

THESIS

**ASSOCIATION OF STUNTED IN OBESE ADOLESCENT AND THE RISK OF
METABOLIC SYNDROME**



BY

MUHAMMAD HARITS

NIM: 011911133088

MEDICAL STUDY PROGRAM

FAKULTAS KEDOKTERAN UNIVERSITAS AIRLANGGA

SURABAYA

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METABOLIC SYNDROME DR. SOETOMO**

Scientific Paper

To fulfill the requirements of Research Module lecture

Fakultas Kedokteran Universitas Airlangga

Written By :

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**MEDICAL STUDY PROGRAM
FAKULTAS KEDOKTERAN
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2022

EXAMINER CONFIRMATION SHEET

ASSOCIATION OF STUNTED IN OBESE ADOLESCENT AND THE RISK OF METABOLIC SYNDROME

Thesis
By

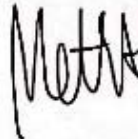
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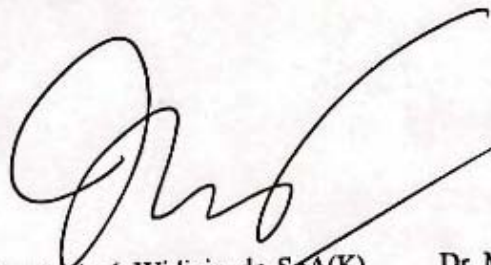
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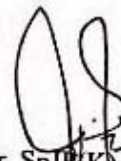
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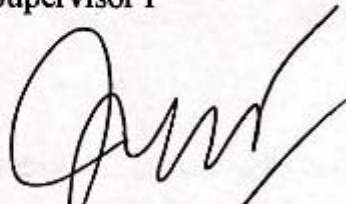
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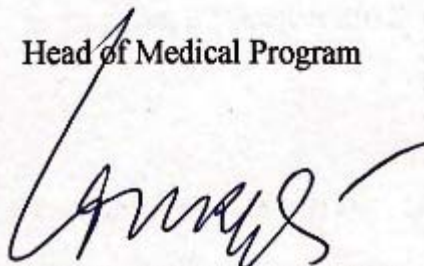
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STATEMENT OF ORIGINALITY

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I declare that I have not committed plagiarism in the writing of my thesis entitled:

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Thus this statement letter I made truthfully.

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Surabaya, 27 October 2022

Writer

ASSOCIATION OF STUNTED IN OBESE ADOLESCENT AND THE RISK OF METABOLIC SYNDROME

ABSTRACT

Background : Indonesia has a high prevalence of stunting. It is even ranked fifth among countries with the highest burden of stunted children. The stunting rate for children in Indonesia based on Riskesdas is 30.8 percent in 2018. Stunting that is not treated at the age of 5 years will be at risk. In Indonesia from 1999 to 2004 the prevalence of overweight and obesity increased from 4.2 and 1.9% in childhood to 8.8 and 3.2% in adolescence. The increase in the incidence of obesity is in line with the increase in the incidence of metabolic diseases.

Purpose : To analyze the association of stunted in obese adolescents and the risk of metabolic syndrome.

Methodes : The type of the research is an analytic observational study. The design of the research is a cross sectional study using the medical records from the inpatient of the Child Health Department of Dr. Soetomo Hospital between October 2019 - December 2019. The sample is obese adolescents aged 13-18 years from Junior High School and Junior High School in Sidoarjo and Surabaya who meet the criteria for metabolic syndrome.

Result : Based on data taken randomly between male and female gender, it was found that there is no significant association in stunted obese adolescents. Central obesitas (92%) is the most common component of the metabolic syndrome experienced by the sample, followed by Low HDL (47%), Hypertension (33%), Hypertriglyceride (19%), Hyperglycemia (6%). Chi square analysis test was carried out to determine the association between obese adolescents with metabolic syndrome found p-value = 0.169 or had a non-significant association.

Conclusion : There are significant differences in BMI, FPG and Blood Pressure between obese adolescents who are stunted and the risk of metabolic syndrome.

Keyword : Stunted, Obese Adolescent, Metabolic Syndrome

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LIST OF ABBREVIATION

AT	: Adipose Tissue
BH	: Body Height
BL	: Body Length
CHD	: Coronary Heart Disease
Cm	: Centimeter
DBP	: Diastolic Blood Pressure
FPG	: Fasting Plasma Glucose
HDL	: High Density Lipoprotein
IFG	: Impaired Fasting Glucose
IGT	: Impaired Glucose Tolerance
LDL	: Low Density Lipoprotein
MetS	: Metabolic Syndrome
SBP	: Systolic Blood Pressure
SES	: Socioeconomic Status
T2D	: Type 2 Diabetes
WHO	: World Health Organization

LIST OF ADDENDUMS

No Addendums.