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Theory Model of Planning Behavior in Explaining Dieting Behavior in Obese Women

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ABSTRACT

Obesity has been a threat to humans for a long time. The increase in the number of sufferers has started to worry. The fact is that in almost all regions, women have a higher prevalence of obesity than men. It takes a physical intervention to end obesity, one form is diet. This study aims to look at dietary behavior in first-degree obese women as explained by the theory of planned behavior (TPB) model in obese women. The sample in this study used non-probability sampling with a purposive sampling technique. The criteria imposed on the respondents of this study were, women, with first-degree obesity, went on a diet with professional assistance, namely nutrition specialists. The results in this study indicate that the theory of planned behavior model can be constructed to see dietary behavior in obese women, which means that this theoretical model fits between the data in the field and theory

INTRODUCTION

Experts and researchers also agree that obesity occurs because a large amount of incoming calorie intake is not matched by a lot of physical activity (Harriger & Thompson, 2012; Lim, Lindarto & Zein, 2014), in other words, the cause of obesity is excessive eating behavior. Furthermore, Far and Jin (2014) in a study showed the results that individuals with low self-control are associated with a lazy attitude to exercise and excessive eating behavior. A Basic Health Research (Riskesdas) provides information that there has been an increasing trend in the proportion of obesity in adults since 2007, namely 10.5% (Riskesdas 2007), 14.8% (Riskesdas 2013) and 21.8% (Riskesdas 2018). In a fact about obesity it was found that in all regions, obesity occurs higher in women than men (Ministry of Health RI, 2018). In Indonesia it is known that there are around 44.4% of women who are obese and this figure is higher than cases of obesity that occur in men (26.6%). Kelly (2008) states that in almost all regions of the world the prevalence of obesity is higher in women than in men.

According to Bredella (2017) said that differences in body composition make women more prone to obesity than men. Women have more fat mass than muscle mass. Torre, Lolli, Ciana, Maggi (2017) said that differences in hormone levels in the bodies of women and men also affect body shape. High testosterone and low estrogen levels in the body help men lose weight more easily. This condition is the opposite of the condition in a woman's body. Diana, Yuliana, Yasmin and Hardinsyah (2013) said that the factors that cause women to become obese more easily than men are that women have less physical activity than men, intakes such as fat and carbohydrates in women are easier to turn into fat.

In the world, obesity ranks as the fourth leading cause of death or accounts for 30% of world mortality. Hermawan (2020) in a book entitled "Getting to Know Obesity" says that obesity will have an impact on various aspects of life. Psychologically obesity will have an impact, feelings of anxiety, depression, hopelessness, withdrawal and low self-esteem. The impact caused by obesity socially is, being rejected by groups, being negatively stigmatized, being discriminated against, being harassed by friends and being laughed at. Lim, et al (2014) said that obese women are at greater risk of psychological dysfunction than obese men, this has the potential to increase social pressure on women to be thin. The physical impact of obesity includes: cancer, diabetes, risk of injury, heart disease and stroke. This of course will have a wider impact on other aspects of life such as the economy because health costs will increase and the quality of life will decrease.

In a broader scope, the problem of obesity will have an impact on the government, because the government through the Health Social Security Administering Body (BPJS) is currently here to ensure that all Indonesian people benefit from health care and protection in meeting their basic health needs. If there is an increase in sufferers of diseases caused by obesity, of course this creates a separate burden for the government, because it has to bear the medical expenses.

In 2017 the Health BPJS Public Relations team reported that there was an increased risk of cardiometabolic diseases such as diabetes mellitus, hypertension and kidney failure, and what is more ironic this disease does not only occur in adults, but also in children and adolescents due to lack of exercise and unhealthy eating patterns. health that causes obesity. It was found that in the 2014-2016 period, the government spent Rp. 36.3 trillion to finance diseases caused by cardiometabolism in the poor in Indonesia. Another fact about obesity in Indonesia is the findings of UNICEF (2020) that a supportive environment for preventing overweight in Indonesia is still lagging behind, even though there have been several related initiatives. This is evidenced by existing national overweight prevention programmes, for example, Gerakan Nusantara Tekan Angka Obesitas (GENTAS) failed to translate into a quality program on a local scale, partly because of a lack of coordination between the central and regional governments and between sectors. According to the World Obesity Federation (2020) Indonesia is one of the countries with the

fastest increasing prevalence of obesity in the last few decades.

One form of intervention to reduce obesity caused by overeating is diet. Several study results prove that interventions in the form of diet or drug therapy and surgery can have an impact on weight loss which has a positive impact on other things such as self-confidence, better interpersonal relationships and increased self-esteem (Taniguchi & Lee, 2014; Tiggemann, 2015; Lutze, Taylor, Brinkworth, Wyld, Syrette, Wilson, Clifton, Noakes, 2013; Karagülle, Yavuz, Gülçiçek, Solmaz, Şentürk, Erdoğan, Çelik & Celebi, 2018).

Each individual has a different way of doing the diet. Therefore Thompson, Heinberg, Altabe (1999) classifies two types of dietary behavior that often occur, namely: First, healthy diet behavior is weight loss that is carried out by changing behavior towards a healthier one, such as changing eating patterns by consuming low-calorie and low-fat foods, and increase physical activity naturally. Muslichah (in Ika, 2022) says that a diet for weight loss should not be arbitrary, such as following the methods that have been successfully used by other people. Individuals cannot imitate popular diet programs because diet programs are personalized as much as possible taking into account individual conditions. Muslichah further said that determining a diet program should be done in consultation with a professional. A healthy diet program is not just losing weight to an ideal position. However, the diet must also pay attention to body composition such as fat and muscle percentage. Therefore, in consultation with a professional, a diet program will be prepared after going through a series of comprehensive assessments.

Second, an unhealthy diet is weight loss that is done by engaging in behaviors that are harmful to health. Such as fasting (outside the intention of worship) or skipping meals intentionally, using weight loss drugs, appetite suppressants or laxatives and vomiting on purpose. The effects of an unhealthy diet program can occur such as disturbed metabolism, weakened immune system, increased ketone production, dehydration, heart problems, skin and hair damage, constipation and lack of energy (Pratiwi, 2021). Seeing the dangers posed by an unhealthy diet, the researchers limited the respondents to this study to those who carried out dietary behavior with professional assistance, namely nutrition specialists.

Parkinson, David, Thiele, (2016) tried to model dietary behavior theory by applying Ajzen's (1988) planned behavior theory. Theory of Planned Behavior (TPB) is the development of the theory of reason action behavior (TRA) which was previously developed by Ajzen and Fishbein (1980). Furthermore, Ajzen saw that there was something lacking in TRA. That shortcoming is perceived behavior control. The purpose of adding this PBC construct is to control individual behavior which is limited by the shortcomings and limitations of the resources used to carry out a behavior. This theory assumes that PBC has motivational implications for interest. Individuals who believe that they do not have the available resources or do not have the opportunity to perform certain behaviors may not have a strong behavioral intention to do so even though they have a positive attitude toward their behavior (Jogiyanto, 2007).

There are several previous model studies on dietary behavior that also developed the TPB model (Conner & Abraham, 2001; Bruijn, Kremes, Vet, Nooijer, Mechelen, Brug, 2007; Bruijn, Brug, Lenthe, 2009; Grønhøj, Larsen, Chan, Tsang, 2012; Zhou, Gan, Knoll, Schwarzer, 2011; Lunn, Nowson, Worsley, Torres, 2014; Zhou, Gan, Hamilton, Schwarzer, 2016; Parkinson, David, Thiele, 2016; Deng, Liu, 2017). Research dealing with various aspects of the theory of planned behavior (Ajzen, 1988, Ajzen, 1991) is reviewed, and some unresolved issues are discussed. In general, this theory is well supported by empirical evidence. Intention to perform various types of behavior can be predicted with high accuracy from attitudes toward behavior, subjective norms, and perceived behavioral control; and these intentions, together with perceptions of behavioral control, are responsible for considerable differences in actual behavior. Attitudes, subjective norms, and perceived

behavioral control have been shown to be associated with a salient set of behavioral, normative, and control beliefs about the behavior, but the exact nature of these relationships remains uncertain (Ajzen, 1991).

This uncertainty can be seen in the inconsistency of the results of a study conducted by Fila and Smith (2006) who found that dietary intentions had no effect on dietary behavior in young Americans. In addition, if you look at the results of previous studies, there are not many studies that have tested theoretical models for dietary behavior, especially in Indonesia, which makes this research important to do.

METHODS

This study uses a quantitative method with a structural equation model approach. The purpose of this study was to test a theoretical model of planning behavior in explaining dietary behavior in obese women. For this reason, the researchers determined the characteristics of the respondents as follows: Individuals with degree 1 obesity with a BMI of 25-29.9, female, following a diet program that focuses on changing dietary patterns from a professional, namely a nutrition specialist and not with comorbid diseases. The sampling technique used is purposive sampling. In this study, the researchers created their own measuring instruments used to measure the constructs in the behavioral planning theory model, namely: attitudes towards behavior, subjective norms, behavioral intentions and dietary behavior. The researcher asked for help from eleven panelists consisting of five psychology lecturers with doctoral degrees and six medical specialists to see the legibility test of this research measuring instrument. The result is that all the items in this study have good relevance to the value of the content validity ratio (CVR) moving from 0.6-1. After carrying out the CVR test, the researchers conducted an exploratory factor analysis (EFA) test with the following results:

Table 1. Test Results Exploratory Factor Analysis (EFA)

Indicator	Number of items	Loading Weight
Dieting Behavior	18 Items	0.859-0.950
Behavioral Intention	5 Items	0.699-0.952
Attitude towards behavior	4 Items	0.828-0.911
Subjective norm	5 Items	0.859-0.890
Perceived Behavior Control	6 Items	0.831-0.902

Furthermore, the results of the item discrimination power test and the reliability of the measuring instrument in this study can be seen in table 2 below:

Table 2. Results of Item Discrimination and Reliability Tests

Variabel	Total Item Correlation	Alpha Cronbach
Dieting Behavior	0.853-0.940	0,989
Dietary Behavioral Intentions	0.843-0.927	0.985
Attitudes towards Behavior	0.754-0.848	0.942
Subjective Norm	0.799-0.849	0.934
Perceived Behavior Control	0.852-0.917	0.962

RESULTS AND DISCUSSION

This study aims to test the theory of planned behavior (TPB) in obese women. From the results of testing the structural equation using the Amos application, the results are as follows:

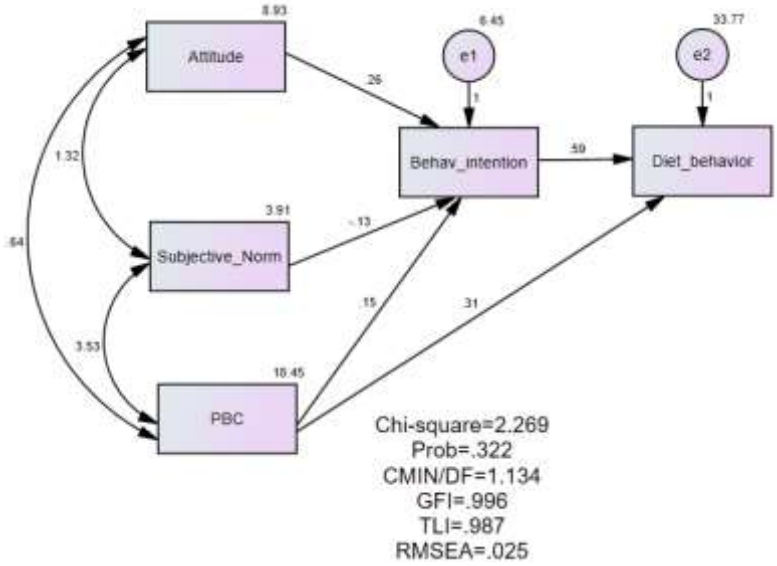

Figure 1. Research Model

In Figure 1 above it can be seen that the model proposed in this study has compatibility between the data in the field and the existing theory. This is evidenced by the scores on the six criteria set by the researcher, all of which meet the criteria shown in table 3 below:

Table 3. Conformity of Value with the Criteria of Goodness of Fit Theoretical Research Model

Criteria	Provision	Result	Information
Chi-Square	As small as	2.269	In accordance
p-value	≥ 0.05	0.322	In accordance
RMSEA	≤ 0.08	0.025	In accordance
GFI	≥ 0.9	0.996	In accordance
TLI	≥ 0.9	0.987	In accordance

In other words, the dietary behavior of obese women is influenced by behavioral intentions, in which behavioral intentions are formed by attitudes toward behavior, subjective norms and perceived behavioral control.

In 1997 Brug, Glanz and Kok conducted a study of 739 obese adults in the Netherlands and the results showed that attitudes toward eating vegetables predicted dietary behavior. The results of the study prove that the dimensions of behavioral intention can predict dietary behavior as seen from self-reports to eat healthy foods, namely vegetables. Nineteen years later a study was conducted by Chan, Prendergast and Ng (2016) on 635 obese individuals explaining that with the concept of behavioral planning theory (TPB) behavioral intention can predict a person's dietary behavior which is characterized by eating healthy foods for weight loss.

O'Neal, et al (2012) conducted a study on dieting African adults and found that dietary behavioral intentions had a strong influence on vegetable and fruit eating behavior. This study also explains that the behavioral planning theory model (TPB) can explain how dieting behavior in obese people. Another study which explains that TPB can explain dietary behavior is a study conducted by Brujin, et al (2007) showing results that behavioral intention will lead to behavior for dieting, in this study dietary behavior was assessed by eating healthy fruits.

CONCLUSION

This study aims to test a theoretical model of planning behavior to xplain dietary behavior in obese women. The results show that the theoretical model of planning behavior can explain dietary behavior in obese women and the proposed theoretical model is in accordance with the theory and data in the field. This study provides advice to several parties, including research respondents who are advised to remain consistent in carrying out their current diet program to be free from obesity which can cause several dangerous cardiometabolic diseases. For hospitals to be able to provide nutritional counseling to the community throughout the community, starting from the lowest level, so that they understand obesity prevention and can avoid obesity. It is hoped that the government can issue a policy so that nutrition specialists are available at the existing health centers so that services for obesity are easily accessible. It is hoped that future research will be able to see the shortcomings in this research, such as: this study only looked at respondents who did not have comorbidities. It is hoped that future researchers can look at respondents who also have the disease in order to provide a more complete picture.

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