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Articles

# Determinant of Obesity Among Women From Low Income Family In RW 05 Area Sub-district Cibubur 2021

Determinan Penyebab Kejadian Obesitas Pada Wanita Keluaga Berpendapatan Rendah di Wilayaj RW 06 Kelurahan Cibubur Tahun 2021

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**Abstract**: Obesity is one of the nutrition problems that the prevalence increases continuously. People from low socioeconomic status significantly increase. Likewise, obesity in a woman is more prone than man. This study aims to explore the causes of obesity in adult women who come from middle and lower families. The research was conducted using qualitative principles, which research method in-depth interviews and observations. The primary informants involved ten adult women who have obese nutritional status and the key informants were community leader and family members. Results showed the influence perception of body shape on the intention and willingness to lose weight. Wrong eating patterns are excess food intake and consumption of food and beverages, which lead to obesity along with less exercise and passive activity. Its behavior is affected by individual perceptions, social support, and the environment.

Key Words: body image, eating pattern, obesity determinant, qualitative study, physical activity

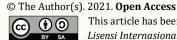
# **1. INTRODUCTION**

Prevalence obesity increased significantly year a year. In 2016, adults worldwide had 40% women and 39% men with obesity (WHO,2020). Meanwhile Indonesian Health Report in 2018 stated, 21,8% of adults had obesity. It is much than in 2013 (14,8%) and 2007 (10,5%).

Obesity happens because of imbalanced energy intake and output over a long period, thus increasing body weight regularly (Church and Matin, 2018). Excess food intake is one of the causes of obesity. But other causes also come from genetic factors that are supported by the environment. Obesity can be categorized as a chronic disease because the condition can cause the release of inflammatory agents (Guilherme, 2008). Obesity might happen in every life cycle. In this research, we focus on obesity in women. Adult, especially women, obesity could bring disadvantages like limited productivity, increased risk of metabolic disease, and cost of medical (Goettler, 2017). Women incline to be obese based on physiology and their role in culture (Pinto et al, 2018)

Obesity in urban mostly happens rather than in rural (Riskesdas, 2018). Based on that, we set a place for research in one of the urban areas in Jakarta Timur. Other than that, people from low social-economic chosen because this decade trended obesity in that community higher (Amarasinghe, 2012).

The direct cause of obesity is imbalanced food intake and physical activity (Church and Martin, 2018). Also, women have intention in body image, that would influence the mind, willingness, and action to control and lose their body weight excess (Aziz et al., 2018). This



study finds the causes of obesity in women through eating pattern, physical activity, body image, and interaction with the environment, society, and culture.

# 2. METHODS

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Item	Торіс	
Introducing	Introduction from researches about the purpose of the study, data collection methods, and willingness to be involved by filling the informant consent form.	
Preception of Body Image	Explore the informant's understanding of obesity in terms of health and aesthetic appearance, looking for obstacles and motivations of informants to have an ideal body weight	
Eating Pattern	Talk about daily consumption and understanding of food selection and eating habits.	
Physical Activities	Exploration about daily physical activity, exercise activity, along with motivation and obstacle to do	
Closing	Express gratitude for participation in research and giving souvenir	

Table 1 Guidelines of Depth Interview

# 3. RESULTS AND DISCUSSION

#### **Characteristic of Informants**

Ten informants were involved in the research as primary informants. The age range of informants is adult age between 19 until 59 years old, which youngest 21 years old and oldest 55 years old. All informants are obese. Other than that, they have to fit based on essential variation for the versatility of data. On the 1st table, we have number of informants that fit on essential variation.

Characteristic	n	(%)
Age		
19-29	3	30
30-39	4	40
40-49	2	20
50-59	1	10
Marital Status		
Married	6	60
Single	4	40
Child Parity		
Not have child	3	30
1-2	3	30
>2	4	40
Educational Background		
Elementary school	3	30
Junior High School	1	10
Senior High School	5	50
University	1	10
Work Status		
Employeed	5	50
Unemployeed	5	50

Table 2 Characteristic of Informants

#### **Body Image Preception**

We used the Figure Rating Scale made by Mutale et al., 2016 to identified preception body shape on informants. All informants stated their body shape in range number 7 till 8, which mean they were aware of their obese body. We asked about body weight and height lately, that match with the result like as body shape. Even though all informants know about their obese body, but the responses to it were different. Informants who tend to be sad, anxious, and dissatisfied with their body shape mention their efforts to lose weight. While the informant, who had a positive perception, satisfied with his body shape, feels sufficient and happy to negate the intention to achieve a normal weight.

# "Honestly, i don't like it. But I've tried (to lose weight) and it is not worked" (I4, married. employeed)

Valuation of body shape dissatisfaction and perception of fat weight gives rise to a willingness, effort, and action to achieve the desired weight to be more balanced (Haynes et al., 2018; Bibiloni., et al. 2017).

"I'm happy enough with this body, all i need is just to be healthy and fit. So thats fine" (13, married, unemployed)

Lack of awareness and self-awareness in the condition of a fat body that negates the desire to lose and control weight (Bayyari et al, 2013).

#### Motivation and Obstacle to Have Normal Body Weight

#### **Internal Factors**

Internal factors comes from informants itself, that are desire and hope and the innate disease suffered (joints and bones, hypertension).

"That just my initiative to lose weight, I want to make my body thinner so i can buy clothes easily." (14, married, employeed)

The existence of problems related to the condition of his body could be a motivation to lose weight as well as the expectations made (Aziz et al., 2016). Internal obstacles faced by informants are the lack of the correct information to lose weight so that it does not match expectations and is difficult to tolerate. The use of the wrong diet methods can lead to weight loss failures that decrease motivation to do it again (Raharnis, 2014).

"I have the desire to do (lose weight), but to work, it is not easy. I Don't have any consistency even though I know right the step by step. I know it, but I can't make it." (15, Single, Unemployeed).

#### Social Environment

This factors talk about social and environmental could influce motivation to have normal body weight. One of informant stated she wanted to look "normal" in her community. Social support plays a vital role in the formation mindset of normal body shape. Therefore, motivation arises from the desire to be part of the prevailing standards (Curtis and Loomans, 2014). In addition, other social factors due to dependence on family members cause difficulty regulating their diet.

"Since my child was born, especially the third one, i wasn't live with my parent anymore. So no one controls my meal. I could eat what I want." (I1, married, unemployed)

#### **Excess Food Intake**

#### **Eating Habit**

We asked several questions to describe their eating habit, some informants said their portion in one meal is pretty large than usual, and its repeatedly happen without any reason. It's a daily habit because of their big appetite.

"I'm a big eater. I can eat more than thrice a day, especially about snacking. I like it, and i do it all long day." (I1, married, unemployed)

#### **Personal Needed**

We talk about some activities that could raise appetite, such as supplements and drugs consumption also contraception.

"I drink traditional herbs when my legs ache because of gout. That's make my appetite increased." (16, unmarried, employed)

#### **Psychology Factor**

We discover conditions whereas happiness or stress could lead to their appetite. Despite the fact that it comes from different informants, we can conclude both situations made their portion of food pretty much from what it should and happened for a quite long period, thus why this behavior bring a risk of obesity.

"I moved here a year ago, my husband got a job, and could rent a house with his salary. That makes me happy, and I eat happily too without noticing that's too much" (17, married, unemployed)

Higher stress levels can increase the consumption of unhealthy foods, increasing the risk of being overweight (Choi, 2020). But other studies have also shown good emotions, and positive thoughts can also lead to a tendency to overeat, which can be a risk of obesity (Pantelis D, 2018).

#### **Life Changed**

One of our informants mentioned her appetite increased during her teens when she was menarche, and it became behavior to have excess food. She likes snacking even though she had meal already before. That's the same thought with a study (Klum K.L, 2013) where the Adolescent transition period impacts psychological and physical conditions and changes in phenotype ovarian hormone that can increase the risk of overeating, even binge eating.

#### **Social Environment**

The social environment affects a person in excess food consumption through the atmosphere formed, models of family or friends, the tendency to eat out of the house as a form of rope binding. Lack of social support can decrease interest and motivation for weight loss efforts (Aziz et al., 2016).

"Only sometimes, if my children bring food to home, i'll have dinner even though that's not my habit." (I1, married, not unemployed)

#### Work Factor

Employed women and homemakers have difficulty regulating their eating hours and numbers, so they unconsciously consume excessively. It is mentioned by (Pinto et al., 2018) that women tend to be obese because they have limited time to pay attention to themselves.

"Yes, I had big eat before (when i was worked), I ate while preparing my job, caretaking of my children, and cooking. That so hectic, I think i should eat much." (I1, married, unemployed)

#### **Consumption of Obesity-risk Food**

Obesity-risk foods such as high-energy food, high-fat, high-carbohydrate, and zero nutrient foods become the informant's daily intake for reasons of favorite and taste satisfaction. In addition, the opportunity to eat these foods is getting more significant because it can support the social environment and abundant availability around the

residence so that the consumption of unhealthy food is improved (Baruth et al., 2014). There were six locations of high-fat food vendors and seven sellers of sugary drinks at the research site.

"Fried food every day. When I open my eyes I'm often craving it, at noon I could buy too. Anyway I always eat it everyday." (I4, married, employed)

#### **Limitation of Consuming Healthy Food**

#### **Wrong Infromation**

We researched the reason behind our informants' cant eats healthy food. One of the reasons they poured by wrong information and from unreliable source and person. They said eat veggie, considered one of the healthy food, is not suitable for daily consumption. It causes gout, arthritis. Meanwhile the fact that none of the strong studies could prove it.

#### **Food Palatable**

Other informants mentioned that food taste is a dominant factor in food selection. Therefore, eating out of the house, whose eating choices are unhealthy, becomes an election to meet inner satisfaction rather than meet nutritional food needs.

#### Social and Environment Support

Environment and social support play an essential role in the consumption of healthy foods. The availability and access to healthy food at home and work will affect the selection of cooked or purchased food (Osei-Kwasi et al., 2020). Informant mentions the limitations experienced, which availability of raw materials and limited time to cook, thus she ignores healthy food.

"It is not like I don't like veggies, but I don't have time to cook and barely bought it. Also, at the workspace, none of those sellers, so I just eat what there are served" (15, unmarried, employed)

The social influence relates to the role of women in family as the responsible procurement of family food. They had difficulty meeting healthy food needs because they followed the tastes of family members. According to the informant, for women, the priority of feeding is not themselves but family members. Eating behavior in obese women is more complex on multilevel factors, which causes it difficult to be controlled (Vizcarra et al, 2019).

"My husband, first and second children don't like it (vegetables)—only me and my last child who eat. When we cook it (vegetables), there are many leftovers. I think it's a waste of many. So I cook it rarely, not every day." (12, married, unemployed).

#### **Overview of Physical Activity**

The most common physical activities are daily house wifes such as cleaning houses, cooking, taking care of children, and working for employed informants. They have rest and unactive activities after finishing it all. The rest-activity could be watching TV or playing with the smartphone which is lying down or sitting. For employed informants have a risk more on unactive activity because all the work sits on their desk.

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"I'm fat since my children grown up and didn't need more attention to babysitting them, so i could more relax" (13, married, unemployed)

#### Exercise Support

Most informants have regular exercise habits due to sports activities held in the environment. But unmarried informants prefer to exercise outside for recreation and friendly reason.

"I have no interest to do (exercise) in the surrounding environment. I prefer do it alone or in another place with a different atmosphere" (19, unmarried, employed)

All informants agree that exercise brings positive benefits for maintaining body health. In addition, pandemic conditions have to be healthy and fit. Besides their knowledge about exercise, support obtained from family and friends needs to make their action work. Support from society includes inspiration being role models, and invitation for having fun, other than exercise.

The research site is a friendly environment conducted by sports activities. Such as a regular aerobics agenda for women held by PKK women. There are also two fields for exercise activity around the research site. The track and environment are also safe for doing sports.

#### Obstacle to do Exercise

#### **Environmental and Community Dependency**

This study was held during a pandemic in 2021 in which all outdoor activity should be restricted. One of them is exercise in public with mass participants. That's affected aerobics agenda in the research site for several times dismissed.

"These days because of covid-19 I've never exercise anymore." (18, unmaried, employed)

The study (Gilbert et al. 2019) identified environmental limitations as factors that significantly influence sports participation. Other informants mentioned sports barriers because they are not familiar with the existing community. The feeling of anxiety because of being ostracized makes him reluctant to exercise.

"I've never join aerobics here because im afraid they will make fun of me." (I4, married, employed)

Environmental and social construction has an impact on the participation of sports activities in the environment. The ecology social framework determining physical activity in low economic communities shows obstacles to the mesosystem, namely the existence of community strength and environmental planning affecting sports participation (Rawal et al, 2019).

#### **Time Constrain**

Although in previous statements, our informants believe exercise/sport could make their body healthy and fit. Still, there are other responsibilities such as working and parenting, forced to give up exercise time. Many are top priorities rather than to do exercise.

"I want to join the aerobic agenda, but my child is different from the typical child. She is so whining. No one could take care of her except me, that's why I couldn't take my eyes over her." (17, married, unemployed).

Due to inflexible working hours and household chores, time constraints lead to inadequate personal time and fatigue conditions (Rawal et al, 2020).

#### **Personal Problem**

Personal problem is a limitation that comes from internal physic and psychology. One of them is motivation, intention, and preception in regular exercise. They agree about the advantages of exercise and sport, but that's not enough to make it realize to do. It still depends on their mood and willingness.

"I exercise when I have time. Aerobics agenda in here twice a time, and I just joined one of it or not joined if wont to do." (14, married, employed)

In other, physical limitation from their body endurance. After effect of exercise such as fatigued, sore and bone aches made their body uncomfortable and trouble for other activity. The level of individuals who can influence sports participation comes from low motivation, exercise benefit information, correct exercise skills, and endurance and physical strength (Gilbert et al., 2014).

"I just do light exercise but my body feel aches and got more tired. Even for sholat after that is so hard." (I1, married, unemployed)

### 4. CONCLUSION

Perception of body image affects the intention and willingness to have a normal weight. But unfortunately there are many obstacles to do the action, such as unknowing information and inconsistency. The eating pattern that would make the risk of obesity higher are eating excessive amounts and consumption of foods at risk of obesity (hight energy, fat, and carhydrates). These factors come from the individual (eating age, personal needs, psychological factors, life changes, and information limitations), environment (availability and access), and social (support and work). Most of the informants have active physical activity to do household activities, but after finished, it turns to passive activities. Excercise and sport activity depend on the environment and community as well as time constraints and individual problems.

#### **CONFLICT OF INTEREST**

The authors declare that there were no conflicts of interest in this study.

#### REFERENCES

- Amarasinghe, A. and D'Souza, G (2012) "Individual, Social, Economic, and Environmental Model: A Paradigm Shift for Obesity Prevention" ISRN Public Health, 2012(1), pp. 1–10. doi: 10.5402/2012/571803.
- Aziz. A, N. S., et al. (2016) "Perspective on Obesity Problems and Associated Factors to Reduce Weight among Overweight and Obese Housewives: A Qualitative Study" Journal of Womens Health, Issues and Care, 05(06). doi: 10.4172/2325-9795.1000255.
- Baruth, M. et al. (2014) "Perceived Barriers to Exercise and Healthy Eating Among Women from Disadvantaged Neighborhoods: Results from a Focus Groups Assessment" Women and Health, 54(4), pp. 336–353. doi: 10.1080/03630242.2014.896443.
- Bayyari, W. et al, (2013) "Dieting behaviours, obesity and predictors of dieting among female college students at Palestinian universities" Eastern Mediterranean health journal = La revue de sante de la Mediterranee orientale al-Majallah al-sihhiyah lisharq al-mutawassit 19(1), 30–36.
- Choi J. (2020) "Impact of Stress Levels on Eating Behaviors among College Students" Nutrients, 12(5), 1241. https://doi.org/10.3390/nu12051241
- Church, Timothy and Martin, C K. (2018) "The Obesity Epidemic: A Consequence of Reduced EnergyExpenditure and the Uncoupling of Energy Intake" Obesity (2018) 26: 14 – 16. doi : :10.1002/oby.22072
- Curtis, Cate dan Loomans, Cushla (2014) "Friends, family, and their influence on body image dissatisfaction" Women's Studies Journal, Volume 28 Number 2, December 2014: 39-56.
- Gilbert et al. (2019) "A Qualitative Study Identifying Barriers and Facilitators of Physical Activity in Rural Communities". Journal of Environmental and Public Health, vol. 2019, Article ID 7298692, 7 pages, 2019. https://doi.org/10.1155/2019/7298692
- Goettler, A. Grosse, A. Sonntag, D. (2017) "Productivity loss due to overweight and obesity: a systematic review of indirect costs" BMJ 2017; 7(10): e014632. doi: 10.1136/bmjopen-2016-014632
- Guilherme et al., (2008) Adipocyte dysfunctions linking obesity to insulin resistance and type 2 diabetes' Nat Rev Mol Cell Biol. 2008 May; 9(5): 367–377. doi: 10.1038/nrm2391
- Haynes et al. (2018) "A systematic review of the relationship between weight status perceptions and weight loss attempts, strategies, behaviours and outcomes" Obesity reviews : an official journal of the International Association for the Study of Obesity, 19(3), 347–363. https://doi.org/10.1111/obr.12634
- Kemenkes RI. (2018) Riset Kesehatan Dasar (Riskesdas) 2018. Lembaga Penerbitan dan Pengembangan Kesehatan Kementerian Kesehatan Republik Indonesia (Kemenkes RI), Jakarta.
- Klump K. L. (2013) Puberty as a critical risk period for eating disorders: a review of human and animal studies. Hormones and behavior, 64(2), 399–410. https://doi.org/10.1016/j.yhbeh.2013.02.019

- Pantelis D. (2018) The role of emotions in eating behavior and impact on obesity and weight management. Adv Obes Weight Manag Control. 2018;8(3):175-176 DOI: 10.15406/aowmc.2018.08.00237
- Petersen, T.L et al. (2020) Association between parent and child physical activity: a systematic review. Int J Behav Nutr Phys Act 17, 67 https://doi.org/10.1186/s12966-020-00966-z
- Pinto KA, et al. (2018) "Gender, time use and overweight and obesity in adults: Results of the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil)" PLOS ONE 13(8): e0198380. https://doi.org/10.1371/journal.pone.019838
- Rahanis dkk. (2014) "Analisis Upaya-Upaya Penurunan Berat Badan Pada Wanita Usia Produktif Di Wilayah Kerja Puskesmas Wawonasa Kecamatan Singkil Manado" Jurnal Kedokteran Komunitas dan Tropik. Vol 2 No 2: 63-70
- Vizcarra et al., (2019) "Weight Matters—Factors Influencing Eating Behaviors of Vulnerable Women" Nutrients. 2019 Aug; 11(8): 1809. doi: 10.3390/nu11081809
- World Health Organization. (2018) Obesity and Overweight. Available from : https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight [Retrieved September 2020]