

Nutritional Status, Healthy Living Behavior, And Level of Physical Activity of Prospective Foreign Workers Kenshine Globalindo Indonesia

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Abstract. Potential foreign employees are beneficial to both the nation and their family. Prospective overseas employees contribute significantly to the nation's foreign exchange and the family's financial stability. Prospective foreign workers must be in good physical shape because being healthy is a need. This study intends to assess the foreign worker candidates at the Kenshine Globalindo Indonesia Job Training Institute's (1) nutritional status, (2) healthy lifestyle, and (3) level of physical activity. Descriptive research is what this study is. 44 research subjects participated in this study, which was done at the Kenshine Globalindo Indonesia Job Training Institute. The BMI, a measure of a healthy lifestyle, and a measure of physical activity were the instruments employed in this study to assess nutritional status. The data collection technique uses a questionnaire with Google Form. Data analysis technique using descriptive percentages. The results showed that (1) the nutritional status of prospective foreign workers with an average Normal category of 26 people or 59%,(2) a healthy lifestyle of prospective foreign workers with an average category of 17 people or 39%, and (3) the activity level of prospective foreign workers with an average of Good category is 26 people or 59%.

Keyword: Nutritional status, healthy lifestyle, level of physical activity, prospective foreign workers

1. Introduction

Health is one measure of the level of welfare of a nation. The higher the level of health, the higher the level of welfare of the nation. The importance of health is stated in the strategic plan of the Ministry of Health (Renstra Kemenkes) for 2020-2024, that in Presidential Regulation Number 18 of 2020 concerning RPJMN for 2020-2024, mandates nine national development missions, one of which is improving the quality of Indonesian people. To realize this mission, every Indonesian citizen needs to improve the quality of life by maintaining health.

Body Mass Index (BMI) is closely related to health, this is because BMI is one way to measure and monitor a person's nutritional status simply (Astuti, Yuliana, and Utami, 2021). BMI is categorized into 5 categories, namely, underweight < 18.5, normal 18.5 - 22.9, overweight 23 - 24.9, obesity I 25 - 29.9, and obesity II \geq 30.0. The main factors that affect BMI are age, sex, lifestyle, genetics, diet, and physical activity [1].

Changes in BMI can have an impact on a person's health status which can significantly affect his quality of life. An imbalance between food intake and energy that comes out will cause a person to be malnourished (underweight, overweight, and obesity). Being overweight is an excessive level of nutritional status that will depend on health so that it can reduce a person's quality of life [2].

The problem of obesity is one of the main risk factors for various non-communicable diseases such as cardiovascular disease, cancer, and diabetes militus. Noncommunicable diseases are responsible for > 70% of deaths worldwide, making obesity a major risk factor for morbidity and mortality worldwide. As a major risk factor for dangerous diseases, obesity also has a high prevalence with an average prevalence of obesity in adults worldwide of 19.5% [3].

Based on data from the Central Statistics Agency (BPS) on the prevalence of obesity in the population aged > 18 years by sex, there was an increase from 2013-2018. In 2013 the prevalence of obesity was 19.6% of men and women 32.9%, in 2016 the prevalence of obesity was 24% of men and women 41.6%, in 2018 the prevalence of obesity was 26.6% of men and women 44.4% (BPS, 2018). Based on data from the Central Statistics Agency (BPS) on the prevalence of obesity in the population aged > 18 years by sex, there was an increase from 2013-2018. In 2013 the prevalence of obesity was 19.6% of men and women 32.9%, in 2016 the prevalence of obesity was 24% of men and women 41.6%, in 2018 the prevalence of obesity was 26.6% of men and women 44.4% (BPS, 2018). Meanwhile, according to data from the Indonesian Ministry of Health (Renstra Kemenkes) on the obesity epidemic in Indonesia that 13.5% of adults aged 18 years and over are overweight, while 28.7% have obesity (BMI \geq 25), and based on the 2015-2019 RPJMN indicators as many as 15.4% are obese (BMI \geq 27).

Looking at the high prevalence of obesity in Indonesia is a serious problem, so obesity prevention is very important. To prevent obesity problems, one of them is by improving lifestyle or lifestyle. Lifestyle plays a very important role for health. In sociology, lifestyle is life for a person [4]. Lifestyle is a long-term choice. There are various efforts to implement a healthy lifestyle, namely by maintaining a healthy food intake pattern with diet and nutrition, exercising regularly, choosing the right supporting nutrition and joining the community to get support from the same people. By making these various efforts and attitudes, a healthy quality of life can be obtained and can create a positive environment. The application of a healthy lifestyle needs to be applied to all groups ranging from young children, adolescents, adults, and the elderly.

The implementation of a healthy lifestyle is still a serious challenge in Indonesia. This is marked by one of them the low participation in sports in Indonesia. According to the results of the Socio-Cultural Education Module (MBPS) survey in 2018, it

shows that the participation rate of people exercising nationally is 31.9%. Of the 34 provinces, 12 provinces (35.29%) with scores above the national average and 22 provinces (64.70%) with average scores below the national average. The decline in sports participation among adolescents is partly due to the development of technology, this causes someone to be less active. Excessive use of devices has a negative side in adolescents. High sedentary time in front of layers, lack of physical activity, and poor diet can affect the nutritional status of adolescents [5].

In addition to participating in regular exercise, the application of a healthy lifestyle also needs to be accompanied by maintaining a pattern of healthy and nutritious food intake. Showed that changes in the school food environment, such as a ban on drinking overly sweetened beverages and an increase in the availability of fruits and vegetables led to a significant decrease in the prevalence of obesity (Pineda et al. 2019). Showed that a combination of diet along with exercise can reduce BMI z-scores in adolescents [6]

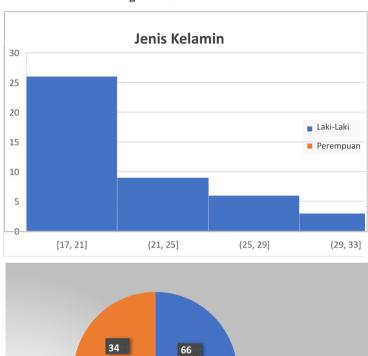
From the explanation above, this researcher aims to determine (1) nutritional status, (2) healthy living behavior, and (3) physical activity level of prospective foreign workers Kenshine Globalindo Indonesia Job Training Institute.

2. Material and Methods

This research is a descriptive research, this research was conducted at the Kenshine Globalindo Indonesia Job Training Institute with 45 research subjects. The instruments used in this study were Body Mass Index (BMI) to determine nutritional status, healthy lifestyle instruments, and instruments to determine the level of physical activity. Data retrieval technique using questionnaires with google form. Data analysis techniques use percentage descriptive.

3. Result

Figure 1. Gender distribution



34 66 %

Figure 2. Age distribution

Tabel 1. Descriptive Age Statistics

N	Minimum	Maximum	Mean	Std.
				Deviation
45	17	33	22,20	4,450

Based on figure 1. It can be known that the number of subjects in this study was 45 people. The distribution of sex is, men by 66% or 30 people, while for women by 34% or 15 people. Based on table 1 and figure 2. It can be known that the average age in the subjects was $22,20\pm4,450$.



Figure 3. Nutritional Status

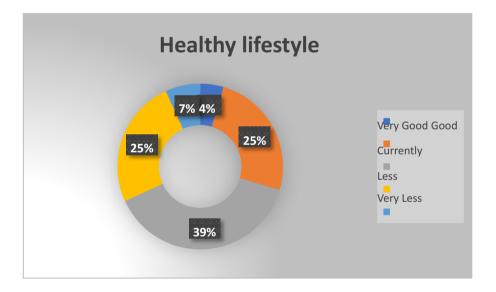


Figure 4. Healthy lifestyle

Based on figures 3 and 4, it can be seen that the nutritional status of most subjects falls into the normal category by 59% or a total of 26 people. While a healthy lifestyle, most subjects fall into the moderate category by 39% and only 4% of subjects fall into the category of a very good healthy lifestyle.

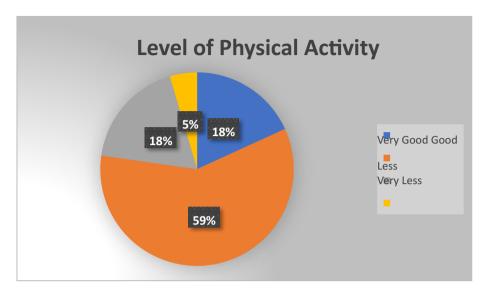


Figure 5. Level of Physical Activity

Based on figure 5. It can be seen that the level of physical activity of most subjects falls into the good category of 59%.

4. Discussion

Health is very important for everyone. Maintaining health in productive age will support productivity and quality of life. According to the Indonesian Ministry of Health, the productive age is between the ages of 20-59 years. It is known that the average age of subjects in this study included productive age. Productive age is characterized by the ability to carry out daily activities effectively and efficiently. The health of the productive age is greatly influenced by a healthy lifestyle, such as healthy and balanced food, regular physical activity, and effective stress management.

Lifestyle plays a very important role for health. In sociology, lifestyle is life for a person [4]. Lifestyle is a long-term choice. There are various efforts to implement a healthy lifestyle, namely by maintaining a healthy food intake pattern with diet and nutrition, exercising regularly, choosing the right supporting nutrition and joining the community to get support from the same people. By making these various efforts and attitudes, a healthy quality of life can be obtained and create a positive environment. There are two concepts of a healthy lifestyle, the first concept focuses on ways of human behavior related to health-improving actions that allow a person to maintain their health. While the second concept that to maintain a healthy lifestyle requires human activities themselves which aim to maintain and maintain health. In other words, a healthy lifestyle includes everything that helps a person to carry out his social, professional, household functions in optimal conditions for his health and development [7].

The application of a healthy lifestyle such as physical activity is one way to maintain physical health and maintain quality of life to stay healthy and fit throughout the day. The results of this study are in line with previous research that explains that physical activity is aimed at reducing sedentary lifestyles, can increase calorie expenditure, and control weight. However, physical activity needs to be done regularly to get good results [8]. In addition, the application of a healthy lifestyle by regulating food intake patterns is also important. Lack of physical activity and poor eating habits lead to the prevalence of overweight with the consequent high risk of metabolic disease complications [9].

Body weight and body mass index (BMI) are parameters that provide nutrition-related information, and are generally known to be underweight, overweight, and obese, this is associated with health consequences [10]. Changes in BMI can have an impact on a person's health status which can significantly affect his quality of life. An imbalance between food intake and energy that comes out will cause a person to be malnourished (underweight, overweight, and obesity). Being overweight is an excessive level of nutritional status that will depend on health so that it can reduce a person's quality of life [2].

BMI control can be done by doing physical activity and maintaining food intake patterns. The results of this study are supported by previous research that explains that. Increased physical activity for three months along with diet carried out by obese people showed a decrease (body mass index) BMI [11]. The behavior of daily physical activity affects visceral fat accumulation and BMI. Doing physical activity, such as walking is one way to prevent cardiometabolic disease [12]. A study conducted explains that, someone who has more sedentary activity will have high body fat [13]. Other studies report that someone who does more frequent physical activity has low body fat [14]. Physical activity of moderate to vigorous intensity had a negative association with some body fat and belly fat, while light physical activity had no association with body fat. This is important to prevent abdominal obesity and cardiomatabolic disease [15].

A study that explains that found a relationship between physical activity and abdominal body fat, broadly the same as the relationship between physical activity and total body fat [16]. Other studies report that increased visceral fat is a risk factor for metabolic syndrome in postmenopausal women, but high levels of regular physical activity above the threshold of 12,500 steps/day can reduce it substantially [17]. The findings in this study explain that the importance of implementing a healthy lifestyle such as, doing regular physical activity with moderate to strong intensity that is carried out regularly and maintaining food intake patterns to maintain nutritional status in order to obtain better health or prevent obesity.

5. Conclusion

A healthy lifestyle plays a very important role to maintain one's health. Doing regular physical activity with moderate to strong intensity that is done regularly and maintaining a good food intake pattern is a lifestyle that needs to be applied to get maximum health. Light activity or sedentary activity can lead to excessive accumulation of fat which can lead to obesity. Lack of physical activity and poor eating habits lead to the prevalence of overweight with the consequent high risk of complications of metabolic diseases.

Reference

- [1] I. Gusti Ayu Anjali Diah Prameswari, I. Pascha Paramurthi, I. Putu Astrawan, P. Studi Fisioterapi, F. Ilmu-Ilmu Kesehatan, and U. Bali Internasional, "Hubungan Antara Indeks Massa Tubuh (Imt) Dengan Kualitas Hidup Dan Vo2Maks Pada Lanjut Usia Di Banjar Kemulan Desa Jagapati Kecamatan Abiansemal Badung," *J. Kesehat. Masyarakat, Prepotif*, vol. 6, 2022.
- [2] L. Wang *et al.*, "Body mass index and waist circumference predict health-related quality of life, but not satisfaction with life, in the elderly," *Qual. Life Res.*, vol. 27, no. 10, pp. 2653–2665, 2018, doi: 10.1007/s11136-018-1904-6.
- [3] K. P. Hidayat and I. Karjadidjaja, "Hubungan Pengetahuan Gaya Hidup Sehat Dengan Kejadian Obesitas Pada Ibu Rumah Tangga di Kecamatan Dayeuhluhur," *BULLET J. Multidisiplin Ilmu*, vol. 01, no. 6, pp. 947–952, 2022.
- [4] K. Kumar, "Importance of Healthy Life Style in Healthy living," *Juniper Online J. Public Heal.*, vol. 2, no. 5, 2017, doi: 10.19080/jojph.2017.02.555596.
- [5] A. M. Kumala, A. Margawati, and A. Rahadiyanti, "Hubungan Antara Durasi Penggunaan Alat Elektronik (Gadget), Aktivitas Fisik Dan Pola Makan Dengan Status Gizi Pada Remaja Usia 13-15 Tahun," *J. Nutr. Coll.*, vol. 8, no. 2, p. 73, 2019, doi: 10.14710/jnc.v8i2.23816.
- [6] Z. A. Salam, R. A., Padhani, Z. A., Das, J. K., Shaikh, A. Y., Hoodbhoy, Z., Jeelani, S. M., Lassi Z. S., & Bhutta, "Effects of Lifestyle Modification Interventions to Prevent and Manage Child and Adolescent Obesity:," *Nutrients*, vol. 12, p. 2208, 2020.
- [7] D. Z. Obidovna and D. S. Sulaymonovich, "The Concept of Health Lifesyle in Psychological Research," *J. Anal. Invent.*, vol. 3, no. 6, pp. 53–64, 2022.
- [8] A. G. Jeki and I. F. Isnaini, "Aktivitas Fisik Pada Remaja Dengan Kegemukan; Sistematik Review Physical Activity in Adolescent With Obesity; a Systematic Review," J. Ilmu Kesehat. Masy., vol. 18, no. 2, 2022, doi: 10.19184/ikesma.v18i1.24902.
- [9] [9] G. R. Sanchi and L. R. Borges, "Lifestyle and nutritional status of employees of a chain of banks in Pelotas, Rio Grande do Sul, Brazil," *Rev. Bras. Med. do Trab.*, vol. 17, no. 1, pp. 45–53, 2019, doi: 10.5327/Z1679443520190225.
- [10] B. Masanovic, S. Martinovic, G. Zoric, D. Bacovic, M. Mitrovic, and M. Vukotic, "Trends in Body Height, Body Weight, and Body Mass Index from 1979 to 1987: An Analysis of the Young Male Population from the Municipality of Cetinje," *J. Anthropol. Sport Phys. Educ.*, vol. 4, no. 2, pp. 3–7, 2020, doi: 10.26773/jaspe.200401.
- [11] J. Rodriguez *et al.*, "Physical activity enhances the improvement of body mass index and metabolism by inulin: a multicenter randomized placebo-controlled trial performed in obese individuals," *BMC Med.*, vol. 20, no. 1, pp. 1–20, 2022, doi: 10.1186/s12916-022-02299-z.
- [12] S. Ando, T. Koyama, N. Kuriyama, E. Ozaki, and R. Uehara, "The Association of Daily Physical Activity Behaviors with Visceral Fat," *Obes. Res. Clin. Pract.*, vol. 14, no. 6, pp. 531–535, 2020, doi: 10.1016/j.orcp.2020.10.004.
- [13] J. DiFrancisco-Donoghue, W. G. Werner, P. C. Douris, and H. Zwibel, "Esports players, got muscle? Competitive video game players' physical activity, body fat, bone mineral content, and muscle mass in comparison to matched controls," *J. Sport Heal. Sci.*, vol. 11, no. 6, pp. 725–730, 2022, doi: 10.1016/j.jshs.2020.07.006.

- [14] Q. Zou *et al.*, "The association between physical activity and body fat percentage with adjustment for body mass index among middle-aged adults: China health and nutrition survey in 2015," *BMC Public Health*, vol. 20, no. 1, pp. 1–12, 2020, doi: 10.1186/s12889-020-08832-0.
- [15] E. Winters-VAN Eekelen *et al.*, "Objectively Measured Physical Activity and Body Fatness: Associations with Total Body Fat, Visceral Fat, and Liver Fat," *Med. Sci. Sports Exerc.*, vol. 53, no. 11, pp. 2309–2317, 2021, doi: 10.1249/MSS.0000000000002712.
- [16] L. Bowen et al., "Associations between diet, physical activity and body fat distribution: A cross sectional study in an Indian population," BMC Public Health, vol. 15, no. 1, 2015, doi: 10.1186/s12889-015-1550-7.
- [17] I. Zając-Gawlak, B. Kłapcińska, A. Kroemeke, D. Pośpiech, J. Pelclová, and M. Přidalová, "Associations of visceral fat area and physical activity levels with the risk of metabolic syndrome in postmenopausal women," *Biogerontology*, vol. 18, no. 3, pp. 357–366, 2017, doi: 10.1007/s10522-017-9693-9.

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