

Students Perceptions of Cigarette, Graphic Health Warnings, Fast Food Consumption, and Gadget Use On Physical Activity (Evidence-Based For Health Promoting University Program Recommendations)

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ABSTRACT

Based on BPS data, consumption of cigarettes and e-cigarettes by teenagers over 15 years old decreased by 2.62% from the previous year, but it still has the potential to be dangerous. Adolescent health is quite worrying considering that teenagers are the main figures who can carry forward the vision for the future. The aim of this research is to obtain empirical evidence and appropriate strategies for implementing the HPU program. The method used is quantitative, through a survey with Franken-wallen incidental sampling, respondents are students pursuing higher education in 3 districts/cities, namely Banjar Regency, Banjarmasin City and Banjarbaru City. The survey was conducted from September to October (2 weeks) online. The results of this study show that cigarette and e-cigarette consumption is quite low, but respondents' perceptions regarding are still comprehensive (71%), including regarding graphic health warnings on cigarette packaging (80.1%). Interest in consuming fast food tends to be high (64.2%), who regularly consume fruit and vegetables (37.5% and 33.5%). The use of gadgets among students is very high (58%) and complaints regarding CVS also appear (45.5%). To support HPU, a specific action plan is needed, especially to strengthen understanding of the impact of consumption of cigarettes and so on.

Keywords : Cigarettes, grapic health warning, fast food, gadget, physical activity

INTRODUCTION

Nowadays, many teenagers are starting to lead an unhealthy lifestyle. The rapid development of technology does not make them pay more attention to health, but instead ignores a healthy lifestyle. The unhealthy habits that teenagers live today include smoking, eating junk food, sedentary life, and so on. Most teenagers already know the negative impact of an unhealthy lifestyle, but it cannot change their lifestyle. For example, the existence of a government policy in the form of Graphic Health Warning (GHW) on cigarette packaging, should give the impression of a threat to smokers but in reality this has less positive impact (1). There are still many teenagers and even older people who are active smokers, coupled with the existence of e-cigarettes which are easier, considered safer, and more attractive because there are various flavors, increasing the addiction for users.

Based on BPS data, cigarette and e-cigarette consumption among adolescents above 15 years has decreased by 2.62% from the previous year, but this insignificant decrease is still potentially dangerous. Many government efforts have been made to reduce the number of smokers, especially in Indonesia, but these efforts have not produced the expected results. This is because smokers are usually addicted to nicotine while nicotine reduction efforts such as Nicotine Replacement Therapy (NRT) have a very high selling price (Hameed & Malik, 2022). This smoking habit is bad for health, active smokers and passive smokers can experience cancer,

COPD, cardiovascular disease and so on. So efforts are needed to increase public awareness and knowledge related to smoking habits (2).

In addition to smoking, adolescents today also have the habit of consuming junk food. The consumption of junk food has increased fivefold among adolescents in the last three decades. Junk food consumption varies by age, it was found that the proportion of junk food was higher in early adolescents (93%) compared to late adolescents (89%) (3). This poses a risk to adolescent health. Excessive consumption of junk food will lead to increased obesity and the risk of health problems in adolescents. Therefore, health education efforts need to be made to increase adolescents' knowledge related to good nutrition and poor nutrition.

Efforts to overcome and prevent the bad habits above can be done through various ways, one of which is through social media. The use of gadgets among teenagers is very high. Reporting from the Hootsuite Indonesia Advanced Report 2020, teenagers over 16 years old spend an average of 7 hours 59 minutes on gadget use. However, the use of gadgets with this long duration causes a lack of physical activity in adolescents which increases sedentary lifestyle patterns. In addition, teenagers are also at risk of various diseases such as headaches, visual impairment, psychological disorders and so on (4).

Health Promoting University (HPU) is a concept derived from WHO Healthy Cities that aims to reflect the philosophy and principles of health through a place-based approach. Three important components in this approach are healthy working and living environments, integration of health promotion in daily activities, and reaching out to neighborhood communities. Within the scope of Health Promoting University, the entire academic community becomes part of the target community, including students. There are various methods of health promotion that can be done, one of which is peer education.

Adolescent health is a concern considering that adolescents are the main figures to be able to carry the vision forward, including in Indonesia, which carries the Golden Indonesia 2045. The purpose of this study is to obtain empirical evidence and appropriate strategies for recommendations for implementing HPU programs to support the improvement of adolescent health quality for the creation of Indonesia Emas 2045.

METHOD

The research method used in this study was descriptive observational research with a cross sectional approach. The population taken for this study were students who took higher education (Undergraduate: D1, D2, D3, D4 / S1, Professional, Specialist and Postgraduate S2) in 3 districts / cities with the largest number of higher education in South Kalimantan, namely Banjar Regency, Banjarmasin City and Banjarbaru City. Data collection was carried out using a modified questionnaire from (citations 1, 2, 3 and 4) which had undergone validity and reliability tests on 30 student respondents at one of the universities in Banjarbaru City. Data collection was carried out for 30 days starting from 26 October - 26 November 2023 and obtained 176 respondents. The data is described univariately to provide an overview related to Perceptions of what components of cigarettes are most harmful, Perception of the most harmful cigarette products, Perception of nicotine to disease, Perception of nicotine to disease (etc.)

RESULT AND DISCUSSION

Perceptions of what components of cigarettes are most harmful

Table 1. Perceptions of what components of cigarettes are most harmful

Components of Cigarettes	Frequency	Percentage
Tobacco		
Not really harmful	1	0.6%
Not harmful	1	0.6%
Moderately harmful	14	8.0%
Harmful	44	25.0%
Very harmful	116	65.9%
Nicotine		
Not really harmful	2	1.1%
Not harmful	1	0.6%
Moderately harmful	3	1.7%
Harmful	39	22.2%
Very harmful	131	74.4%
Tar		
Not really harmful	1	0.6%
Moderately harmful	8	4.5%
Harmful	37	21.0%
Very harmful	130	73.9%
Carbon Monoxide		
Not really harmful	1	0.6%
Not harmful	1	0.6%
Moderately harmful	3	1.7%
Harmful	29	16.5%
Very harmful	142	80.7%
Cigarette Smoke		
Not really harmful	1	0.6%
Moderately harmful	1	0.6%
Harmful	16	9.1%
Very harmful	158	89.8%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Based on the survey results, it is known that respondents chose the tobacco component is very dangerous at 65.9%, the nicotine component is very dangerous at 74.4%, the tar component is very dangerous at 73.9%, carbon monoxide when smoking is very dangerous at 80.7% and cigarette smoke inhaled when smoking is very dangerous at 89.8%.

Cigarette components can be divided into two major groups, namely the gas component (92%) which consists of CO, CO₂, hydrogen cyanide, ammonia, oxides of nitrogen and hydrocarbon compounds, the other component is the solid or gas component (8%) which consists of tar, nicotine, benzantracene, benzopyrene, phenol, cadmium, indole, carbarzol and cresol. The three most harmful chemicals in cigarette smoke are tar, nicotine and carbon monoxide.

Based on the results obtained, 89.8% of respondents chose cigarette smoke as the most dangerous component, this is in accordance with the research journal obtained, which has been explained above that cigarette smoke has dangerous components. Followed by the carbon monoxide component where 80.7% of respondents chose carbon monoxide as the most

dangerous component contained in cigarettes and 74.4% of respondents chose the nicotine component as the most dangerous component, the last 73.9% of respondents chose the tar component as the most dangerous component. Thus, respondents' perceptions of the most dangerous components of cigarettes are in accordance with the results of several studies that have been conducted (2).

Perception of the most harmful cigarette products

Table 2. Perception of the most harmful cigarette products

Perception of Cigarette Products	Frequency	Percentage
What do you think about conventional cigarettes more harmful than another type of cigarettes, such as electric cigarettes/vape?		
Agree	30	17.0%
It's same	124	70.5%
Disagree	5	8.5%
I don't know	7	4.0%
What do you think about the addiction risk of electric cigarettes are higher than conventional cigarettes?		
Agree	40	22.7%
It's same	104	59.1%
Disagree	12	6.8%
I don't know	20	11.4%
What do you think about the risk of harm to health in electric cigarettes are higher than conventional cigarettes?		
Agree	26	14.8%
It's same	125	71.0%
Disagree	7	4.0%
I don't know	18	10.2%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

It is known from the survey results that respondents who consider cigarette sticks to be more dangerous than e-cigarettes are the same danger at 70.5%, then the risk of dependence is higher than cigarette sticks is the same danger at 59.1%, and the health hazards of e-cigarettes are higher than cigarette sticks are the same danger at 71%.

Cigarettes are tobacco products made from tobacco that is chopped and wrapped in paper for use. E-cigarettes are also dangerous because the vapor produced is not just ordinary water vapor but is composed of particles that are so small that they can enter the nerve function and it can be said that e-cigarettes can endanger health. The dangers of e-cigarettes are also reinforced by research that epidemiologically estimates that in 2060 the prevalence of chronic obstructive pulmonary disease will continue to increase due to the increasing number of people who smoke (5). Tobacco cigarettes consisting of clove cigarettes and white cigarettes have an equally harmful effect on the risk of stroke (6).

Based on the results of the research conducted, 71% of respondents felt that the health hazards of e-cigarettes were higher than those of cigarettes, with a perceived risk of dependence higher than cigarettes at 59.1%. This was followed by 70.5% of respondents perceiving bar cigarettes to be more harmful than e-cigarettes. Thus, respondents' perceptions of the most harmful cigarette products are in accordance with the results of several studies that have been conducted.

Perception of nicotine to disease

Table 3. Perception of nicotine to disease

Perception of nicotine to disease	Frequency	Percentage
What do you think about consuming nicotine can cause cancer?		
Really agree	106	60.2%
Agree	44	25.0%
Not really agree	8	4.5%
Disagree	2	1.1%
I don't know	16	9.1%
What do you think about consuming nicotine can cause cardiovascular disease?		
Really agree	100	56.8%
Agree	59	33.5%
Not really agree	4	2.3%
Disagree	1	0.6%
I don't know	12	6.8%
What do you think about consuming nicotine while pregnant can cause birth defects?		
Really agree	107	60.8%
Agree	54	30.7%
Not really agree	3	1.7%
Disagree	12	6.8%
What do you think about consuming nicotine can cause lungs disease?		
Really agree	135	76.7%
Agree	30	17.0%
Not really agree	4	2.3%
Disagree	1	0.6%
I don't know	6	3.4%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Based on the survey conducted, the question of nicotine can cause cancer respondents answered strongly agree by 60.2%, nicotine can cause cardiovascular disease respondents answered strongly agree by 56.8%, consuming nicotine when pregnant will cause birth defects respondents answered strongly agree by 60.8% and consuming nicotine can cause lung disease respondents answered strongly agree by 76.7%.

Data related to cigarette use studies in Indonesia show that 2.1% of respondents use electronic cigarettes with an age of 25 - 45 years at 47% (7). The National Socio-Economic Survey (SUSENAS) shows the use of e-cigarettes in Indonesia is 4,419,622 people. Alongside the increase in e-cigarette use over the past few decades, e-cigarette-induced lung disease has been reported since 2019.

Based on the answers of the respondents, it is known that most respondents already have a good understanding of the dangers of nicotine to the human body related to the causes of various diseases. From the data collected, 76.7% of respondents agreed that cigarettes can cause lung disease, followed by the statement that nicotine can cause cancer by 60.2% of respondents. The most common acute respiratory disease associated with e-cigarette use is known as E-cigarette or vaping product use-associated lung injury (EVALI). Some other respiratory disorders that can occur due to e-cigarette use are obstructive lung disease and lung cancer (8).

Then as many as 60.8% of respondents stated that consuming nicotine when pregnant will cause birth defects, and nicotine can cause cardiovascular disease by 56.8% of respondents. Thus, respondents' perceptions of nicotine as a cause of the onset of several diseases are in accordance with the results of several studies that have been conducted.

Perception about e-cigarettes

Table 4. Perception about e-cigarettes

Perception about e-cigarettes	Frequency	Percentage
E-Cigarettes can cause addiction		
Yes	148	84.1%
No	3	1.7%
I don't know	25	14.2%
E-Cigarettes are more expensive than conventional cigarettes		
Yes	94	53.4%
No	13	7.4%
I don't know	69	39.2%
E-Cigarettes are safer than conventional cigarettes		
Yes	22	12.5%
No	114	64.8%
I don't know	40	22.7%
E-Cigarettes are more effective to stop people to smoking		
Yes	9	5.1%
No	129	73.3%
I don't know	38	21.6%
Do you recommend e-cigarettes to stop people smoking?		
Yes	19	10.8%
No	133	75.6%
I don't know	24	13.6%
Do you think health workers should support the use of e-cigarettes?		
Yes	4	2.3%
No	158	89.8%
I don't know	14	8.0%
Do you think the use of e-cigarettes should be banned?		
Yes	129	73.3%
No	19	10.8%
I don't know	28	15.9%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Based on the survey conducted, the question of nicotine can cause cancer respondents answered strongly agree by 60.2%, nicotine can cause cardiovascular disease respondents answered strongly agree by 56.8%, consuming nicotine when pregnant will cause birth defects respondents answered strongly agree by 60.8% and consuming nicotine can cause lung disease respondents answered strongly agree by 76.7%.

E-cigarettes have a negative impact because e-liquid vapor contains several substances harmful to the body and can have an impact on the lungs through inflammatory, irritating and carcinogenic processes. Lung diseases that can be caused by the use of e-cigarettes are E-cigarette or vaping product use-associated lung injury (EVALI), obstructive lung disease, bronchitis obliterans or popcorn lung, and lung cancer (9).

As research has been done before, the use of vape cigarettes among students can cause nicotine dependence in the low to moderate category. In another study, e-cigarette use among young adults was shown to produce higher levels of nicotine dependence compared to nicotine dependence associated with tobacco cigarette use. In addition, the stronger dependence on e-cigarettes compared to traditional cigarettes identified in dual users suggests that e-cigarettes may be highly addictive. The social normalization of smoking behavior by allowing e-cigarette use should be monitored (10).

Based on the data collected, it is known that most respondents do not approve of the use of e-cigarettes to help quit smoking, which was stated by 73.3% of respondents. This is because 84.1% of respondents stated that e-cigarettes cause addiction, and 64.8% of respondents stated that e-cigarettes are not safer than cigarettes. This statement was also emphasized by the answer of 73.3% of respondents answering that e-cigarettes should be banned from use. Thus, respondents' perceptions of e-cigarettes are in accordance with the results of several studies that have been conducted.

Perceptions regarding Graphic Health Warnings on Cigarette Packaging

Table 5. Perception of Graphic Health Warning on Cigarettes

Perception of Graphic Health Warning on Cigarettes	Frequency	Percentage
Do you know there are Graphic Health Warning on Cigarettes packaging?		
Yes	174	98.9%
No	2	1.1%
What information, messages and graphic health warning on cigarette packaging do you remember the most?		
The pictures of oral cancer	18	10.2%
The pictures of black lungs caused by cancer	72	40.9%
The pictures of throat cancer	40	22.7%
The pictures of lung and laryngeal cancer sufferers	35	19.9%
The pictures of throat cancer	9	5.1%
I don't know	2	1.1%
Do you know about health education that is written on the Graphic Health Warning on the cigarettes packaging?		
Yes	171	97.2%
No	5	2.8%
Do you know about "stop smoking call service" that is written on Graphic Health Warnings on the cigarettes packaging?		
Yes	47	26.7%
No	129	73.3%
Do you know the warnings about the dangers of cigarette components that are written on the cigarettes packaging?		
Yes	146	83.0%
No	30	17.0%
Do you know about the tar levels that is written on the cigarettes packaging?		
Yes	58	33.0%
No	116	65.9%
I don't know	2	1.1%
Do you know about the prohibition on buying and selling cigarettes written on cigarette packaging?		
Yes	76	43.2%
No	99	56.3%

Perception of Graphic Health Warning on Cigarettes	Frequency	Percentage
I don't know	1	0.6%
How is the quality of the health warning writing on cigarette packaging?		
Very good	89	43.2%
Good	71	56.3%
Bad	4	
I don't know	12	0.6%
What things do you see on the graphic health warnings on the cigarettes packaging?		
Cigarettes Brand	11	6.3%
The picture of the disease	132	75.0%
The color and script	9	5.1%
Health messages	16	9.1%
I don't know	8	4.5%
Whether the graphic health warnings can warned people from the health impact of smoking?		
Yes	30	17.0%
No	146	83.0%
Whether graphic health warnings on the cigarettes packaging can make people afraid?		
Yes	35	19.9%
No	141	80.1%
What do you think is the awareness level of health impacts by the graphic health warnings on the cigarettes packaging?		
No level	28	15.9%
A little bit	61	34.7%
Enough	50	28.4%
High level	37	21.0%
Whether graphic health warnings on the cigarettes packaging can visualize the health impact caused by cigarettes?		
Yes	147	83.5%
No	29	16.5%
Whether graphic health warnings make people stop smoking?		
Yes	20	11.4%
No	156	88.6%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

The results of a survey conducted on respondents that they know there are health warnings on cigarette packs amounted to 98.9%, then the information messages and health warnings on cigarette packs that are most remembered are images of blackened lungs due to cancer by 40.9%. Respondents knew the health messages written on cigarette packs by 97.2% but based on the survey 73.3% of respondents did not know the contact number of smoking cessation services on cigarette packs. 83% of respondents knew the warning of the dangers of smoking on cigarette packs but 65.9% did not know the tar and nicotine content written on cigarette packs. It is known that 56.3% do not know about the prohibition of selling cigarettes on cigarette packages. A total of 56.3% of respondents stated that the quality of health warning writing on cigarette packs was only slightly legible and 75% of respondents stated that they saw pictures of diseases that were often seen on cigarette packs.

However, health warning images on cigarette packs do not make people aware of their health when smoking with a percentage of 83%, as well as the statement that health warning

images on cigarette packs do not make them afraid or worried about smoking with a percentage of 80.1% but it is known through this survey that respondents feel a little worried about the health effects of seeing warning images on cigarette packs by 34.7%. A total of 83.5% of respondents agreed that health warning images on cigarette packs visualize the health hazards of smoking but health warning images on cigarette packs do not make someone completely stop smoking with a percentage of 88.6%.

Based on analysis related to the implementation of new government regulations regarding the inclusion of warnings about the dangers of smoking for health in the form of GHW on cigarette packs, this has an effect on intentions to quit smoking. However, because there are only 5 types of images being circulated, smokers are starting to get a little used to these images, so it would be better to add a variety of images that are even scarier than before so that they can help attract smokers' attention. Also, the information written on cigarette packs still has shortcomings because the information written on cigarette packs is very small so it is not very clear and a little difficult to read because the size of the image description is so small that it is difficult to read directly at a long distance (11).

Attitude towards Fast Food Consumption

Table 6. Attitude towards Fast Food Consumption

The Perception of Junk Food	Frequency	Percentage
I like the taste of junk foods		
Disagree	2	1.1%
Not really agree	16	9.1%
Agree	113	64.2%
Really agree	45	1.1
I feel satisfied when i eat junk food		
Disagree	7	4.0%
Not really agree	27	15.3%
Agree	109	61.9%
Really agree	33	18.8%
In my opinion junk food can increase the body weight		
Disagree	2	1.1%
Not really agree	17	9.7%
Agree	91	51.7%
Really agree	66	37.5%
That's a normal thing to eat the junk food as a daily food		
Disagree	60	34.1%
Not really agree	92	52.3%
Agree	21	11.9%
Really agree	3	1.7%
Behavioral Intentions Towards Junk Food		
I want consume the junk food next week		
Disagree	17	9.7%
Not really agree	52	29.5%
Agree	79	44.9%
Really agree	28	15.9%
I would consume the junk food next week		
Disagree	32	18.2%
Not really agree	63	35.8%
Agree	59	33.5%

Really agree	22	12.5%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Based on the survey, 64.2% like the taste of junk food, 61.9% are satisfied when consuming junk food, 56.3% feel that junk food is not good for health, 51.7% agree that consuming junk food can increase weight and 52.3% disagree that junk food is commonplace as a routine meal.

Most consumers consume fast food because it tastes good. Apart from tasting good, junk food is also easily available and increases appetite (12). However, junk food has a negative impact on health, namely high sodium, calories and fat. Continuous excessive sodium consumption according to the Federation of the American Society for Experimental Biology report is a burning sensation in the neck, numbness in the back of the neck, stress and tension on the facial skin, chest tightness and so on. Then the high calories in each variant of junk food can exceed the daily calorie consumption recommendations will cause hoarding of calories in the body if not used. Then junk food contains excessive fat. Fat in junk food includes saturated fat and trans fat which, if consumed continuously, will lead to overweight and obesity due to an imbalance between energy consumption and needs. This is also the reason that junk food cannot be used as a routine food because of the risks posed by consuming junk food continuously will cause health problems (13).

Based on the results of research conducted, it is known that as many as 64.2% like the taste of junk food, and as many as 61.9% are satisfied when consuming junk food. This is in accordance with research by Alfora et al. which states that serving junk food is easily accepted by the public because it tends to have a good taste and can increase appetite. But the majority of respondents, namely 56.3% of respondents, were aware that junk food can increase body weight. The significant and excessive weight gain caused by junk food is what causes junk food to be bad for health, as agreed by 56.3% of respondents. Followed by a statement of disagreement by 52.3% of respondents if junk food is considered normal as a routine food. Thus, respondents' perceptions of how to behave towards fast food consumption are in accordance with the results of several studies that have been conducted.

Subjective Norms towards Fast Food Consumption

Table 7. Subjective Norms towards Fast Food Consumption

Subjective Norm to Junk Food	Frequency	Percentage
My parents never prohibit me if i consume the junk food		
Disagree	40	22.7%
Not really agree	68	38.6%
Agree	63	35.8%
Really agree	5	2.8%
My teacher never prohibit me if i consume the junk food		
Disagree	33	18.8%
Not really agree	92	52.3%%
Agree	47	26.7%
Really agree	4	2.3%
My friends never prohibit me if i consume the junk food		
Disagree	16	9.1%
Not really agree	57	32.4%
Agree	88	50.0%
Really agree	15	8.5%
My siblings never prohibit me if i consume the junk food		

Subjective Norm to Junk Food	Frequency	Percentage
Disagree	28	15.9%
Not really agree	52	29.5%
Agree	85	48.3%
Really agree	11	6.3%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

As many as 38.6% of respondents disagreed with the statement that parents did not mind eating junk food, even in the statement that teachers or lecturers did not mind eating junk food, 52.3% of respondents disagreed. In the statement that the respondent's friends did not mind if they ate junk food, 50% of respondents agreed, as did the statement on siblings with a percentage of 48.3% agreeing.

The role of parents in regulating good nutrition in the family is very important. Parents control and regulate the nutrition given to their children to be adequate and balanced. Giving junk food to children can have a big impact on children's health as well as being a problem for some parents. The behavior of children who often consume junk food does not only come from themselves but also the surrounding environment, for example friends (14,15). The behavior of consuming junk food is influenced by friends and relatives. This is in accordance with the results of the survey conducted due to the similarity in food preferences in a friendship so that there is often a change in behavior caused by transferring the behavior of fellow friends (16).

PBC towards Fast Food Consumption

Table 8. PBC towards Fast Food Consumption

Perceived Behavioral Control Towards Junk Food	Frequency	Percentage
The advertisements and influencers that i see on TV and social media Influence me to consume junk food		
Disagree	12	6.8%
Not really agree	21	11.9%
Agree	106	60.2%
Really agree	37	21.0%
The price influence me to consume the junk food		
Disagree	12	6.8%
Not really agree	35	19.9%
Agree	95	54.0%
Really agree	34	19.3%
The time limit of mine make me consume the junk food		
Disagree	6	3.4%
Not really agree	21	11.9%
Agree	99	56.3%
Really agree	50	28.4%
Easy access to get the junk food make me consume it		
Disagree	4	2.3%
Not really agree	11	6.3%
Agree	106	60.2%
Really agree	55	31.3%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

The percentage of respondents who agreed that advertisements and influencers seen on social media or television influenced them to consume junk food was 60.2%, especially with the cheap price of junk food which further influenced them to consume junk food with a percentage of 54%. As many as 56.3% of respondents stated that the limited time they have can influence them to consume junk food and 60.2% of respondents agreed that if access to junk food is easy, it will affect respondents in consuming junk food. Respondents' behavioral intentions on junk food are evidenced by 44.9% of respondents having the desire to eat junk food next week but 35.8% of respondents disagreed if they had planned to eat junk food next week.

Social media is one of the biggest influencers in consuming junk food, which is in line with a survey conducted that advertisements can influence someone to buy junk food. The number of advertisements on social media influences consumers to consume junk food (16). In addition, the reason for consuming junk food is because of time constraints, so junk food is the main option because it is fast and practical. Moreover, at this time there are many online food and beverage ordering applications that make it easier to place orders coupled with the cheap price of junk food and the many discounts or savings packages offered (12).

Duration of screen time per day

Table 9. Use of Gadget

Use of Gadget	Frequency	Percentage
If you add it up in one day, how long do you interact with your gadget?		
Less than 1 hour	1	0.6%
About 1-2 hours	3	1.7%
About 3-4 hours	28	15.9%
About 5-6 hours	42	23.9%
More than 6 hours	102	58.0%
What kind of gadget that you use the most?		
Computer/Laptop?Notebook	9	5.1%
Smartphone	164	93.2%
Tablet/iPad	3	1.7%
What kind of activities you do the most with your gadget?		
Online class	17	9.7%
Gaming	4	2.3%
Social media	128	72.7%
Watching cartoon, anime, film, etc	19	10.8%
Call	2	1.1%
Remote working	6	3.4%
When you use the gadget continuously in for a certain period of the time, do you feel any health complaints as follows?		
Headache	80	45.5%
Insomnia	21	11.9%
Back pain	9	5.1%
Sore	13	7.4%
Visual impairment	16	9.1%
Depression	1	0.6%
Nothing	36	20.5%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Based on the results of the survey conducted, the percentage of respondents interacting with gadgets for more than 6 hours is 58% with 93.2% of the types of gadgets that are often used, namely smartphones.

A gadget is an electronic device with various functions. Gadgets can be computers/laptops, tablet PCs or smartphones. Gadgets have many positive impacts if used properly and properly but in addition there are also negative impacts of using gadgets (17). The negative impact that is often encountered is the excessive duration of gadget use. Addiction to gadgets is quickly felt due to continuous use. Especially the use of gadgets for things like playing games, watching movies or playing social media.

The intensity of gadget use is categorized as high if using the gadget for more than 120 minutes per day and in one use ranges from >75 minutes. In addition, in a day, there can be many times (more than 3 times) using gadgets with a duration of 30-75 minutes, which will lead to addiction in using gadgets (18). Based on the survey, the duration of gadget use is for more than 6 hours, which is included in the high intensity. The use of gadgets in high intensity can cause health impacts such as visual disturbances, dizziness, sleep disturbances and unstable emotions (19).

Duration of doing physical activity per day

Table 5. Physical Activity

Physical Activity	Frequency	Percentage
What kind of physical activity that you do the most in the last 3 months?		
Ride a bicycle	6	3.4%
Leisurely strolling	86	48.9%
Sprint	11	6.3%
Gym	12	6.8%
Self defense training	4	2.3%
Badminton, Tennis	21	11.9%
Swimming	2	1.1%
Nothing	34	19.3%
How long you do the physical activities continuously in one time?		
Less than 60 minutes	86	48.9%
About 60-120 minutes (1-2 hours)	50	28.4%
About 121-180 minutes	3	1.7%
More than 180 minutes	2	1.1%
Nothing	35	19.9%
Total	176	100%

From the survey results, physical activities that were often carried out in the last 3 months were leisurely walks which had a percentage of 48.9% with the duration of doing physical activity was less than 60 minutes with a percentage of 48.9%. Physical activity is the activity of moving the body from skeletal muscle work and there is an increase in the burning of power and energy. Lack of physical activity can cause energy burning to be reduced so that excess energy will be stored by the body in the form of fat. This condition can cause over nutrition in individuals (20). Based on the survey results, the physical activity that respondents often do is leisurely walking with the duration in the implementation of one time is less than 60 minutes. The duration of respondents when doing physical activity is good enough because physical activity is at least 30 minutes at a time and needs to be done at least 3 times a week for optimal results. Someone who

is addicted to smartphones usually has less activity so they do little energy-burning activities every day, increasing the risk of obesity (21).

Health issue caused by gadget use

Table 11. Health issue caused by gadget use

Health Issue	Frequency	Percentage
When you use the gadget continuously in for a certain period of the time, do you feel any health complaints as follows?		
Headache	80	45.5%
Insomnia	21	11.9%
Back pain	9	5.1%
Sore	13	7.4%
Visual impairment	16	9.1%
Depression	1	0.6%
Nothing	36	20.5%
Total	176	100%

Sumber: Data Primer Penelitian pada Responden, 2023

Health problems or complaints that are often felt by respondents are feeling dizzy with a percentage of 45.5%. Based on a survey conducted, the duration of gadget use is for more than 6 hours with health problems that are often felt, namely dizziness. The use of gadgets in high intensity can cause health impacts such as visual disturbances, dizziness, sleep disturbances and unstable emotions. It is known that more than 90% of computer users experience visual symptoms such as eye fatigue, blurred vision, dizziness and dry eyes when looking near or far after prolonged use. Even gadgets are often used while sleeping in the dark which can lead to decreased vision function (19). Not only that, gadget use also affects sleep quality. Disturbed sleep quality will reduce one's productivity. When going to sleep a person needs time for pre-sleep for 10 to 30 minutes. If this time is used for gadget activities, the pre-sleep time will be more than 30 minutes and will reduce the intensity of one's sleep time (22).

CONCLUSION

This study found that most university students in 3 districts/cities in South Kalimantan have moderate health literacy. However, most respondents were still at a low level in implementing healthy behaviors, especially towards junk food consumption and gadget use. Important indications in this study confirm that to support the realization of HPU, a specific action plan is needed, especially to strengthen understanding of what and why health risks can occur in the consumption of conventional cigarettes and e-cigarettes, it is also necessary to strengthen health campaigns in the consumption of fruits and vegetables, minimize the consumption of junk food, get used to physical activity and promotive and preventive in order to maintain eye health in the use of gadgets. This research has obtained empirical evidence and appropriate strategies for recommendations for implementing the HPU program, namely by holding the GERMAS program.

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