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Food habits based on gender perspective in rural and urban of West Java

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ABSTRACT

The role of women in food consumption decision-making is closely related to cultural norms. The primary objective of this study was to describe food habits based on gender perspective in West Java. This study used a cross-sectional design. The study was conducted for 12 months in Cianjur Regency (representing rural area) and City of Sukabumi (representing urban area), West Java, Indonesia. The samples were selected using clustered purposive sampling. The total subjects were 150 households. This study showed that in term of food allocation, fathers have privilege, such as fathers eat before mothers and children, setting aside foods for fathers first before sharing the rest with family members, and food menu that the father received was more complete or better. The wives have greater control than husband in aspects of household food management. The wives were also dominant in deciding food expenses in the family rather than their husbands. There were significant differences in food allocation between rural and urban areas. The differences including: fathers eat before mothers and children ($p<0.001$), menu differences between fathers and other family members ($p=0.002$), and menu differences among family members ($p=0.008$). There was a significant difference in decisions making to determine the daily food menu between rural and urban areas ($p=0.004$). Since mothers play an important role in food purchasing, improving nutrition knowledge is necessary for better quality food at the household level. This will have an impact on the nutritional status of all household members.

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1. INTRODUCTION

The differences in access to food between urban and rural areas can be caused by dependency on transportation, distance traveled, the price of nutritious food, and the availability of healthy food [1]. Despite Indonesia's rapid economic growth, people in rural areas benefited less than that one in urban areas. As many as 25.9% of rural households are food insecure, while only 14.1% of urban households are [2]. Environmental factors also influence the choice of food consumed and affect food habits. The food that is often consumed by people in rural areas is different from that of people in urban areas [3].

The household's human capital is characterized by the members' socioeconomic characteristics, such as education, income, occupation, and household size. Another notable characteristic is gender-specific characteristics. Although household with male head has been reported to have better income and access to food, studies showed that household food security and nutritional status is significantly better when women are involved in decision-making in the family [4]. Women have control in the allocation of household expenditure to improve nutritional and educational household [5]. The role of women in decision-making is closely related to cultural norms in the region. Certain cultures and ethnicity also limit women's access to food. There is an opinion that it is important for a man to listen to his wife's opinion because it can help him make well-thought-out decisions in making well-thought-out decisions, one of them is making decisions in food consumption [6].

Given that women are responsible for providing family meals, women's nutrition knowledge is very important for the household's nutritional status. The level of maternal knowledge is related to nutritious feeding practices [7]. Social norms shape individual behaviour, in this case, including eating habits. In certain norms, it can also be a detrimental factor for women and children. This bias weakens the ability of female farmers particularly concerning food security [8]. For example, the habit of prioritizing husbands and sons over wives and daughters so that the food intake received by women is less or less diverse in conditions of limited food availability. In the patriarchal culture in Indonesia, it is natural to be found the idea that men are the working head of the household while women stay at home to complete household chores [9]. Patriarchy dominates the cultural elements in its travel system so that this causes gender differences and injustices, which have an impact on all aspects related to human activity [10]. This study aimed to analyze food habits based on gender perspective in rural and urban of West Java.

2. METHOD

This study used a cross-sectional design. The study was conducted for 12 months in Cianjur Regency (representing rural area) and City of Sukabumi (representing urban area), West Java, Indonesia. The samples were selected using clustered purposive sampling. The sample size is based on an assumption that α=5% (Zα=1.96), power of test=90% (Zβ=1.28), and food security status. Food security agency reported that the percentage of food insecurity in rural area was 17.1% while in urban area the percentage was 5.1% on 2019 Food Security Index [11]. The sample calculation is as (1)-(3).

$$n = \frac{\left[1.96\sqrt{0.222(0.889)}+1.28\sqrt{0.171(0.829)}+0.051(0.949)\right]^2}{(0.171-0.051)^2} \quad (1)$$

$$n = \frac{[0.870+0.558]^2}{0.0144} \quad (2)$$

$$n = 141.6 \sim 150 \quad (3)$$

To anticipate the subjects who may drop out of this study, the number of the samples was added by 9 households. This study collected primary data obtained from interview using questionnaire. Data of household food habits includes frequency of eating and eating together practice within household. Food allocation includes questions about food turn and portion differences between family member, decision of food consumption, and food expenditure. The decision-making answers were categorized into husband dominant, husband only, wife dominant, wife only, and fully shared. The questionnaire was developed from Moser Gender Framework [12] dan Harvard Analytical Framework [13]. Prior to data collection, the questionnaire instruments were tested for validity. The test showed that all the instruments were valid with Alpha Cronbach's value >0.6. Chi-square analysis was performed using statistical package for the social sciences (SPSS) 23.0 to compare differences between urban and rural area. Prior to the study, the ethical approval from IPB University, Number 680/IT3.KEPMSM-IPB/SK/2022, was obtained.

3. RESULTS AND DISCUSSION

Table 1 presented the sociodemographic characteristics of the respondents' household. The average number of family members was five people in both urban and rural areas. The majority of family members in the workforce (≥15 years of age) were currently employed (49%). Sociodemographic characteristics of men (fathers) and women (mothers) can be seen in Tables 2 and 3.

Table 1. Sociodemographic characteristics of the households in West Java

Sociodemographic characteristics	Cianjur (Rural)	Sukabumi (Urban)	Total
Number of household members (person), mean±SD	5±1	5±1	5±1
Employment status of family members ≥15 years of age, n (%)			
Employed	190 (49.9)	202 (48.2)	392 (49.0)
Employed, but temporarily laid off	2 (0.5)	1 (0.2)	3 (0.4)
Unemployed, just recently laid off	1 (0.3)	0 (0.0)	1 (0.1)
Unemployed	188 (49.3)	216 (51.5)	404 (50.5)

Table 2. Sociodemographic characteristics of the fathers in West Java

Sociodemographic characteristics	Cianjur (Rural) n=148	Sukabumi (Urban) n=148	Total n=296
Age (year), mean±SD	36.0±6.9	36.7±8.1	36.4±7.6
Ethnicity, n (%)			
Sundanese	145 (98.0)	145 (98.0)	290 (98.0)
Javanese	2 (1.3)	1 (0.7)	3 (1.0)
Malay	0 (0.0)	1 (0.7)	1 (0.4)
Bugis	1 (0.7)	0 (0.0)	1 (0.3)
Kaili	0 (0.0)	1 (0.6)	1 (0.3)
Education, n (%)			
Did not go to school	0 (0.0)	1 (0.7)	1 (0.3)
Did not finish elementary school	4 (2.7)	0 (0.0)	4 (1.3)
Graduated from elementary school	56 (37.8)	26 (17.6)	82 (27.7)
Graduated from junior high school	39 (26.4)	35 (23.6)	74 (25.0)
Graduated from senior high school	41 (27.7)	80 (54.1)	121 (40.9)
Graduated from vocational school	6 (4.1)	1 (0.7)	7 (2.4)
Graduated from higher education	2 (1.4)	5 (3.4)	7 (2.4)
Occupation, n (%)			
Unemployed	4 (2.7)	2 (1.4)	6 (2.0)
Civil servant	1 (0.7)	1 (0.7)	2 (0.7)
Private sector employee	15 (10.1)	29 (19.6)	44 (14.9)
Entrepreneur	42 (28.4)	29 (19.6)	71 (24.0)
Farmer	10 (6.8)	2 (1.4)	12 (4.1)
Labourer/driver/domestic helper	62 (41.9)	65 (43.9)	127 (42.9)
Others	14 (9.5)	20 (13.5)	34 (11.5)

There are differences in the sociodemographic characteristics of men (fathers) and women (mothers) in the family as seen in Tables 2 and 3. The average age of men is higher (36 years) than women (31 years), the education level of men are also higher (graduated high school 40.9%) than women (graduated high school 31.7%). In addition, the number of men who have jobs is 98%, which is very high compared to women who have paid jobs (22.7%). The rest of the mothers (77.3%) stay at home as housewives. When compared to conditions in urban and rural areas, the education level of men and women in urban areas is higher than in rural areas, but for ethnicity, age and type of work are relatively the same. For example, the majority of women are housewives and men work in the informal sector (labourer/drivers/domestic helpers).

Table 3. Sociodemographic characteristics of the mothers in West Java

Sociodemographic characteristics	Cianjur (Rural) n=150	Sukabumi (Urban) n=150	Total n=300
Age (year), mean±SD	31.3±6.2	31.9±6.7	31.6±6.5
Ethnicity, n (%)			
Sundanese	150 (100.0)	149 (99.3)	299 (99.7)
Minang	0 (0.0)	1 (0.7)	1 (0.3)
Education, n (%)			
Did not go to school	1 (0.7)	0 (0.0)	1 (0.3)
Did not finish elementary school	4 (2.7)	1 (0.7)	5 (1.7)
Graduated from elementary school	59 (39.3)	35 (23.3)	94 (31.3)
Graduated from junior high school	46 (30.7)	48 (32.0)	94 (31.3)
Graduated from senior high school	35 (23.3)	60 (40.0)	95 (31.7)
Graduated from vocational school	1 (0.7)	4 (2.7)	5 (1.7)
Graduated from higher education	4 (2.7)	2 (1.3)	6 (2.0)
Occupation, n (%)			
Housewives	117 (78.0)	115 (76.7)	232 (77.3)
Civil servant	1 (0.7)	0 (0.0)	1 (0.3)
Private sector employee	2 (1.3)	4 (2.7)	6 (2.0)
Entrepreneur	23 (15.3)	24 (16.0)	47 (15.7)
Farmer	1 (0.7)	0 (0.0)	1 (0.3)
Labourer/driver/domestic helper	6 (4.0)	7 (4.7)	13 (4.3)

Food habits can be defined as a conscious and repetitive way of eating. Food habits include the types of foods eaten, the amount and timing of their consumption, in response to cultural and social influences [14]. Family economic status is also related food habits which consist of food availability, family purchasing power, and knowledge about nutrition and health. A better level of knowledge and economic status of a family can result in a family having good food habits because it can meet food needs and provide nutritious food [15]. The mother's role is to provide food to the family starting from preparing the menu, making and serving dishes according to the wishes and needs of the family. Selection and determination that is done repeatedly and continuously will form eating habits in the family [16]. The frequency, habits, and value of eating together in a family are presented in Table 4.

Table 4. Household food habits in West Java

Household food habits	Cianjur (Rural) n=150	Sukabumi (Urban) n=150	p-value
Eating frequency (times/day), mean±SD	2.6±0.5	2.6±0.5	1.000
Category of eating frequency, n (%)			
1 time	1 (0.7)	1 (0.7)	
2 times	62 (41.3)	55 (36.7)	0.668
3 times	86 (57.3)	91 (60.6)	
>3 times	1 (0.7)	3 (2.0)	
Habit of eating together with family, n (%)	119 (79.3)	123 (82.0)	0.144
Common meal time of eating together with family, n (%)[1]			
Breakfast	74 (49.3)	54 (36.0)	0.172
Lunch	48 (32.0)	31 (20.7)	0.113
Dinner	97 (64.7)	92 (61.3)	0.120
Meaning of eating together with family, n (%)[1]			
Togetherness	106 (70.7)	104 (69.3)	0.801
Convenience	72 (48.0)	57 (38.0)	0.726
Sharing happiness	65 (43.3)	48 (32.0)	0.551
The food is more delicious	71 (47.3)	80 (53.3)	0.204
It is already a habit	82 (54.7)	66 (44.0)	0.290

Note: [1]Each respondent may answer more than one choice

Based on Table 4, almost all subjects ate 2-3 times/per day. Moreover, more than half of the subjects ate 3 times a day. The proportion of subjects eating 3 meals/day was higher in urban (60.6%) than in rural (57.3%), but it is not significantly different ($p>0.05$). Increasing the frequency of eating can occur psychologically to increase endurance and nutrition. Eating frequency is also influenced by information from the media. In addition, working from home causes an increased desire to eat and longer mealtimes [17]. Most subjects, rural and urban, had a habit of eating together with family (79.3% in rural and 82% in urban). Eating together is mostly done at dinner time in most households (64.7% in rural and 61.3% in urban). The reason why dinner becomes the most ideal time to eat together is because all family members have finished their respective activities, especially for the father who have just come home from work. The reason or meaning of eating together for the family is because of being together and giving pleasure to the family [18]. Distribution of respondents based on the answer "Yes" to the statement of food allocation are presented in Table 5.

Table 5. Distribution of respondents based on the answer "Yes" to the statement of food allocation

Food allocation, n (%)	Cianjur (Rural) n=150	Sukabumi (Urban) n=150	p-value
Father eats before mother and child	49 (32.7)	22 (14.7)	<0.001*
Mother/daughter eats last	9 (6.0)	8 (5.3)	0.803
Food for father is set aside first	47 (31.3)	62 (41.3)	0.072
Food for father is larger in portion	77 (51.3)	67 (44.7)	0.248
Menu differences between father and other family members	34 (22.7)	14 (9.3)	0.002*
Menu differences among family members	29 (19.3)	13 (8.7)	0.008*

Note: Chi-square test, *Significantly different ($p<0.05$)

Table 5 shows a gender gap that still existed in food allocation of the respondents' households both in urban and rural areas. There are several family eating habits that are higher in rural areas than in urban areas, including fathers eating before mothers and children (32.7% in rural areas and 14.7% in urban areas), setting aside food for fathers first before sharing the rest with family members others (31.3% in rural areas and 41.3% in urban areas), and there are still some households that differentiate the food menu between fathers and other family members (22.7% in rural areas and 9.3% in urban areas), where the food menu that the father received was more complete or better. Based on the difference test, it is known that there is a significant difference

($p<0.05$) between rural and urban groups in family food distribution in the aspect of fathers eating earlier than mothers and children ($p<0.001$), differences in food between fathers and other family members ($p=0.002$), and differences in food between family members ($p=0.008$).

This research shows that there are priorities for fathers in the matter of food allocation. This is consistent with study that revealed that due to their economic positions, men were prioritized when it came to eating order and food allocation, receiving higher quantities and better-quality foods before the mother and other younger household members [19]. The father is usually given priority when it comes to feeding because he is the one in charge of providing for the family economically, thus they should get more food [20]. In general, the gender gap is found to be higher in rural areas than in urban areas. One of the reasons is the cultural factor, where the patriarchal value in rural areas is higher than in urban areas [21]. In a patriarchal culture, a man is positioned to a higher degree than a woman, which includes the right to access food resources [22]. The decision-making process within the family related to the daily food menu, the amount of food, and nutrition balanced food menu. Distribution of respondents based on food consumption decision making indicators in West Java can be seen in Table 6.

Table 6. Distribution of respondents based on food consumption decision making indicators

Decision making indicators	Cianjur (Rural) n=150	Sukabumi (Urban) n=150	p-value
Determine daily food menu, n (%)			
Husband dominant	10 (6.7)	5 (3.3)	0.004*
Husband only	1 (0.7)	6 (4.0)	
Wife dominant	10 (6.7)	9 (6.0)	
Wife only	111 (74.0)	126 (84.0)	
Fully shared	18 (12.0)	4 (2.7)	
Determine amount of food, n (%)			
Husband dominant	5 (3.3)	2 (1.3)	0.095
Husband only	1 (0.7)	1 (0.7)	
Wife dominant	5 (3.3)	3 (2.0)	
Wife only	127 (84.7)	141 (94.0)	
Fully shared	12 (8.0)	3 (2.0)	
Determine nutrition balanced food menu, n (%)			
Husband dominant	1 (0.7)	3 (2.0)	0.222
Husband only	2 (1.3)	2 (1.3)	
Wife dominant	3 (2.0)	3 (2.0)	
Wife only	133 (88.7)	139 (92.7)	
Fully shared	11 (7.3)	3 (2.0)	

Note: Chi-square test, *Significantly different ($p<0.05$)

The women or the wives mostly determine food consumption in households. As shown in Table 6, only the wives who select the daily food menu (74% in rural and 84% in urban), determine the food amount to be consumed for their family (84.7% in rural and 94.0% in urban), and decide the type of food which conform to the balanced nutrition requirements (88.7% in rural and 92.7% in urban). Women have greater control than men in aspects of household food management, namely aspects of agricultural management, financial management, and food supply [23]. In general, the role of women in decision-making about food consumption in urban areas is slightly higher than women in rural areas. There is a significant difference in the decision-making about determining the daily food menu between rural and urban areas ($p=0.004$).

The findings of this study demonstrate how important the women's role is in decision making about food consumption in their households. The primary knowledge holder related to food preferences and eating habits at home, are the women [24]. It is a condition that is found happening more in rural areas, whereas in urban areas there is already some demand for men's role to cook for the effort of providing a meal at their home.

Decision making in the family is very important to note. With decisions taken jointly, of course, household relations will continue to run well. One form of decision making is a decision in spending on food [25]. The food expenditure becomes a key variable to define the capacity of society to consume food as well as to enhance food security [26]. Distribution of respondents based on food expenditure decision making indicators in West Java can be seen in Table 7.

The women also decide to determine the amount of household food expenditure as shown in Table 7. The underlying reason for women being dominant as decision makers in financial arrangements and prioritizing needs is because women are considered to be the most responsible for managing household needs [27]. In general, the decision made by women in urban areas to determine food consumption expenses in their household is slightly higher than those in rural areas. There was no significant difference in the distribution of respondents based on indicators of food expenditure decision making between rural and urban groups ($p>0.05$).

The position of women in the household is very important in making decisions on spending to meet basic needs [28]. The role of women in the household is also as an appropriate financial management in spending decisions on household needs, especially food which affects the nutritional status of household [29]. Women as decision makers in household food expenditure are made a better decision about household nutrition [30].

Table 7. Distribution of respondents based on food expenditure decision making indicators

Decision making indicators	Cianjur (Rural) n=150	Sukabumi (Urban) n=150	p-value
Determine amount of expenditure for daily meals, n (%)			
Husband dominant	3 (2.0)	3 (2.0)	0.253
Husband only	6 (4.0)	4 (2.7)	
Wife dominant	3 (2.0)	3 (2.0)	
Wife only	127 (84.7)	137 (91.3)	
Fully shared	11 (7.3)	3 (2.0)	
Determine proportion of food expenditure from household income, n (%)			
Husband dominant	2 (1.3)	3 (2.0)	0.183
Husband only	8 (5.3)	4 (2.7)	
Wife dominant	4 (2.7)	3 (2.0)	
Wife only	124 (82.7)	136 (90.7)	
Fully shared	12 (8.0)	4 (2.7)	

4. CONCLUSION

This study concluded that in term of food allocation fathers have privilege such as fathers eat before mothers and children, setting aside foods for fathers first before sharing the rest with family members, and food menu that the father received was more complete or better. The wives have greater control than husband in aspects of household food management such as selecting the daily food menu, determining the food amount to be consumed for their family, and deciding the type of food which conform to the balanced nutrition requirements. The wives were also dominant in deciding food expenses in the family rather than their husbands.

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