



## CHALLENGES TO PREVENT UNHEALTHY EATING BEHAVIORS OF ADULTS

**Natalia Elisa Rakinaung\*, Helly Budiawan, Martinus Lazar**

Faculty of Nursing, Universitas Katolik De La Salle Manado, Jl. Kairagi I Jl. Kombos-Manado, Kairagi Satu, Kec. Mapanget, Kota Manado, Sulawesi Utara 95253, Indonesia  
[nrakinaung@unikadelasalle.ac.id](mailto:nrakinaung@unikadelasalle.ac.id)

### ABSTRACT

Preventing non-communicable diseases has always been enormous challenge for health workers, and unhealthy eating behavior is one of the causes of several non-communicable diseases such as hypertension, diabetes mellitus, and heart diseases. Nowadays are still many adults who adapt unhealthy eating behavior and this can also affect the family and everyone in the environment. The challenges of health workers in educating adults to have healthy eating behaviors are related to their habits, culture and awareness which are influenced by gender, marital status, knowledge about healthy food, family income, and ethnicity of adults. The aim of this study is to identify the factors related to unhealthy eating behaviors of adults in Tomohon City, North Sulawesi, Indonesia. This cross-sectional study was conducted to Adults in Woloan Village, Tomohon City. The Respondent in this study were 36 adults aged between 23 and 50 years, was taken with purposive sampling technique, completed questionnaire on sociodemographic factors (age, gender, marital status, and family income), knowledge of healthy food, and eating behavior. The data analysis using descriptive analysis and chi-square test. The study revealed that ethnic groups not related with eating behavior. However, knowledge of healthy food and family income were significant related to unhealthy eating behavior of adults. Knowledge of healthy food and family of adults are significant factors that can trigger unhealthy eating behavior of adults, and these also are considered as challenges for health workers to provide suitable health interventions in preventing unhealthy eating behavior of adults.

**Keywords:** adults; eating behavior; food

#### First Received

18 May 2022

#### Revised

19 June 2022

#### Accepted

12 August 2022

#### Final Proof Received

18 August 2022

#### Published

28 August 2022

#### How to cite (in APA style)

Rakinaung, N., Budiawan, H., & Lazar, M. (2022). Challenges to Prevent Unhealthy Eating Behaviors of Adults. *Indonesian Journal of Global Health Research*, 4(3), 567-572.  
<https://doi.org/10.37287/ijghr.v4i3.1125>.

## INTRODUCTION

A healthy eating behavior is a very important factor to support the health status of individuals and community in order to stay healthy and have prime quality of life. This can achieve by healthy diet. Diet is a source of various information that can provide an overview of the type and amount of food consumed every day by individuals and a group of people (Indrawati, et.al. 2022). Healthy eating behavior is one of the important factors to improve physical and mental health (Kabir, et.al. 2018). A healthy eating behavior includes the consumption of natural and fresh foods, vegetables and fruit, as well as foods that contain lots of vitamins and minerals (Sogari, et.al. 2018). A healthy eating behavior is where individuals daily consume foods that have balanced nutrition which can improve the health status of individuals and society.

Unhealthy eating behavior can cause some non-communicable diseases that have millions case in the world. An unhealthy eating behavior can cause obesity (Fierda, et.al. 2021) which is the main cause of degenerative and non-communicable diseases, one of which is type 2

diabetes mellitus. Foods that can cause the obesity are fatty foods, fast food, food preservatives, flavorings, and offal (Alkerwi,2014). In 2018 people with Type II Diabetes mellitus accounted for 90% of people with diabetes worldwide from around 463 million people with diabetes worldwide and WHO data shows 1.13 billion people with hypertension in the world (Kemenkes RI, 2018). An unhealthy diet can also cause hypertension and nowadays urban communities suffer from hypertension more than rural areas due to unhealthy eating behavior and high obesity in urban areas (Medyna, et.al.2022). This is because busy work activities in urban areas lead to a lack of time and attention from the community to adapt a healthy eating behavior. Hypertension and Type II Diabetes mellitus can be prevented by implementing a nutritious and healthy eating behavior (Chatterjee,et.al.2021). Therefore, it can be concluded that with healthy eating behavior, individuals and community can prevent the risk of developing non-communicable diseases such as diabetes mellitus and hypertension.

There are several factors that can lead people to do unhealthy eating behavior. Eating behavior are influenced by individual, social and environmental factors (Alzahrani et.al. 2020). Knowledge and awareness of individuals are factors that greatly influence individual behavior, including eating behavior. Knowledge of a healthy diet and good nutrition is an important part of health literacy and low health literacy is a significant factor causing weak health conditions (Spronk, et.al.2014). Social and environmental factors are also influenced by the culture of the individual's ethnicity and environment where they live and these factors are also affect a person's eating behavior, cultural factors can be a determinant for the type of food consumed and the availability of food in an area (Zulkarnaen, et.al.2022). Knowledge and cultural factors are determining an individual to adapt a dietary habit, where these factors can be a driver of public awareness for healthy living but also become a challenge for health workers to provide the best intervention for the community in improving healthy eating behavior.

Unhealthy and irregular eating behavior have become a habit for many people, many of them are choose foods according to their tastes without considering the risks in the future (Natawirandry, et.al.2022). A healthy eating behavior can be achieved by increasing individual awareness and knowledge about the importance of eating behavior to improve a better quality of life (Lestari & Winarningsih, 2022). This study aims to determine what factors are significantly related to the eating behavior of adults which is also become challenges for health workers to provide the best service for the community in order to prevent unhealthy eating behavior and improve people's behavior in implementing healthy eating behavior to achieve optimal quality of life.

## **METHOD**

This descriptive study was conducted on 36 adults age 23-50 by purposive sampling technique in Woloan III district, Tomohon City, North Sulawesi, Indonesia. The instrument in study used an online self-administered questionnaire which include questions on their demographic characteristics (Gender, marital status, education, monthly income, ethnicity), knowledge about healthy food, and eating behavior in two weeks. Data in this research were analyzed using descriptive statistics, Chi-square test by using computer program.

## **RESULTS**

Table 1. describes the characteristics of the respondents in this study where majority of gender are women (75%) than men (25%) who are involved in this study. Respondents who

are married (58.3%) are more than single (41.7%). The majority of respondents have a high school education (88.9%) than university (11.1%). When viewed from the monthly income, most respondents earn less than the regional minimum wage (66.7%) than those who have a monthly income more than the regional minimum wage (33.3%), where the regional minimum wage for North Sulawesi Province in 2022 is IDR. 3,310,723. There are 3 ethnic groups in this study; Minahasa (75%) which is the native of Tomohon City and there are also Sangihe (16.7%) and Javanese (8.3%). This study also examined knowledge about healthy food, and the results showed that the majority of respondents had good knowledge (61.1%) compared to respondents who had less knowledge about healthy food (38.9%).

Table 1.  
Respondent characteristics (n = 36)

No	Characteristics	f	%
1	Gender		
	Male	9	25
	Female	27	75
2	Marital Status		
	Single	15	41.7
	Married	21	58.3
3	Education		
	High school	32	88.9
	University	4	11.1
4	Monthly Income		
	< Regional Min. Wage	24	66.7
	> Regional Min. Wage	12	33.3
5	Ethnic Group		
	Minahasa	27	75.0
	Sangihe	6	16.7
	Jawa	3	8.3
6	Knowledge Healthy Food		
	Good	22	61.1
	Poor	14	38.9

Table 2 shows the relationship between the independent variable and the dependent variable in this study. The results of statistical testing using the Chi-Square test showed that knowledge about healthy food and monthly income had a significant relationship with the eating behavior of respondent ( $p\text{-value} = 0.00$ ), while the ethnic group did not relate to the eating behavior of respondent ( $p\text{-value} = 0.51$ ). Data in table 2 also shows that the respondents from ethnic groups (Minahasa 38.8%, Sangihe 5.6%, Javanese 5.6%), have monthly income less than regional minimum wage (41.7%), and who have less knowledge about healthy food (33.3%) are respondents who have unhealthy eating behavior.

Table 2  
Correlation between Variables

No	Variables	Eating behavior				<i>p-value</i>
		Good	%	Poor	%	
1	Ethnic Group					
	Minahasa	13	36.1	14	38.8	0.51
	Sangihe	1	2.8	2	5.6	
Jawa	4	11.1	2	5.6		
2	Monthly Income					
	< Regional Min. Wage	9	25	15	41.7	0.00
> Regional Min. Wage	9	25	3	8.3		
3	Knowledge Healthy Food					
	Good	16	44.4	6	16.7	0.00
	Poor	2	5.6	12	33.3	

### DISCUSSION

The ethnic group does not have a significant relationship with eating behavior because it is influenced by the eating habits in their environment, where the majority ethnic in Woloan III Village are Minahasa which is the native ethnic who has many events with lots food. This is also influenced by a shift in regional eating habits due to the entry of foreign food, for example preserved food and fast food (Zulkanaen, et.al. 2022) which can trigger unhealthy eating behavior and this type of food is also consumed by many respondents in this study.

Monthly income has a significant relationship with the eating behavior of the respondents in this study. Where the results of this study indicate that the majority of adults who have low incomes have poor eating behavior, the researchers assume that people who have low incomes may judge that healthy food is expensive food to prepare. This is also in line with previous research which says that a family in preparing food is adjusted to their income and families who have low income tend to consume foods that have less nutrition (Friyayi, A. 2021). So it can be concluded that adults and their families need to be given more knowledge about the types of food ingredients that are healthy and affordable and available in their area.

Knowledge about healthy food has a significant relationship with eating behavior. The majority of respondents who have good knowledge about healthy food also have a good eating behavior. This is also in line with previous research which says that the higher knowledge of individual about healthy food the better their eating behavior will be (Elvira, et. al. 2021). Therefore, adults should have good knowledge about food with good and balanced nutrition which will be the basis for thinking to adapt good eating behavior in daily life.

### CONCLUSION

The results of this study show that that ethnic groups are not related to eating behavior. Meanwhile, monthly income and knowledge about healthy food have a significant relationship with eating behavior of adults. Furthermore, in the future this research can use as reference to designing health intervention to prevent unhealthy eating behavior of adults and community in general.

### ACKNOWLEDGEMENTS

We thank to government and the respondents of this study in Woloan III, Tomohon city, North Sulawesi for give permit to do this study. We thank to Universitas Katolik De La Salle Manado for support and funding this research.

## REFERENCES

- Alkerwi, (2014). Consumption of ready-made meals and increased risk of obesity: findings from the Observation of Cardiovascular Risk Factors in Luxembourg (ORISCAVLUX) study. *British Journal of Nutrition*. 113:270-277.
- Alzahrani, S. H., Saeedi, A. A., Baamer, M. K., Shalabi, A. F., & Alzahrani, A. M. (2020). Eating habits among medical students at king abdulaziz university, Jeddah, Saudi Arabia. *International Journal of General Medicine*, 13, 77–88.
- Chatterjee, S., Davies, M. J., Heller, S., Speight, J., Snoek, F. J., & Khunti, K. (2018). Diabetes structured self-management education programmes: a narrative review and current 103 *Jurnal Keperawatan Muhammadiyah* 7 (2) 2022 innovations. *The Lancet Diabetes & Endocrinology*, 6 (2), 130–142.
- Elvira, N., Emilia, E., Hanum, Y., Mutiara, E., & Dinar, F. (2021). Hubungan Pengetahuan Gizi Seimbang Dengan Pola Makan Siswa Kelas X Smk Swasta Imelda Medan. *JURNAL GIZI DAN KULINER (JOURNAL OF NUTRITION AND CULINARY)*, 1(1), 16-22.
- Fierda, D. P., Rahayu, F., Jannah, G. R., & Rejeki, D. S. S. (2021). Faktor Risiko Penyakit Diabetes Tipe Ii Di Daerah Pedesaan.
- Kabir, A., Miah, S., & Islam, A. (2018). Factors influencing eating behavior and dietary intake among resident students in a public university in Bangladesh: A qualitative study. *PLoS ONE*, 13(6), 1– 17.
- Friyayi, A. (2021). Hubungan Pola Pemberian Makan Dan Pendapatan Keluarga Dengan Kejadian Stunting Pada Balita: Literature Review. *Borneo Student Research (BSR)*, 3(1), 391-404.
- Indrawati. L, Werdhasari A., and Kristanto A.Y, (2009). “Hubungan Pola Kebiasaan Konsumsi Makanan Masyarakat Miskin dengan Kejadian Hipertensi di Indonesia,” *Media Penelit. dan Pengemb. Kesehat.*, vol. 19, no. 4, 2009.
- Kemenkes RI. Laporan Nasional Riset Kesehatan Dasar. (2018). Badan Penelitian dan Pengembangan Kesehatan. 2018. p. 221–2. Available from: [http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan\\_Nasional\\_RKD2018\\_FINAL.pdf](http://labdata.litbang.kemkes.go.id/images/download/laporan/RKD/2018/Laporan_Nasional_RKD2018_FINAL.pdf)
- Lestari, M. W., & Winarningsih, W. (2022). Sanitasi Makanan dan Pola Makan di Pondok Pesantren Sunan Drajad Lamongan. *Dharmakarya*, 11(2), 86-88.
- Medyna, I., Rizqi, M., Rahmawati, D., Prilia, D. V., & Noor, I. H. (2022). PENYULUHAN PENCEGAHAN HIPERTENSI DENGAN DENGAN DISIPLIN (DIET DASH, ISI PIRINGKU, PHBS UNTUK LINDUNGI KELUARGA DARI HIPERTENSI). *SELAPARANG Jurnal Pengabdian Masyarakat Berkemajuan*, 6(2), 842-847.

- Natawirarindry, C., Stevi, S., & Triandhini, R. R. (2022). Pola Makan dan Obesitas Sentral pada Pasien Penderita Diabetes Melitus Tipe 2 di RSUD Tora Belo Kabupaten Sigi, Provinsi Sulawesi Tengah. *Jurnal Keperawatan Muhammadiyah*, 7(2).
- Spronk, I., Kullen, C., Burdon, C., & O'Connor, H. (2014). Relationship between nutrition knowledge and dietary intake. *British Journal of Nutrition*, 111(10), 1713–1726.
- Sogari, G., Velez-Argumedo, C., Gómez, M. I., & Mora, C. (2018). College students and eating habits: A study using an ecological model for healthy behavior. *Nutrients*, 10(12), 1–16.
- Zulkarnaen, T. A., Dahlan, M., & Ahmadin, M. (2022). Konstruksi Sosial, Budaya dan Ekonomi pada Pola Makan Masyarakat Kelurahan Benteng Somba Opu Kabupaten Gowa. *Jurnal Kajian Sosial dan Budaya: Tebar Science*, 6(2), 97-104.
- Zogara, A. U., & Nur, A. (2022). Faktor-Faktor Yang Berhubungan Dengan Pola Makan Mahasiswa Pada Masa Pandemi Covid-19 di Kota Kupang. *CHMK HEALTH JOURNAL*, 6(2), 410-415.