (1,500,000-3,000,000)	19	15	34	57
High (>3,000,000)	2	14	16	27
Amount	30	30	60	100
Family food expenditure (Rp)				
< 100,000	3	0	3	5
100,000-300,000	24	10	34	57
> 300,000	3	20	23	38
Amount	30	30	60	100
Number of family members (person)				
< 3	5	4	9	15
3-5	21	21	42	70
> 5	4	5	9	15
Amount	30	30	60	100
Receiving Information				
Never	13	4	17	28
Once	17	26	43	72
Amount	30	30	60	100

Characteristics of respondents for the age of housewives between riverside areas and urban areas are mostly in the age interval between 35-50 years and lessly at the age interval above 50 years. In terms of occupation, the majority of respondents in riverside areas do not work or are housewives, while in urban areas, most respondents are housewife but number of working mother ini significantly higher than in riverside.

For the education of respondents in riverside areas, the majority of respondents have education below high school only, while in urban areas the majority of respondents have education up to high school and above. This education affects respondents in obtaining information and processing information. Respondents with higher education know and are able to get good information including information about vegetables, while respondents with low education are usually less able to get accurate information about vegetables.

For the income of the respondent's family in riverside areas, majority is between Rp. 1,500,000-Rp. 3,000,000, while the respondents in urban areas majority is between Rp. 1,500,000-Rp. 3,000.00 but family that has family income more than Rp. 3,000,000 are significantly more than in riversude. Household expenditure on food per week in riverside areas is at most Rp. 100,000-Rp. 300,000 and in urban areas is at most Rp. 300,000 and above. The small food expenditure in the riverside areas is directly proportional to the family income which is also small and the majority of the work of housewives.

The number of household members is the total number of household members, but not including the head of the household. In general, the more members of the household, the more expenditures, especially food expenditures. The majority of respondents' family members in riverside and urban areas are 3-5 people. To receive information about vegetable consumption in fulfilling a healthy life in riverside areas, almost 50% of respondents have never received information, while for urban areas the most of respondent has received information..

3.2. Description of Respondents' Vegetable Consumption

The description of the respondent's vegetable consumption shows what vegetables are consumed the most and the amount of vegetable consumption per capita per day. For vegetables, the most consumed by respondents in riverside and urban areas were spinach, long beans and tomatoes. Meanwhile, tomatoes are mostly consumed in urban areas. For the most common spices, shallots, garlic and cayenne pepper are used every day for cooking. For the frequency of vegetable consumption in a week, the majority of households in riverside areas are 3-5 days a week and in urban areas, the majority are every day of the week.

Based on WHO, in general, it is recommended to consume vegetables and fruits for a healthy life of 400 grams per person per day, consisting of 250 grams of vegetables (equivalent to 2 servings or 2 glasses of vegetables after cooking and draining) and 150 grams of fruit. The category of vegetable consumption is less if the amount of vegetable consumption is < 250 grams per day and sufficient if the amount of vegetable consumption is ≥250 grams per day. From Table 3.2. shows that the majority of vegetable consumption per capita per day in riverside areas is less with a distribution of 90%. Meanwhile, the majority of vegetable consumption per capita per day in urban areas is sufficient with a distribution of 53%.

Table 3.2.Distribution of vegetable consumption per capita/day in the riverside and urban areas of Kabupaten Banjar, 2021

Per capita consumption	Residence				n	%
	Riverside	%	Urban	%		
Less (< 250 grams)	27	90	14	47	41	68
Enough (≥ 250 grams)	3	10	16	53	19	32
Amount	30	100	30	100	60	100

3.3. Knowledge Level of Housewives on Vegetable Consumption in Fulfillment of Healthy Life

The level of knowledge of respondents about vegetable consumption in fulfilling a healthy life in riverside and urban areas was analyzed using descriptive analysis and Likert scale. In determining the category the score is divided into three categories, namely low, medium and high. For the low category the score is 25% - 49.9%, while for moderate the score is 50% - 74.9% and the high category score is 75%.

Table 3.3.Distribution of scores on the knowledge level of housewives on vegetable consumption in fulfilling healthy living in riverside and urban areas, Kabupaten Banjar, 2021

Knowledge level	Residence				n	%
	Riverside	%	Urban	%		
Low (25% - 49.9%)	0	0	0	0	0	0
Moderate (50% - 74.9%)	26	87	16	53	42	70
High (75%)	4	13	14	47	18	30
Amount	30	100	30	100	60	100

Based on the calculation results, it is found that the distribution of the knowledge level score of housewives in the riverside area is 87% in the medium category and the high category is 13%. The highest score for knowledge level of housewives on vegetable consumption in fulfilling a healthy life in riverside areas is 75%, while the lowest score is 63%.

For urban areas, the distribution of housewives with medium knowledge level category is 53% and with the high category is 47%. The highest score of urban area knowledge level is 86%, while the lowest score is 67%. Descriptively it can be concluded that the level of education affects the level of public knowledge about vegetables, as well as location. If it is related to the educational level of the respondents, most of the respondents in riverside areas have elementary school education (SD) while many urban people have high school education (SMA). The environment and information also affect the level of public knowledge about vegetables.

3.4. Housewives Perception Level of Vegetable Consumption in Fulfilling Healthy Life

To analyze the level of perception descriptive analysis and Likert scale was also used. In determining the category, the score is divided into three categories, low, moderate and high. For the low category the score is 25% - 49.9%, while for moderate category the score is 50% - 74.9% and for the high category score is ≥75%.

Table 3.4. Distribution of scores on the perception level of housewives on vegetable consumption in fulfilling healthy living in riverside and urban areas, Kabupaten Banjar, 2021

Perception level	Residence				n	%
	Riverside	%	Urban	%		
Low (25% - 49.9%)	0	0	0	0	0	0
Moderate (50% - 74.9%)	22	73	17	56	39	65
High (75%)	8	27	13	44	21	35
Amount	30	100	30	100	60	100

The score for perception level of housewives about vegetable consumption of fulfilling healthy life, the highest score in riverside areas is 83% which is included in the high category. Meanwhile, the lowest score is 63% which belongs to the medium category. The distribution of the perception level of housewives in riverside areas towards vegetable consumption is 73% in the medium category and 27% in the high category.

Furthermore, for the highest score of the perception level of housewives in urban areas is 90% which is in the high category, while the lowest is 65% which is in the medium category. For the distribution of scores on the perception level of housewives in urban areas on vegetable consumption, 56% in the medium category and 44% in the high category.

From the analysis result, it was found that the category of housewives' perception level of vegetable consumption in the riverside areas was mostly moderate, while in urban areas the moderate and high category were almost balanced. It can be interpreted that the level of perception of housewives towards vegetable consumption in urban areas is better than in riverside areas.

3.5. Differences in the Level of Knowledge and Perception of Housewives on Vegetable Consumption in Fulfilling Healthy Living in Riverside and Urban Areas

Public knowledge about vegetables is considered very important during a pandemic like now. This is due to the need for people to increase their immunity by fulfilling their daily nutritional needs, such as the need to consume vegetables and fruits. Generally, people on the riverside consume vegetables which are usually sold in traditional markets. Likewise for people in the city generally consume vegetables in traditional and modern markets.

The level of public perception of vegetable consumption affects the types of vegetables they consume. Many elderly riverside communities think after consuming green vegetables such as spinach can cause knee

pain. In addition, some of them also think that vegetables that are larger in size will have a higher price. However, this opinion is not necessarily true. This level of perception will show a picture of the opinions of riverside and urban communities on vegetable consumption. To analyze differences in the level of knowledge and perceptions of housewives on vegetable consumption in fulfilling a healthy life in riverside and urban areas, paired sample T-Test analysis was used.

Table 3.5. The results of the different paired sample T-Test test results on the level of knowledge and perceptions of housewives on vegetable consumption in fulfilling healthy living in riverside and urban areas in Kabupaten Banjar, 2021

Different Test	*mean* score (%)	Sig. (2-tailed)
Knowledge level		
Riverside	71.27	0.003
Urban	75,40	
Perception Level		
Riverside	71.73	0.010
Urban	76.67	

The analysis results show that the average or mean score of the level of knowledge of housewives on vegetable consumption in fulfilling a healthy life in riverside areas is 71.27%, while for urban areas it is greater at 75.40%. So descriptively there is a difference in the mean score of knowledge level of vegetable consumption between urban areas and riverside areas. Then statistically, it is known the value of Sig. (2-tailed) is 0.003 <0.05, then H0 is rejected and Ha is accepted. So it can be concluded that there is a difference in the mean score of the level of knowledge of housewives about vegetable consumption between urban areas and riverside areas.

For the perception level, the mean score for the riverside area is 71.73% and the mean score for urban areas is 76.67%. So descriptively the level of perception of housewives on vegetable consumption in fulfilling a healthy life is different. Then for statistical test, it is known the value of Sig. (2-tailed) is 0.010 < 0.05, then H0 is rejected and Ha is accepted. So it can be concluded that there is a difference in the mean score of housewives' perceptions of vegetable consumption in fulfilling a healthy life between urban areas and riverside areas.

3.6. Factors Associated with Vegetable Consumption in Fulfilling Healthy Living in Riverside and Urban Areas

Consumption of vegetables and fruits is very important in meeting the nutritional needs to support the growth and development of the body. In a family, housewives play an important role in determining what is consumed in the family, including vegetable consumption. Therefore, the respondents in the study were housewives. Furthermore, to see the relationship of per capita consumption with internal factors (age, knowledge and perception) and external (education, occupation, family income, place of residence and receiving information) using chi-square analysis.

Table 3.6. Relationship of per capita consumption with internal and external factors

Variable		Vegetable Consumption Per capita				n	%	p-value
		Not enough	%	Enough	%			
Internal factors								
Housewife's age	<35 Years	11	61	7	39	18	30	0.494
	35-50 Years	24	75	8	25	32	53	
	>50 Years	6	60	4	40	10	17	
Knowledge of housewives	Low	0	0	0	0	0	0	0.303
	Moderate	27	64	15	36	42	70	
	High	14	78	4	22	18	30	
Perception of housewives	Low	0	0	0	0	0	0	0.123
	Moderate	24	59	15	37	41	68	
	High	17	89	4	21	19	32	

External Factors								
Housewife education	Low (<high school)	24	75	8	25	32	53	0.235
	High (≥high school)	17	61	11	39	28	47	
Housewife work	Does not work	29	69	13	31	42	70	0.856
	Work	13	72	6	33	18	30	
Family Income	Low (< 1,500,000)	7	70	3	30	10	17	**0.041**
	Medium (1,500,000-3,000,000)	27	79	7	21	34	57	
	High (>3,000,000)	7	44	9	56	16	27	
Residence	Riverside	27	90	3	10	30	50	**0.000**
	Urban	14	47	16	53	30	50	
Receiving Information	Never	11	65	6	35	17	28	0.704
	Once	30	70	13	30	43	72	

From the analysis results shown in Table 3.6. all variables in internal factors: the age of housewives, knowledge and perceptions, there is no significant relationship with vegetable consumption per capita because the p-value> 0.05. So it can be concluded that the age of housewives, knowledge and perceptions have no significant effect in increasing vegetable consumption per capita in families in Kabupaten Banjar.

Then for variables in external factors, namely housewife education, housewife work, family income, residence and receiving information, only family income and residence variables have a significant relationship because p-value <0.05. The income variable p-value is 0.041 < 0.05 and the residence variable is 0.000 < 0.05. While other variables such as education of housewives, work of housewives and receiving information did not have a significant relationship because the p-value> 0.05. So it can be concluded that family income affect significantly to vegetable consumption per capita in Kabupaten Banjar because the size of the expenditure to buy vegetables depends on the existing income. Residence also affect significantly to vegetable consumption because different resident has different habit.

IV. CONCLUSION

Based on the results of research on the knowledge and perceptions of housewives on vegetable consumption in fulfilling a healthy life in riverside and urban areas in Kabupaten Banjar, it can be concluded that:

1. The distribution of the knowledge level score of housewives in the riverside area in the medium category is 87% and the high category is 13%. The highest score of the level of knowledge of housewives on vegetable consumption in fulfilling a healthy life in riverside areas is 75%, while the lowest knowledge score of housewives is 63%. For urban areas, the score distribution for the medium category is 53% and the high category is 46%. The highest score of urban area knowledge level is 86%, while the lowest score is 67%. The distribution of the perception level of housewives in riverside areas towards vegetable consumption is 73% in the medium category and 27% in the high category. The highest score in riverside areas is 83%, while the lowest score is 63%. For urban areas, the score distribution for the medium category is 56% and the high category is 44% The highest score of urban area perception level is 90%, while the lowest score is 65%.
2. Based on Paired sample difference T-Test for the knowledge level,the value of Sig. (2-tailed) is 0.003 <0.05, then H0 is rejected and Ha is accepted. So it can be concluded that there is a difference in the mean score of the level of knowledge of housewives about vegetable consumption between urban areas and riverside areas. For the perception level the Sig. (2-tailed) is 0.010 < 0.05, then H0 is rejected and Ha is accepted. So it can be concluded that there is a difference in the mean score of housewives' perceptions level of vegetable consumption in fulfilling a healthy life between urban areas and riverside areas.
3. The results of the chi-square analysis show that all variables in internal factors, namely the age of housewives, knowledge and perceptions, have no significant relationship with vegetable consumption per capita because the p-value is > 0.05. Then for variables in external factors, namely housewife education, housewife work, family income, place of residence and receiving information, only family income and residence variables have a significant relationship because p-value <0.05. For the income variable, the p-value is 0.041 < 0.05 and the residence variable is 0.000 < 0.05.

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