The Individuals Knowledge at Risk to Suffered of Non Communicable Disease

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Abstract. Non-communicable diseases such as Cancer, Heart disease, Stroke, and Diabetes Mellitus can occur at the age of 15-45 years. Efforts to prevent non-communicable diseases in Indonesia through increasing community knowledge about CERDIK (Cek kesehatan berkala / periodical health checks, Enyahkan rokok/eliminate smoking, Rajin aktivitas fisik/routinely physical activity, Diet sehat seimbang/balanced healthy diet, Istriahat cukup/adequate rest, and Kelola stress/manage stress). The study purpose describes the knowledge of productive age individuals who are at risk of suffered to non-communicable diseases about CERDIK. The study design was cross-sectional. Subjects were 213 individuals who visited fast food and beverage restaurants in Blitar City, selected by simple random sampling. Data collection used the CERDIK knowledge questionnaire in March - August 2019. Data analysis used descriptive. Knowledge as a process of individual cognition that was medium and good categorized as much as 74%. It is recommended that CERDIK’s socialization be carried out continuously and everywhere.

1. Introduction
Non-communicable disease (NCD/ Penyakit Tidak Menular (PTM)) is a chronic disease with long suffering or disability, especially risk factors based on behavior and impact on household socio-economy[1]. The Data and Information Center of Indonesian Ministry of Health in 2016 writes that non-communicable diseases are the leading cause of death globally. Deaths due to non-communicable diseases are expected to continue to increase throughout the world, the largest increase will occur in middle and poor countries. WHO in 2011[2] stated that more than two-thirds (70%) of the global population will die from non-communicable diseases such as Cancer, Heart disease, Stroke, and Diabetes Mellitus. WHO also predicts that by 2030 the death toll from non-communicable diseases will reach 52 million.

Factors that can cause individuals to suffer from NCD is behavior. Behavior is the result of all kinds of human experience and interaction with the environment which is manifested in the form of knowledge, attitudes, and practices. Human behavior is influenced by factors of experience, beliefs, physical facilities, and social culture of the community[3].

Efforts to control NCD risk factors, namely the promotion of PHBS (Perilaku Hidup Bersih dan Sehat / Clean and Healthy Behavior) through CERDIK (Cek kesehatan berkala / periodical health checks, Enyahkan rokok/eliminate smoking, Rajin aktivitas fisik/routinely physical activity, Diet sehat
**seimbang/balanced healthy diet, Istirahat cukup/adequate rest, and Kelola stress/manage stress** behavior. The main target of the activity is a group of healthy people, at risk, and people with NCD aged 15 years and over[4]. Promotion efforts are influenced by information and knowledge about CERDIK that they have and the individual's perception of themselves. The purpose of this study describes the knowledge of productive age individuals who are at risk of suffered of non-communicable diseases about CERDIK.

2. **Methodology**
The study design used was cross sectional. The study subjects were 213 individuals who were at risk of suffered of non-communicable diseases visiting a fast food and beverage restaurant in Blitar City, which were selected by simple random sampling. Data collection used the CERDIK knowledge questionnaire in March - August 2019. Data analysis used descriptive.

3. **Result and Discussion**
3.1 **Result**
Subject characteristics and perceptions are presented in Table 1 and subject knowledge is presented in Table 2.

**Table 1.** Characteristics and perceptions of the visitors subjects to fast food / beverage restaurant in Blitar City

| No. | Subject characteristic and perception | f  | %    |
|-----|--------------------------------------|----|------|
| 1   | Aged (years old):                    |    |      |
|     | Min: 17    Max: 43   Average: 21.10  |    |      |
|     | STD: 5.62                                        |    |      |
| 2   | Education:                              |    |      |
|     | - Junior school                        | 2  | 0.90 |
|     | - Senior school                        | 172| 80.80|
|     | - Diploma                              | 21 | 9.90 |
|     | - Bachelor                             | 5  | 2.30 |
|     | - Post graduate                        | 13 | 6.10 |
| 3   | Employment:                            |    |      |
|     | - Student (no work)                    | 185| 86.90|
|     | - House wife                           | 1  | 0.50 |
|     | - Lecturer                             | 13 | 6.10 |
|     | - Private                              | 14 | 6.50 |
| 4   | Perception about self-body:            |    |      |
|     | - Obesity                              | 72 | 33.80|
|     | - Ideal                                | 82 | 38.50|
|     | - Thin                                 | 59 | 27.70|
| 5   | Ever heard of CERDIK:                  |    |      |
|     | - I have                               | 197| 92.5 |
|     | - Never                                | 16 | 7.5  |
| 6   | Ever read of the word of CERDIK:       |    |      |
|     | - I have                               | 78 | 36.6 |
|     | - Never                                | 135| 63.4 |
| 7   | Ever read of the article of CERDIK:    |    |      |
|     | - I have                               | 116| 54.5 |
|     | - Never                                | 97 | 45.5 |
| 8   | Have received CERDIK information from health workers: |    |      |
|     | - I have                               | 133| 62.4 |
|     | - Never                                | 80 | 37.6 |
Table 2. Knowledge of the visitors subject to fast food / beverage restaurant in Blitar city

| No. | Knowledge of subject about CERDIK | f | % |
|-----|----------------------------------|---|---|
|     | Value of knowledge:             |   |   |
| 1   | - Minimum                        | 57|   |
|     | - Maximum                        | 90|   |
|     | - Average ($\bar{X}$)            | 79.22| |
|     | - Standard deviance (SD)         | 5.78| |
|     | Categories:                      |   |   |
|     | - Good ($> \bar{X} + 0.5 SD$)    | 64| 30.05|
|     | - Moderate ($\bar{X} \pm 0.5 SD$)| 87| 40.85|
|     | - Bad ($\bar{X} - 0.5 SD$)       | 62| 29.10|

3.2 Discussion

Fast food restaurant providers including coffee and ice cream beverage providers are growing rapidly in each city. Fast food restaurants in Blitar City have been around since 2015, beginning with fast food coffee beverage providers and developing fast food restaurants, international and local franchises. The existence of restaurants economically opens up employment opportunities and gives impact to changes in people's lifestyles. Traditional lifestyles change to modern lifestyles that tend to meet the needs of food or drinks in fast food restaurants. In fact, changing sleep habits become midnight or even before morning.

The fastest lifestyle changes occur in the productive age between 15 - 45 years. This productive age is an age group that is at risk of suffering from non-communicable diseases[4], so that this age group is a concern for prevention efforts. Prevention efforts using the CERDIK approach[5], aim that every productive age population can change lifestyles and improve healthy behavior. Warta Kesmas (Public Health News) also provides information on real actions for healthy living to support GERMAS (Gerakan Masyarakat Hidup Sehat / Actions of Healthy Living Community)[6,7].

The subjects involved were aged between 17-43 years who were classified as productive and appropriate age as individuals who were at risk to suffer from NCD. Peraturan Menteri Kesehatan RI (Regulation of Republic of Indonesia's Minister of Health) No. 4 in 2019 emphasized that the definition of productive age is 15 – 59 years which must be screened at least once a year for non-communicable diseases including: a) Measurement of height, weight, and abdominal circumference; b) Measurement of blood pressure; c) Examination of blood sugar; and d) History of risk behavior. That is, productive age is a very vulnerable age for NCD because at this age every individual has a tendency for lifestyle changes including lack of activity, always eating fast food or drinks, lack of rest and sleep, and excessive use of electronic goods that can cause as wrong one risk factor for suffering of NCD. Behavior of subjects according to characteristics (Table 1), namely subjects with a high school education or equivalent (80.80%) and not working (86.90%) so that they have enough time and use free time to behave unhealthily. Indicators individuals have a risk of suffering non-communicable diseases that are body conditions, including obesity. Individuals as subjects perceive their own body in an ideal state of 38.50% (82 people), the rest perceive their own body in obese and thin category. Such individual perceptions are based on the experience they have, so that they can compare their own body condition with others. Perception can help individuals interpret their own situation to the outside environment. Also, individual perceptions can actually find out the true condition of the body's condition[8]. After the individual understands the body's condition, prevention efforts can be made easily at a productive age to avoid non-communicable diseases. Non-communicable diseases in India include Cardiovascular diseases, Stroke, Diabetes Mellitus, Cancer, Chronic Lung diseases, and Accidents and Injuries[9]. Riskesdas (Basic Health Research) results in 2018 that there was an increase in the prevalence of non-communicable diseases compared to 2013, namely Cancer, Stroke, Chronic Kidney Disease, Diabetes Mellitus, and Hypertension[10]. Non-communicable diseases in the two countries that have large populations have similarities, namely Cancer, Stroke, Diabetes Mellitus, and Cardiovascular disease. In Indonesia, the control effort is known as a 4 by 4 strategy that is in line
with WHO's global recommendations (Global Action Plan 2013-2020), which focuses on four major non-communicable diseases including Cardiovascular, Diabetes Mellitus, Cancer, and Chronic obstructive pulmonary disease by controlling four factors the risk of causing non-communicable diseases is preventing unhealthy diets, lack of physical activity, smoking, and consuming alcohol[11,12]. In fact, it is supported by regulations that every productive age ie 15-59 years must be screened for health (as an early detect effort of non-communicable diseases[13].

CERDIK (Cek kesehatan berkala / periodical health checks, Enyahkan rokok/eliminate smoking, Rajin aktivitas fisik/routinely physical activity, Diet sehat seimbang/balanced healthy diet, Istirahat cukup/adequate rest, and Kelola stress/manage stress) in Indonesia as a change behavior effort of non-communicable diseases at productive age[11,12]. Table 1 illustrates that CERDIK is not new for individuals who are at risk suffered of NCD because the word CERDIK has been socialized through the GERMAS (Gerakan Masyarakat Hidup Sehat / Actions of Healthy Living Community) activity since 2016[6]. That is, the word CERDIK is not a foreign word for the people of Blitar City because it has been provided by health workers and individuals who have heard and seen the word of CERDIK (Table 1).

Knowledge about CERDIK that was asked in the questionnaire was 30 questions with a score 1 if Don't Know, score 2 if the answer was False, and a score of 3 if the answer was True, so the range of scores was 30-90. Differentiation in the score of Don't Know and Wrong is done because the Wrong answer has occurred but not according to the expectations of others and the Don't Know illustrates that there is no thought process.

Productive age individuals who have knowledge of CERDIK in the moderate and good category are around 74% (Table 2), illustrating that individuals already have knowledge of CERDIK. Knowledge as a basis for individuals to make decisions about the importance of healthy living for yourself. Furthermore, individuals take actions of CERDIK and make it a habit every day. Behavior consists of three elements, namely knowledge, attitudes, and actions[3] in sequence. That is, individuals who have knowledge can determine a positive attitude for yourself to take actions of CERDIK. If, actions of CERDIK are carried out every day and in any place it is called a habitual.

Individuals who have knowledge about CERDIK in the bad category need to get the attention of health workers. This is in accordance with the goal of health development is to prepare a superior and healthy generation. Knowledge internalized by individuals is personal knowledge. And, at the level of internalization including the explicit knowledge category[14]. That is, individuals can express through answers to questions in the questionnaire because knowledge is a process of cognition (an effort to recognize through one's own experience).

4. Conclusion
Knowledge as a cognitive process of productive age individuals who are at risk to suffered of non-communicable diseases that are moderate and good categorized as much as 74%.

References
[1] Kemenkes RI 2016 Pedoman Umum Program Indonesia Sehat dengan Pendekatan Keluarga (Jakarta: Kementerian Kesehatan RI)
[2] Kemenkes RI 2016 Asosiasi Pemerintah Kabupaten Seluruh Indonesia Bersepakat Untuk Cegah dan Kendalikan Penyakit Tidak Menular
[3] Notoatmodjo S 2012 Pendidikan dan Perilaku Kesehatan (Jakarta: Rineka Cipta)
[4] Kemenkes RI 2017 Profil Kesehatan Indonesia Tahun 2016 (Jakarta: Kementerian Kesehatan RI)
[5] Kemkes RI 2016 Buku : Informasi CERDIK
[6] Kemenkes RI 2016 GERMAS Wujudkan Indonesia Sehat
[7] KemenkesRI D K 2017 Warta Kesmas Edisi 01-2017 27
[8] Gibson J L, Ivancevich J M, Donely J H and Konopaske R 2012 *Organizations : Behavior, Structure, Processes* vol 66 (New York: McGraw-Hill)

[9] Upadhyay R P 2012 An overview of the burden of non-communicable diseases in India. *Iran. J. Public Health* **41** 1–8

[10] Kemenkes RI 2018 Potret Sehat Indonesia dari Riskesdas 2018

[11] Kemenkes RI D J P dan P P 2015 Strategi Pencegahan dan Pengendalian PTM di Indonesia - Direktorat P2PTM

[12] Kemenkes RI 2015 *Buku Panduan “Generasi Cinta Sehat, Siap Membangun Negeri” dalam rangka Hari Kesehatan Nasional ke-51 tahun 2015* (Jakarta: Kementerian Kesehatan RI)

[13] Kemenkes RI 2016 *Peraturan Menteri Kesehatan Republik Indonesia Nomor 43 Tahun 2016 Tentang Standar Pelayanan Minimal Bidang Kesehatan* (Indonesia)

[14] Burgin M S 2016 *Theory of Knowledge: Structures and Processes* vol 5 (Singapore: World Scientific Publishing Co. Pte. Ltd.)