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**LEMBAR**  
**HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW***  
**KARYA ILMIAH : JURNAL ILMIAH**

Judul Artikel Ilmiah : **Plant-based Diet and Iron Deficiency Anemia in Sundanese Adolescent Girls at Islamic Boarding Schools in Indonesia**

Nama semua penulis : **Mohammad Zen Rahfiludin**, Septo Pawelas Arso, Tri Joko, Alfa Fairuz Asna, Retno Murwani, Lilik Hidayanti

Status Pengusul (coret yg tidak perlu) : ~~Penulis Utama/~~ **Penulis Utama & Korespondensi/** ~~Penulis Korespondensi/~~ ~~Penulis Anggota~~

**Status Jurnal:**

- Nama Jurnal : **Journal of Nutrition and Metabolism**
- Tahun terbit/Vol/No/halaman : 2021/Volume 2021/No. 1 / Page 1-7
- Edisi (bulan, tahun) : September 2021
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- Alamat WEB Jurnal : <https://www.hindawi.com/journals/jnme/2021/6469883/>
- Terindex di : Scopus coverage years : from 2010 to Present Q2 SJR 2020 = 0,789

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| Komponen Yang Dinilai                                             | Nilai Reviewer |             | Nilai Rata-rata/Nilai Akhir yang diperoleh |
|-------------------------------------------------------------------|----------------|-------------|--------------------------------------------|
|                                                                   | Reviewer I     | Reviewer II |                                            |
| a. Kelengkapan unsur isi jurnal (10%)                             | 4              | 4           | 4                                          |
| b. Ruang lingkup dan kedalaman pembahasan (30%)                   | 10,5           | 11,5        | 11                                         |
| c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%) | 10,5           | 12          | 11,25                                      |
| d. Kelengkapan unsur dan kualitas penerbit (30%)                  | 11             | 12          | 11,5                                       |
| <b>Total = (100%)</b>                                             | 36             | 39,5        | <b>37,75</b>                               |
| <b>Nilai pengusul = 60% x 37,75 = 22,65</b>                       |                |             |                                            |

Reviewer 1



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Reviewer 2



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☐ Jurnal Internasional
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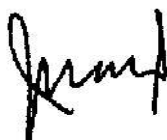
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| a  | Kelengkapan unsur isi artikel (10 %)                           | 4                                                                   | 4                          |
| b  | Ruang lingkup & kedalaman pembahasan (30 %)                    | 12                                                                  | 10,5                       |
| c  | Kecukupan dan kemutahiran data/informasi dan metodologi (30 %) | 12                                                                  | 10,5                       |
| d  | Kelengkapan unsur dan kualitas jurnal (30%)                    | 12                                                                  | 11                         |
|    | Nilai Total                                                    | <b>40</b>                                                           | 36                         |
|    | <b>Nilai yang didapat pengusul: 60% x 36 = 21,6</b>            |                                                                     |                            |

**Catatan Penilaian artikel oleh Reviewer**

|   |                                                         |                                                                                                                                                                                                                                             |
|---|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Kelengkapan unsur isi artikel                           | Unsur artikel ini sudah memenuhi panduan dari jurnal yang dituju yang terdiri dari judul, abstrak, <i>introduction</i> , <i>methods</i> , <i>results</i> , <i>discussion</i> , <i>conclusions</i> , dan <i>references</i> dengan jumlah 45. |
| b | Ruang lingkup & kedalaman pembahasan                    | Pembahasan fokus pada pola makan pangan nabati dengan anemia pada remaja putri, penjabaran tiap variabel cukup detail dengan referensi internasional serta adanya perbandingan dengan penelitian sebelumnya.                                |
| c | Kecukupan dan kemutahiran data/informasi dan metodologi | Metode artikel dijabarkan desain penelitian, lokasi dan waktu penelitian, populasi dan teknik pengambilan sampel, pengukuran yang dilakukan dan <i>cut-off point</i> , serta analisis statistik yang digunakan.                             |
| d | Kelengkapan unsur dan kualitas jurnal                   | Artikel ini dipublikasikan pada jurnal berindex scopus Q4 dengan <i>impact factor</i> SJR 2020: 0,789.                                                                                                                                      |

Surabaya, 2021  
Reviewer 1



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LEMBAR  
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☐ Jurnal Nasional berbahasa Indonesia Terakreditasi peringkat 3 atau 4  
☐ Jurnal Nasional

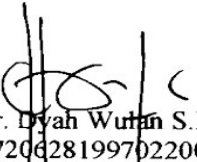
**Hasil Penilaian Peer Review:**

| No | Komponen yang dinilai                                          | Nilai Maksimal Artikel Jurnal bereputasi & memiliki impact factorQ2 | Nilai yang didapat artikel |
|----|----------------------------------------------------------------|---------------------------------------------------------------------|----------------------------|
| a  | Kelengkapan unsur isi artikel (10 %)                           | 4                                                                   | 4                          |
| b  | Ruang lingkup & kedalaman pembahasan (30 %)                    | 12                                                                  | 11,5                       |
| c  | Kecukupan dan kemutahiran data/informasi dan metodologi (30 %) | 12                                                                  | 12                         |
| d  | Kelengkapan unsur dan kualitas jurnal (30%)                    | 12                                                                  | 12                         |
|    | Nilai Total                                                    | <b>40</b>                                                           | 39,5                       |
|    | <b>Nilai yang didapat pengusul: 60% x 39,5 = 23,7</b>          |                                                                     |                            |

**Catatan Penilaian artikel oleh Reviewer**

|   |                                                         |                                                                                                                                                                                                                                                                                             |
|---|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Kelengkapan unsur isi artikel                           | Isi artikel sudah sesuai dengan panduan dari jurnal yang dituju yaitu <i>Journal of Nutrition and Metabolism</i> , yang meliputi: <i>introduction, materials and methods, results, disscussion and conclusions, as well as references&amp;abstract</i>                                      |
| b | Ruang lingkup & kedalaman pembahasan                    | Topik yang diangkat mengenai konsumsi/pola makan berbasis sayuran yang dikaitkan dengan anemia pada remaja putri di <i>boarding schools</i> . Pembahasan cukup baik dengan mengambil referensi dari database internasional seperti scopus, untuk merangkum hasil penelitian dan kesimpulan. |
| c | Kecukupan dan kemutahiran data/informasi dan metodologi | Metode <i>literature review</i> dengan sumber database yang digunakan sangat baik yaitu scopus dan beberapa database lainnya yang terbit selama 2010-2020. Penyajian sangat baik, teknik pengambilan <i>literature</i> dijelaskan dengan baik.                                              |
| d | Kelengkapan unsur dan kualitas jurnal                   | Artikel dipublikasikan pada jurnal internasional bereputasi dan memiliki <i>impact factor</i> Q2 SJR 2020: 0,789.                                                                                                                                                                           |

Lampung, 2021  
Reviewer 2

  
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# Plant-based Diet and Iron Deficiency Anemia in Sundanese Adolescent Girls at Islamic Boarding Schools in Indonesia

Rahfiludin M.Z.<sup>a</sup> ✉ , Arso S.P.<sup>b</sup> ✉ , Joko T.<sup>c</sup> ✉ , Asna A.F.<sup>a</sup> ✉ , Murwani R.<sup>d</sup> ✉ , Hidayanti L.<sup>e</sup> ✉

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## Abstract

Reaxys Chemistry database information

Indexed keywords

SciVal Topics

Chemicals and CAS Registry Numbers

Metrics

## Abstract

Background. Adolescent girls are at risk for iron deficiency anemia (IDA) due to the higher demand of iron for growth and the loss of blood during menstruation. Consumption of foods containing iron that have higher bioavailability can reduce the risk of IDA although diets that are largely plant-based, like those consumed by many Sundanese people, may not contain sufficient bioavailable iron. Here, we

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Association between nutrient intake and anemia in Brazilian adolescents

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(2014) *Annals of Nutrition and Metabolism*

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Journal of Nutrition and Metabolism / **About this Journal**

## On this page

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# About this Journal

## Aims and scope

*Journal of Nutrition and Metabolism* is a peer-reviewed, Open Access journal that publishes original research articles and review articles covering the broad and multidisciplinary field of human nutrition and metabolism. The journal welcomes submissions on studies related to obesity, diabetes, metabolic syndrome, molecular and cellular biology of nutrients, foods and dietary supplements, as well as macro- and micronutrients including vitamins and minerals.

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## Journal metrics

|                              |          |
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| Acceptance rate              | 36%      |
| Submission to final decision | 119 days |
| Acceptance to publication    | 32 days  |
| CiteScore                    | 3.300    |
| Journal Citation Indicator   | 0.560    |
| Impact Factor                | -        |

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2021



Journal of Nutrition and Metabolism - Volume 2021 - Article ID 6469883 - Research Article

**Plant-based Diet and Iron Deficiency Anemia in Sundanese Adolescent Girls at Islamic Boarding Schools in Indonesia**

Mohammad Zen Rahfiludin | Septo Pawelas Arso | ... | Lilik Hidayanti

13 Sep 2021

PDF



Journal of Nutrition and Metabolism - Volume 2021 - Article ID 4041451 - Research Article

**Is Calorie Labeling on Menus Related to Weight Disturbances among Females in Saudi Arabia?**

Hala Al-Otaibi | Tahani Al-Sandal | Haia O. Elkatr

03 Sep 2021

PDF



Journal of Nutrition and Metabolism - Volume 2021 - Article ID 6757916 - Research Article

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## Research Article

# Is Calorie Labeling on Menus Related to Weight Disturbances among Females in Saudi Arabia?

Hala Al-Otaibi <sup>1</sup>, Tahani Al-Sandal,<sup>1</sup> and Haiam O. Elkatr<sup>1,2</sup>

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Received 3 July 2021; Accepted 26 August 2021; Published 3 September 2021

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Calorie labeling is a recent initiative from the Saudi Food and Drug Authority (SFDA) aimed to reduce the prevalence of noncommunicable diseases (NCDs) by influencing people to make healthier food choices when they eat out and can also help people with weight disturbances to be more aware of their calorie intake. The present study aimed to investigate the association between the use of calorie labeling on restaurant menus, calorie intake, weight concern, body weight perception, and weight-control behaviors among young women. A quasi-experimental study was conducted among female students at a university restaurant. Participants were assigned to two groups: food menus with (experimental group) and without (control group) calorie labeling. The logistic regression model assessed the predictors of using calorie information separately for the experimental and control groups. Calorie labeling had a significant effect on reducing calorie consumption in the experimental group by 59 calories compared to the control group. The higher weight concern in the control group ( $OR = 0.410$ ; 95% CI 0.230–0.730;  $P \leq 0.002$ ) was a predictor for using calorie information. The experimental group had higher weight concern ( $OR = 1.530$ ; 95% CI 1.107–2.115;  $P \leq 0.01$ ) and body weight perception ( $OR = 4.230$ ; 95% CI 1.084–6.517;  $P \leq 0.038$ ) and lower calorie intake ( $OR = 1.005$ ; 95% CI 1.001–6.517;  $P \leq 0.008$ ) predictors for using calorie information. Weight-control behaviors did not significantly predict the use of calorie information in the groups. Calorie labeling might increase the weight disturbances among young females. More investigation is needed across various populations to gain a better understanding of calorie labeling as an effective food choice among people who are vulnerable to weight disturbances or already have weight disorders.

## 1. Introduction

Obesity is an excessive accumulation of fat inside the body's tissues, which is harmful to a person's health. It has been classified as a chronic disease and a major public health problem [1] as it increases people's susceptibility to many chronic diseases such as cancers and cardiovascular diseases. These diseases account for approximately 71% of deaths worldwide [2]. Globally, studies have shown that obesity rates have risen dramatically, nearly tripling between 1975 and 2016. In 2016, more than 1.9 billion adults were overweight and more than 650 million people were obese [2]. If no action is taken to counter the spread of obesity, it is estimated that approximately half of the world's population will be overweight or obese by 2030 [3].

Saudi Arabia has witnessed significant cultural development over the last few decades, which has led to a difference in lifestyle, an increase in the prevalence of obesity to 33.7%, and an increase in the proportion of overweight inhabitants by 68.2% [4]. Thus, obesity has become a major public health concern, and seven of ten people in Saudi Arabia are either obese or overweight [5]. This is attributed to the spread of sit-down restaurants, fast-food restaurants, coffee shops, and home delivery services, which contribute to a higher calorie intake than the daily requirement.

In recent years, many government initiatives have emerged that aim to raise public health awareness among individuals and communities. In addition, they addressed the quality of food required to help reduce the prevalence of obesity among citizens and maintain healthy lifestyles. One

## Research Article

# Dietary Vitamin C and Age-Induced Lipid and Hormonal Metabolic Changes in a Humanized Mouse Model Not Synthesizing Vitamin C and Producing Lipoprotein(a) [Gulo (-/-); Lp(a)+]

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The lack of ability to produce vitamin C innately and the ability to synthesize human lipoprotein(a) (Lp(a)) are two unique metabolic features present in humans, compared with most other animal species. The Gulo (-/-) and Lp(a)+ mouse model displays these two features and is therefore suitable for the study of metabolic aspects relevant to human metabolism. It is a well-known fact that vitamin C is essential in collagen synthesis, and in maintaining extracellular matrix integrity, as well as being a powerful antioxidant and cofactor in many metabolic pathways, which makes it a critically important micronutrient for health and healthy aging. In this study, we investigated the effects of a long-term intake of high and low doses of vitamin C on age-related metabolic lipid and hormonal changes in young (eight to nine months), mid-aged (one year), and old (two years) Gulo (-/-) and Lp(a)+ mice. We observed that chronic vitamin C deficiency resulted in a less healthy metabolic lipid profile, impaired serum insulin-like growth factor (IGF-1), and sex-hormones secretion, all of which can accelerate the development of various pathological conditions in the aging process. The most susceptible to the negative impact of vitamin C deficiency were the young (eight to nine months) and old (two years) mice. Our study conducted in this humanized mouse model indicates that sustained adequate vitamin C intake is essential in maintaining a healthier metabolic profile, important in preventing age-related pathologies throughout the aging process.

## 1. Introduction

One of the distinct features of human metabolism compared with about 99% of other animals is the lack of internal vitamin C synthesis and the production of human lipoprotein(a).

Humans and a few animal species, including nonhuman primates and guinea pigs, are not able to manufacture vitamin C internally, owing to a loss of gene coding for L-gulonolactone oxidase. At the same time, humans, unlike the majority of animals, with only few exceptions (primates, guinea pigs, and hedgehogs) can synthesize lipoprotein(a) (Lp(a)). Lp(a), a variant of low-density lipoprotein (LDL), has been associated with the development of coronary heart disease and proven to be an atherosclerosis risk factor [1]. The Lp(a) molecule contains LDL, linked by a disulfide

bridge to a large protein, apolipoprotein(a) (apo(a)), making it more adhesive, and its vascular deposition parallels the progression of atherosclerosis [2, 3].

These two unique aspects of human metabolism appear related, since internal production of Lp(a), which occurred about 60 million years ago in our primate ancestors, coincided with a loss of the ability to synthesize vitamin C innately. In the most rational explanation of these overlapping genetic events, Rath and Pauling proposed [4] that Lp(a) functions as a physiological surrogate for vitamin C. It aims primarily at protecting the integrity of the vascular wall compromised by vitamin C deficiency, through its vascular deposition. In this function, vascular deposits could prevent the deadly consequences of blood loss from scurvy [4]. However, with sustained long-term vitamin C deficiency, various pathological conditions develop, leading to

## Research Article

# Effects of Fermented *Houttuynia cordata* Thunb. on Diabetic Rats Induced by a High-Fat Diet with Streptozotocin and on Insulin Resistance in 3T3-L1 Adipocytes

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*Houttuynia cordata* Thunb. (*plukaow* in Thai language) exhibits several biological properties, and many products of *H. cordata* are therefore commercially available for human consumption, such as fermented juice or tablets as food supplements. This study aimed to investigate the antidiabetic effects of fermented *H. cordata* (HC) in high-fat diets and streptozotocin-induced diabetic rats. Oral administration of HC at a dose of 100 mg/kg.bw not only maintained bodyweight, food intake, and water consumption but also reduced blood glucose levels and improved glucose tolerance ability in the diabetic rats. Moreover, HC also decreased oxidative stress markers in serum and inflammatory-related mediators in pancreas tissues, indicating the improvement of pancreatic beta-cell function in the diabetic rats. In order to clarify the mechanism of HC, the effects of ethanolic extract of HC (HCE) on insulin resistance were determined in 3T3-L1 adipocytes. FHE could recover glucose uptake and decrease lipolysis in palmitate-treated 3T3-L1 adipocytes. Taken together, these results demonstrate that HC can improve diabetic symptoms by enhancing insulin sensitivity, reducing oxidative stress, and suppressing inflammation.

## 1. Introduction

Type 2 diabetes mellitus is dramatically increasing worldwide and causes morbidity and mortality, as well as economic burdens on countries [1]. Epidemiologic studies have demonstrated the relationship between an increased incidence of type 2 diabetes and obesity-associated insulin resistance [2]. High accumulation of fat in adipose tissue plays an important role in chronic low-grade inflammation, leading to an increase in proinflammatory cytokine production [3]. These proinflammatory cytokines can also reduce insulin sensitivity in adipocytes, which cause the release of free fatty acids into the bloodstream [4–6]. Consequently, free fatty acids, especially palmitate, can induce muscle cells

and liver cells to become insulin resistant, resulting in hyperglycemia [7, 8]. The goal of treating diabetes as a medical condition is to reduce blood glucose levels, which can prevent or delay the occurrence of complications relating to the disease [9]. Nevertheless, common types of oral medication used for the treatment of diabetes have demonstrated side effects and caused adverse reactions [10]. Currently, many herbal medicines have been recommended for the prevention and treatment of diabetes, in addition to conventional medication [11].

*Houttuynia cordata* Thunb., commonly known in Thai as *plukaow*, is a natural herb indigenous to local areas of Northern Thailand that is used in cooking in the region. It has been recognized in folk medicine for being used to

## Research Article

# High-Prevalence Stunting in Preschool Children (1–5 Years) Attending Selected Health Centers in a Food Rich Area-Bushenyi District Southwestern Uganda

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The prevalence of stunting among children in Uganda and Sub-Saharan Africa is still high, and if Uganda is to achieve the food-related Sustainable Development Goals (SDGs), it must urgently invest in improving nutrition and sanitation. In a food rich area like Bushenyi, chronic undernutrition could be due to several other factors than mere scarcity of food. *The Objective(s)*. This study was carried out to determine the prevalence and socioclinical factors responsible for chronic undernutrition (stunting) among preschool children aged 1–5 years in selected Health facilities in Bushenyi district. *Methodology*. This was a cross-sectional study assessing the prevalence of stunting and its associated factors among children aged 1–5 years attending selected health centers in Bushenyi District. Data was collected using a pretested questionnaire, taking anthropometric measurements (height/length), and stool analysis for eggs of soil-transmitted helminthes. Prevalence of stunting was presented as percentages. Logistic regression with adjusted prevalence ratio was performed to test the association between the sociodemographic and clinical factors and stunting at bivariate levels of analysis. *Results*. Most of the children were female, with a median age of 2.1 years and resided in semiurban areas of Bushenyi with their parents. Prevalence of stunting was 89.3%. Only 10.7% of the children were infested with soil-transmitted helminthes. Children likely to be stunted were those who drank unboiled water and were exclusively breastfed. *Conclusion*. There is a high prevalence of chronic malnutrition in Bushenyi district associated with parents'/care takers' low level of knowledge.

## 1. Introduction

Under nutrition is an underlying cause of over half of child deaths. It is associated with lower school enrollment and poor cognitive functioning among children with subsequent effects on performance, and social wellbeing of communities in developing countries like Uganda [1]. Undernutrition indicators include wasting, stunting, and underweight. Stunting or low height-for-age (HAZ) is a good indicator of undernutrition and represents a status of chronic nutritional stress in children [2].

In 2010, it was estimated that 171 million preschool aged children were stunted; 95% of whom lived in developing countries [3]. In Uganda, data from the 2016 Uganda Demographic and Health Survey indicate that 3 in 10 children under the age of 5 are stunted [4]. The proportion of stunted children is highest in Western Uganda with a prevalence of 34.9% [5].

Despite the high levels of malnutrition, 89% of Uganda is defined by the Food and Agricultural Organization (FAO) as being food secure with the Northern and Eastern parts being most vulnerable to food insecurity [6, 7]. However, the



**KOMISI ETIK PENELITIAN KESEHATAN  
HEALTH RESEARCH ETHICS COMMITTEE  
FAKULTAS KESEHATAN MASYARAKAT UNIVERSITAS DIPONEGORO  
FACULTY OF PUBLIC HEALTH DIPONEGORO UNIVERSITY**

**KETERANGAN LOLOS KAJI ETIK  
DESCRIPTION OF ETHICAL APPROVAL  
"ETHICAL APPROVAL"**

No : 29/EA/KEPK-FKM/2020

Protokol penelitian yang diusulkan oleh :  
*The research protocol proposed by*

Peneliti utama : Dr. M. Z. Rahfiludin, SKM, M.Kes  
Principle Investigator

Nama Institusi : Universitas Diponegoro  
*Name of the Institution*

Anggota Peneliti : 1. DR. Septo Pawelas Arso, S.KM., MARS.  
*Member* 2.Dr. Ir. Tri Joko, M.Si. 3.Alfi Fairuz Asna, S.Gz., M.PH.

Dengan judul :  
*Title*

**"POLA MAKAN BERSUMBER PANGAN NABATI (PLANT BASED DIET) DAN STATUS BESI PADA REMAJA  
SANTRIWATI SUKU SUNDA"**

**" PLANT BASED DIET AND IRON STATUS IN ADOLESCENT SANTRIWATI SUNDA TRIBE"**

Dinyatakan layak etik sesuai 7 (tujuh) Standart WHO 2011, yaitu 1) Nilai Sosial, 2) Nilai Ilmiah, 3) Pemerataan Beban dan Manfaat, 4) Risiko, 5) Bujukan/Eksploitasi, 6) Kerahasiaan dan Privacy, dan 7) Persetujuan Setelah Penjelasan, yang merujuk pada Pedoman CIOMS 2016. Hal ini seperti yang ditunjukkan oleh terpenuhinya indikator setiap standar.

*Declared to be ethically appropriate in accordance to 7 (seven) WHO 2011 Standards, 1) Social Values, 2) Scientific Values, 3) Equitable Assessment And Benefits, 4) Risks, 5) Persuasion/Exploitation, 6) Confidentiality and Privacy, and 7) Informed Consent, referring to the 2016 CIOMS Guidelines. This is as indicated by the fulfillment of the indicators of each standard.*

Pernyataan Laik Etik ini berlaku selama kurun waktu tanggal 23 March 2020 sampai dengan tanggal 23 March 2021

*This declaration of ethics applies during the period March, 23th 2020 until March, 23th 2021*

Semarang, 23 March 2020  
Professor and Chairperson,



dr. M. Sakundarno Adi, M. Sc, Ph.D.  
NIP. 196401101990011001