
Prophet's Eating Behaviors Patterns and Body Composition Status Among Religious Lecturers

Andi Faradilah¹, Zulfahmi Alwi², Akbar³

¹Medical & Health Science Faculty, State Islamic University of Makassar, Indonesia

²Law & Syariah Faculty, State Islamic University of Makassar, Indonesia

³Ushuluddin Adab and Dakwah Faculty, State Islamic Institute of Kendari, Indonesia

Nowadays, prevalence of obesity has increased dramatically and become a worldwide problem. Obesity is the underlying cause of many metabolic diseases such as diabetes, hypertension, chronic kidneys, cardiovascular problems, and stroke. Obesity is mainly influenced by eating behavior patterns. In Islamic teaching, a Muslim is advised to practice the Prophet or Muhammad's eating behavior patterns, as explained in the prophetic traditions, that contain guidelines to keep people healthy. Therefore, the transformation to follow the prophet Muhammad's eating behavior patterns will be the alternative way to prevent obesity. The purpose of this study is to find the association between knowledge, attitude, and behavior of religious lecturers regarding eating behaviors patterns of the Prophet and their body mass index (BMI) status. This study was a cross sectional study involving religious lecturers at the State Islamic University of Alauddin as the subjects. The participants were asked to answer questionnaires and their body compositions were measured. The inclusion criteria were members of the religious lecturer of the university and agreed to participate in the study. Subjects with permanent or temporary disability of body composition measurement were excluded from the study. There were 123 participants met the inclusion criteria, the knowledge and the attitude regarding eating behaviors patterns according to the prophetic tradition were good (83.7 %; 72.4 %) respectively. Overweight and/ or obesity were observed in 99 participants (81%). Moreover, the visceral fat measurement showed that 39 participants have an excessive visceral fat. There was an association between body composition and eating behaviors of subjects practicing Prophet's eating behaviors patterns. This study showed that the application of the Prophet's eating behaviors patterns has beneficial effects to prevent obesity.

Keywords: eating behavior, body mass index, obesity, visceral obesity, abdominal circumference.

1. INTRODUCTION

Obesity has become a worldwide problem. It is one of major causes of metabolic complication disease. Its prevention and treatment include change in dietary habits. Since 1980, WHO has recorded an increasing number in the obesity prevalence. In 2014, WHO published the finding that there were 1.9 million adults with obesity around the globe. The WHO's data was similar to Indonesia's case where its number of obesity continuously increased. By 2016, the obesity in Indonesia reached 26.3%, and surpassed undernourished people (11.1%) (Infodatin, 2016). *Based on the mentioned facts above, it would be important and benefit to provide some solutions that can be applied to reduce the increasing number of obesity. The ideas and solution might be taken from local wisdoms, cultural values, and religious teaching combine with the recent findings of medical theory, technology and treatment, for example the holistic management of obesity.*

Brown and Wimpenny (2011) argue that the holistic management combine with medical theoretical perspectives will deliver better treatment effect to those with obesity. This approach will focus on people's obesity from several aspects such as changes in behavior, diet, physical activity, pharmacotherapy, and surgery. In addition, studies have shown that behavioral changes will result in maintaining weight loss (A. John Orzano, et al., 2004). Other studies showed the ability to control "emotional eating" will maintain longer weight loss compared to diet and hunger control (Nicholas P Hays, et al., 2002).

In line with this, the Islamic teaching, which its sources are also taken from the prophetic or Muhammad's tradition (*hadits*), also explains 'the emotional eating' especially in a concept of eating behavior patterns. This prophetic tradition of eating behavior concept is advised to Moslem and people to be used as a guidance regarding their eating behaviors. *The guidance has been proved to be beneficial for human health, at least the history of Muhammad's as the prophet of Islam showed an outstanding fact that he had never had critical diseases or illnesses until he died at the age of 63 (Hazleton, 2014; At Tirmidzi Hadits No. 2554).* If Moslems apply and practice the knowledge, attitudes and eating behaviors of the Prophet, they could prevent themselves from obesity and other diseases related. This study aims to analyze the association of the knowledge, attitude, and behavior of the Moslem regards the Prophet or Muhammad's eating behavior to their body composition.

2. METHODS

This was a cross sectional study. The subjects of the study were lecturers of State Islamic University of Alauddin, Indonesia. The inclusion criteria were lecturers who agreed to participate and the subjects were excluded if the questionnaire was not completely filled and having a temporary or permanent disability. The body composition measurement (body mass index, abdominal circumference, and body fat) and questionnaire were taken in the same period. Data were analyzed using chi square test.

3. RESULT

There were 123 subjects following the study, which consisted of 63 men and 60 women (table 1). The mean age of the samples was 46 years old and the body mass index (BMI) was 26.11 kg/m². The mean waist to hip ratio (WHR) were 88 cm and the total of fat body were 29 %.

Table 1. Samples Characteristics

No	Variables	Mean ± SD
1	Gender	
	Men	63 (51.2)*
	Women	60 (48.8)*
2	Age	46.46 ± 8.6
3	BMI	26.11 ± 3.6
4	WHR	88.73 ± 8.8
5	Body fat	29.97 ± 7.8

*n(%)

The abnormal mean value of body composition was linear to the lack of knowledge and behavior (table 2). The samples with abnormal values of the BMI, WHR, and the body fat were greater than normal samples (78 vs 45; 82 vs 41; 88 vs 35). The knowledge and the behavior related to Rasulullah's eating behavior were low (74 vs 49; 105 vs 18). There was a trend of the association between the lack of the knowledge and WHR abnormality (p : 0.09).

Table 2. The Knowledge and Behavior of the Rasulullah's Eating Behavior and The Body Composition

No	Variable	BMI		p*	Abdominal circumference		p*	Body fat		p*
		Normal n (%)	Overweight/ Obesity n (%)		Normal n (%)	Abnormal n (%)		Normal n (%)	Abnormal n (%)	
1	Knowledge									
	Baik	18 (40)	31 (39.7)	0.97	12 (29.3)	37 (45.1)	0.09	15 (42.9)	34 (38.6)	0.66
	Kurang	27 (60)	47 (60.3)		29 (70.7)	45 (54.9)		20 (57.1)	54 (61.4)	
	Total	45 (100)	78 (100)		41 (100)	82 (100)		35 (100)	88 (100)	
2	Behavior									
	Baik	4 (8.9)	14 (14.6)	0.17	3 (7.3)	15 (18.3)	0.10	3 (8.6)	15 (17.0)	0.23
	Kurang	41 (91.9)	64 (82.1)		38 (92.7)	67 (81.7)		32 (91.4)	73 (83.0)	
	Total	45 (100)	78 (100)		41 (100)	82 (100)		35 (100)	88 (100)	

*chi square test

4. DISCUSSION

The knowledge and behavior regarding Rasulullah's eating behavior were categorized low, despite all the subjects were agreeing about the Rasulullah's eating behavior (data were not shown). It seemed that though they agreed to the behavior unfortunately they did not apply the behavior. What is interesting is that since the subjects are coming from a religious background, we assumed that they not only have a good knowledge, but also implement the guidance, which are not reflected in the result.

This study showed the trend toward significance between the knowledge level and abdominal circumference. The less knowledge contributes to the higher abdominal circumference. The association between the lack of knowledge, the low level of application and the abnormal result of the body composition is very obvious; we found 2/3 of the subjects in this study had an abnormal body composition. Review from previous studies have demonstrated that the obedience to the religion will affect the healthy behavior such as healthy eating and alcohol consumption. Annual review (Sternthal, M. J., 2010) Linda K. George (2002). Meanwhile, a study on Ramadan fasting showed the increase in HDL-cholesterol Maislos et al. (1993, 1998) and Apo-1 Maislos et al. (1993) Adlouni et al. (1997; 1998 (Akanji et al., 2000), suggested that Ramadan might change the eating behavior of the people (Maislos et al. (1993). Deliens, 2014 found that religion values like obedience and discipline are the factors influence eating behavior in university student. Eating behavior is important factor causing the obesity, whereas adding behavior treatment in the obesity management will maintain longer weight loss (Nicholas P Hays, etc., 2002). Binge eating as one of the eating disorder influence weights regain within 24 months of study, another randomized control trial using the eating behavior meeting therapy also found significant weight loss more than..... (Reference). In accordance to the finding of this study that confirmed the lower religion knowledges and the application of the daily practices affect the body compositions, this study is a new evidence to support the previous finding regarding the urgency of religious values to influence person behavior including eating behavior.

Many factors other than eating behavior may contribute to obesity: genetics, diet, and physical activity. However, this study was not analyzed physical activity as another cause of obesity that might impact the body composition. The strength of this study are the subjects were coming from a religious background and were using primary data. The limitation includes the small sample size and questionnaire methods.

5. CONCLUSION

There are some finding in this study, the first is the fact that the religious background is not assured to the best knowledge and behavior regarding Prophet's eating behavior, and the second is the abnormal body composition found in the 2 /3 subjects probably affected by the lack of knowledge and low application of the Prophet's eating behavior.

ACKNOWLEDGEMENT

6. REFERENCES

- Attarzadeh Hosseini, S. R., Motahari Rad, M., & Hejazi, K. (2014). The Effects of Ramadan Fasting and Physical Activity on Body Composition and Hematological-Biochemical Parameters. *روزه داری و سلامت - Journal of Fasting And Health*, 2.
- Azizi, F. (2010). Islamic fasting and health. *Annals of nutrition and metabolism*, 56 (4), 273-282.
- Farshidfar, G., Yousfi, H., Vakili, M., & Asadi Noughabi, F. (2006). The effect of Ramadan fasting on hemoglobin, hematocrit and blood biochemical parameters. *Journal of Research in Health Sciences*, 6 (2), 21-27.
- George, L. K., Ellison, C. G., & Larson, D. B. (2002). Explaining the relationships between religious involvement and health. *Psychological inquiry*, 13 (3), 190-200.
- Orzano, A. J., & Scott, J. G. (2004). Diagnosis and treatment of obesity in adults: an applied evidence-based review. *The Journal of the American Board of Family Practice*, 17 (5), 359-369.
- Sternthal, M. J., Williams, D. R., Musick, M. A., & Buck, A. C. (2010). Depression, anxiety, and religious life: A search for mediators. *Journal of Health and Social Behavior*, 51 (3), 343-359.
- Carly R. Pacanowski, Meghan M. Sensor, Kristin Oriogun, A. Lauren Crain, and Nancy E. Sherwood, "Binge Eating Behavior and Weight Loss Maintenance over a 2-Year Period," *Journal of Obesity*, vol. 2014, Article ID 249315, 9 pages, 2014. Do: 10.1155/2014/249315
- Batra, P., Das, S. K., Salinardi, T., Robinson, L., Saltzman, E., Scott, T., Pittas, A. G. And Roberts, S. B. (2013), Eating behaviors as predictors of weight loss in a 6 months weight loss intervention. *Obesity*, 21: 2256-2263. Do: 10.1002/obi. 20404.