



Universitas  
Alma Ata  
The Globe Inspiring University

# ABSTRACT FOR 4<sup>th</sup> ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) CONFERENCE 2022

**Towards Achieving Health-Related Sustainable  
Development Goals (SDGs) Current Situation and The  
Next Agenda**

HELD FROM OCTOBER 26, 2022



2022

UNIVERSITAS ALMA ATA  
YOGYAKARTA, INDONESIA

# **THE 4<sup>th</sup> ASIA PACIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022**

*Towards Achieving Health-Related  
Sustainable Development Goals (SDGs)  
Current Situation and The Next Agenda*

Edited on behalf scientific committee of the 4<sup>th</sup> APHNI 2022 University of Alma Ata

Dr. Veriani Aprilia, STP., M.Sc.  
Siska Ariftiyana, S.Gz.  
Annisaa Nurmasari, A.Md., Keb.

Alma Ata University Press



The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. The 17 SDGs are integrated—they recognize that action in one area will affect outcomes in others and that development must balance social, economic, and environmental sustainability. Countries have committed to prioritizing progress for those who are furthest behind and Indonesia is one of the countries involved in this agenda. The SDGs are designed to end poverty, hunger, AIDS, and discrimination against women and girls. The creativity, know-how, technology, and financial resources from all of society are necessary to achieve the SDGs in every context.

With the theme "Changing Our World: The 2030 Agenda for Sustainable Development", the SDGs, which contain 17 Goals and 169 Targets, are a global action plan for the next 15 years (effective from 2016 to 2030), to reduce poverty, reduce and protect the environment. The SDGs apply to all countries (universally) so that all countries without exception for the goals of developed countries have a moral obligation to achieve and target the SDGs.

Different from its predecessor the Millennium Development Goals (MDGs), the SDGs are designed to involve all development actors, be it the Government, Civil Society Organizations (CSOs), the private sector, academia, and so on. Approximately 8.5 million citizens' voices around the world also contribute to the SDGs Goals and Targets. Leaving No One Behind is the main Principle of the SDGs. With this principle, at least the SDGs must be able to answer two things, namely, Procedural Justice, namely the extent to which all parties, especially those who have been left behind, can be involved in the entire development process, and Substance of Justice, namely the extent to which development policies and programs can or can answer the problems of citizens, especially disadvantaged groups.

The Asia-Pacific Partnership and Nutrition Improvement (APHNI) is an international conference activity that has been routinely held by the Faculty of Health Sciences, Alma Ata University since 2019. The collaborations have been established with national and international institutional partners, as well as health professional organizations. Discussions will explore strategies in improving quality, services, and the role of post-pandemic health technology in Asia Pacific countries.

This conference aims to provide opportunities for all researchers and lecturers of instructors from various universities and other academic institutions, health sciences students, and health professionals from various health service facilities to join this event. The policy maker from local government, regional, and national health offices, social service, and other health professional organizations work together to discuss Towards Achieving Health-Related Sustainable Development Goals (SDGs): Current Situation and The Next Agenda

# Preface

Assalamu'alaikum, Wr. Wb.

Peace be upon you, and Allah mercy and blessings,

Alhamdulillah, Praise and Gratitude we pray to Allah SWT, who has given His mercy and grace, so that we can complete the abstract book for the participants of the 4th Asia Pacific Partnership on Health and Nutrition Improvement (APHNI) Conference 2022 which was held virtually on October 26, 2022.

We hope that this abstract book can provide benefits both theoretically and clinically for the participants of the 4th Asia Pacific Partnership on Health and Nutrition Improvement (APHNI) Conference 2022. We realize that there is a lot of imperfection in the preparation of this abstract book. For this reason, we hope for constructive criticism and suggestions so that we can become better at preparing the next abstract book and organizing the event as a whole in the coming year.

Finally, we hope that this book can be useful for all those who need it.

Wassalamualaikum, Wr. Wb.

Yogyakarta, 6 November 2022

Chairman of the 4th APHNI 2022

Dr. Muhammad Abdurrahman Munir, M.Sc.



# Editorial Information

## Scientific Committee

1. Dr. Veriani Aprilia, S.TP., M.Sc.
2. Dr. Arif Sabta Aji, S.Gz.
3. Dr. Siti Nurunnayah, S.ST., M.Kes.
4. Edi Sampurno Ridwan, M.nurs., Ph.D.
5. Apt. Nurul Kusumawardani, M.Farm.
6. Fatma Siti Fatimah, S, Kep., Ners, MMR.
7. Anafrin Yugistyowati, M.Kep., Sp.Kep., An.
8. Wahyuningsih, S.Kep., Ners., M.Kep.
9. Fatimah, S.SiT., M.Kes.
10. Siska Ariftiyana, S.Gz.
11. Annisaa' Nurmasari, A.Md.,Keb

## List of Reviewers

1. Dr. Arif Sabta Aji, S, Gz.
2. Wahyuningsih, S.Kep., Ners., M.Kep
3. Dr. Siti Nurunnayah
4. Anafrin Yugistyowati
5. Apt. Nurul Kusumawardani, M.Farm

**This first edition published 2021**

**ISBN : 978-623-94999-7-6 (PDF)**

## Editorial office

Alma Ata University Press  
Jalan Brawijaya No.99, Bantul  
Daerah Istimewa Yogyakarta 55183  
Email: [aaup@almaata.ac.id](mailto:aaup@almaata.ac.id)  
Telp. (0274) 434 228

## Editor

Siska Ariftiyana, S.Gz.

The right of the author to be identified as the author of this work has been asserted in accordance with the Copyright and Designs.

# TABLE OF CONTENT

Abstract No	Title	Page
<b>THEME 1</b>	<b>Nutrition, Food Security, Herbal and Natural Medicine</b>	
NFH-001	Impact of Household Income on Animal Source Food Consumption in Complementary Feeding: A Cross-Sectional Survey ICFQ-COVID-19 Study	2
NFH-002	The Analysis of Factors to Predict Eating behavior among Adolescent Girls: A Community-Based Study in Indonesia	3
NFH-003	The Effect of Education on Knowledge and Attitude in Halal and Thoyyib Food Selection	4
NFH-004	Antimicrobial Activity of Telang leaf Extract Againsts Staphylococcus Aureus and Candida Albicans	5
NFH-005	Determination Of Total Flavonoid Levels Of Sembung Rambat (Mikania Micrantha) Ethanolic Extract Capsules By Spectrophotometry-Uv/Vis	6
NFH-006	Malnutrition as an Associated Factor of the Sarcopenia Risk Using SARC-Calf and SARC-Calf 31 but not SARC-F in Oncology Patients Undergoing Chemotherapy	7
NFH-007	The Effect of Alternative Moisture Balance Dressing Polyhexamethylene Biguanide (phmb) Impregnated Gauze on Superficial Burn in White Rats (Rattus Norvegicus)	9
NFH-008	Antibiotic Prescribing Pattern In Patients With Diabetes Mellitus Complications In Panembahan Senopati Bantul Hospital	10
NFH-009	Determinant Of Smoking Cessation Behavior Among Low Dependence Smokers: A Discrete Choice Experimen	11
NFH-010	Subchronic Toxicity Testing of Porang Flour (Amorphophallus oncophylus) Macerated with Strobilanthes crisa Extract on Liver Histopathology and Hepatic Activity Enzyme in Wistar Male Rats (Rattus norvegicus)	12
NFH-011	Irritation and Acute Dermal Toxicity Test for Gel Formulation of Cinnamon Oil and Red Betel Leaf Extract	13
NFH-012	The Effect of n-Hexane Fraction of Ethanol Extract Moringa Leaf on Low-Density Lipoprotein (LDL) Levels of Sprague Dawley Male Rats	14
<b>THEME 2</b>	<b>Maternal Health, Child Health, Nursing and COVID-19</b>	
MNC-001	Analysis of Determinant Factors of Type 2 Diabetes Mellitus Incidence in Agricultural Populations	9
MNC-002	Risk Factors of Unsuccessful Exclusively Breastfeed During the COVID-19 Pandemic in Bantul Regency, Indonesia	10
MNC-003	Pyridoxine Supplementation (B6) to Reduce Symtoms of Depression Pre Menstrual Syndrome in Adolescent Girls	11
MNC-004	A Smartphone Application to Decrease Mother's Anxiety of Proper Neonatal Care in Indonesia	12
MNC-005	The Implementation of Integrated Antenatal Care (ANC) in Primary Health Centers in Semarang during the COVID-19 Pandemic	13
MNC-006	Exploring the Nurse's Experience in Providing End-of-Life Care among COVID-19 Patients in West Nusa Tenggara Province	14
MNC-007	The Influence of Parental Anxiety to Children's Social Skills during COVID_19 Outbreak in Bekasi 2022	15
MNC-008	Maternal Role and Psychosocial Development of Children Aged 36-59 Months	16
MNC-009	The Effect of Breast Massage with Breastfeeding and Baby Nutritional Status	17
MNC-010	The Analysis of Prevalence of Drug-Related Problems (DRPs) associated with Polypharmacy in Infected COVID-19 Patients with Essential Hypertension at Inpatient Care Of Hospital	18
MNC-011	The Relationship Between Nutritional Status, Immunization Status And The Growth And Development Of Toddlers Aged 6-60 Months In The Work Area Of Pajangan And Sedayu Primary Health Care	19
MNC-012	The Relationship Between Knowledge And The Application Of Health Protocols By Pharmacists During The Covid-19 Pandemic In Several Pharmacies In Bantul Regency	20
<b>THEME 3</b>	<b>Maternal and Child Health &amp; Nutrition</b>	

Abstract No	Title	Page
MCN-001	Correlation of Parity, Knowledge, and Family Income with the Nutritional Status of Pregnant Women at the Padang City	17
MCN-002	Improvement in Their Nutritional Status After 6-Months Program In Gua Musang And Jeli, Kelantan?	18
MCN-003	Determinant Of Stunting Events In Children 0-59 Months In Rural: Case Control Study	19
MCN-004	The Correlation Between Provision Time of Weaning Food and History of Exclusive Breastfeeding with Nutritional Status in Toddlers	20

# **THEME 1: Nutrition, Food Security, Herbal and Natural Medicine**



# NFH-001

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Impact of Household Income on Animal Source Food Consumption in Complementary Feeding: A Cross-Sectional Online Survey ICFQ-COVID-19 Study

Herwinda Kusuma Rahayu<sup>1\*</sup>, Fitri Tariani<sup>1</sup>, Yhona Paramanitya<sup>1</sup>, Herni Dwi Herawati<sup>1</sup>, Anafrin  
Yugistyowati<sup>2</sup>, Erni Samutri<sup>2</sup>

<sup>1</sup>Department of Nutrition, Faculty of Health Sciences, Universitas Alma Ata Yogyakarta, Jalan  
Brawijaya 99, Tamantirto Yogyakarta, Indonesia

<sup>2</sup>Department of Nursing, Faculty of Health Sciences, Universitas Alma Ata Yogyakarta, Jalan  
Brawijaya 99, Tamantirto Yogyakarta, Indonesia

\*Correspondence: [herwinda@almaata.ac.id](mailto:herwinda@almaata.ac.id)

#### ABSTRACT

**Background:** *Appropriate complementary feeding practice is needed to support physical growth and cognitive development. The practice was more challenging during the COVID-19 pandemic due to the impact of economic disruption such as labour reduction or unemployment and a decrease in household income level. Animal source foods (ASFs) are an important component of complementary feeding because of their role in increasing dietary diversity and providing essential sources of proteins.*

**Objectives:** *The study aimed to determine the association between the impact of COVID-19 pandemic on household economic aspects and the consumption of ASFs in Indonesia.*

**Methods:** *This cross-sectional study included 574 Indonesian mothers of 6 to 23-months-old children. Data were obtained through online self-administered questionnaires including consumption of ASFs in complementary feeding and the impact of COVID-19 pandemic on household economic aspects. To analyse the bivariate associations between the impact of COVID-19 pandemic on household economic aspects and household income level with ASFs consumption, a Chi-square test was used. Multivariate analyses were analysed using logistic regression tests.*

**Results:** *Majority (92.2%) of the children reported consuming any type of ASFs in the preceding 24 hours. The impact of the Covid-19 pandemic on household income, household food purchasing ability, father's employment, and mother's employment with ASF consumption was statistically significant. The types of ASF given to children in complementary foods are eggs (65.9%), dairy products (61.7%), processed meat (54.9%), fish or seafood (53%), meat (43.9%), poultry (34.7%) and organ meats (26.8%). Food group 4 (dairy products) and food group 5 (flesh food) were associated with household economic level, while consumption of food group 6 (egg) was not statistically significant. Multivariate analysis showed that child's age and minimum dietary diversity contributed to ASFs consumption.*

**Conclusions:** *All economic impact aspects of COVID-19 pandemic affect ASFs consumption on complementary feeding. However, to increase the consumption of ASFs on complementary feeding, other policies targeting improvements in food security should be considered.*

**KEYWORDS:** *animal source protein; complementary feeding, COVID-19 pandemic*

# NFH-002

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Analysis of Factors to Predict Eating Behavior among Adolescent Girls: A Community-Based Study in Indonesia

Dian Isti Angraini<sup>1\*</sup>, Fitria Saftarina<sup>1</sup>, Sofyan Mussabiq Wijaya<sup>1</sup>

<sup>1</sup>Department of Community Medicine and Public Health, Faculty of Medicine,  
Universitas Lampung, Jalan Prof. Soemantri Brojonegoro 1, Bandar Lampung, Indonesia

\*Correspondence: riditie@gmail.com

#### ABSTRACT

**Background:** *The eating behavior of adolescent girls is often not concerned with the nutritional content of food, consuming more fast food, causing changes in eating behavior leading to unhealthy eating behavior. The impact of having unhealthy eating behavior is the emergence of obesity and underweight. Adolescent eating behavior is influenced by predisposing, supporting and reinforcing factors.*

**Objectives:** *This study aims to analyze the factors to predict the eating behavior of community-based adolescent girls in Indonesia.*

**Methods:** *This study uses a quantitative method with a cross-sectional approach. The sample consisted of 210 adolescent girls aged 15-18 years in the city of Bandarlampung, Indonesia. Data were taken from July to October 2022. The sample was taken using the multistage random sampling method and analyzed using the chi square test and logistic regression.*

**Results:** *As many as 75 adolescent girls (35.7%) have unhealthy eating behavior, 164 people (78.1%) have poor nutritional knowledge, 6 people (2.9%) experience early menarche, 98 people (46.7%) were malnourished, 99 people (47.1%) had eating disorder, 74 people (35.2%) had a risky personality, 109 people (51.9%) were dissatisfied with their body image, 100 people (47.6%) had low allowance, 109 people (51.9%) influenced by social media, 98 people (46.7%) influenced by idols, 136 people (64.8%) influenced by family, 111 people (52.9%) influenced by teachers, and 76 people (36.2%) were influenced by their peers. Statistically, the factors related to the eating behavior of adolescent girls were knowledge ( $p=0.016$ ), nutritional status ( $p=0.000$ ), eating disorder ( $p=0.008$ ), personality ( $p=0.002$ ), body image ( $p=0.006$ ), allowance ( $p=0.11$ ), social media ( $p=0.000$ ), idol figures ( $p=0.03$ ), family ( $p=0.037$ ), teachers ( $p=0.048$ ) and peers ( $p=0.000$ ), while menarche was not related ( $p=0.241$ ). The most associated factors in predicting the eating behavior of adolescent girls are nutritional status, eating disorders, personality, body image, social media, idol figures, teachers and peers.*

**Conclusions:** *The prevalence of unhealthy eating behavior in adolescent girls is 35.7% and the most associated factors in predicting the eating behavior of adolescent girls are nutritional status, eating disorders, personality, body image, social media, idol figures, teachers and peers.*

**KEYWORDS:** *adolescent girls; associated factors; eating behavior*

# NFH-003

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Effect of Education on Knowledge and Attitude in Halal and Thoyyib Food Selection

Zakia Umami\*, Amalina Ratih Puspa, Andi Muhammad Asrul Irawan

Program Studi Gizi, Fakultas Sains dan Teknologi, Universitas Al Azhar Indonesia,  
Komplek Masjid Agung Al Azhar Jalan. Sisingamangaraja, Kebayoran Baru Jakarta Selatan 12110,  
Indonesia

\*Correspondence: [zakia.umami@gmail.com](mailto:zakia.umami@gmail.com)

#### ABSTRACT

**Background:** *The majority of Indonesia's population is Muslim. Total Muslim population in Indonesia is 237.53 million in 2021, this number is equivalent to 86.9% of the country's population of 273.32 million people. In Indonesia, the government requires all products to be halal certified, but still not all producers understand the importance of halal certification. They are constrained by costs and lengthy procedures in obtaining halal certification. So it is necessary to educate people in the selection of halal and thoyyib food*

**Objectives:** *The objective of this study was to analyze knowledge and attitudes in the selection of halal and thoyyib pangan food.*

**Methods:** *This was experimental research using an accidental sampling method. The samples were 89 respondents. Inclusion criteria are Muslim adolescent and adult who are willing to be respondents. The research steps were: 1) compiling educating materials composed of "The Advantage of Consuming Halal and Thayyib Food for Health" and "Halal: from A to Z and Critical Points of Modern Food", 2) developing educational-purpose Powerpoint media, 3) giving a pretest to identify respondent knowledge and attitude before education, 4) giving education and carrying out a discussion online via Zoom Meeting for three hours, and 5) giving a posttest to identify respondent knowledge and attitudes after education.*

**Results:** *Respondents who get information related to halal food are mostly obtained from social media by 88.76%. There was a significant difference in knowledge and attitudes regarding the selection of halal and thoyyib food after being given education ( $p < 0.005$ ). The average knowledge score increased after education, but the average attitude score decreased after education.*

**Conclusions:** *Education on halal and thayyib food, as attested to this research, could elevate knowledge yet not change attitudes. Before and after education knowledge was significantly different ( $p < 0.005$ ). Future researchers are expected to give online or offline education for a longer duration and use more attractive media.*

**KEYWORDS:** *education; food; halal; online; thoyyib*

# NFH-004

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Antimicrobial Activity of Telang Leaf Extract Against *Staphylococcus aureus* and *Candida albicans*

Semi<sup>1</sup>, Elly Rustanti<sup>2\*</sup>, Siti Mudrikatin<sup>3</sup><sup>1</sup>Program of Study Midwife Professional, College of Health Sciences Husada Jombang, Jalan Veteran Mancar Peterongan Jombang, Jawa Timur, Indonesia<sup>2</sup>Program of Study Ners, College of Health Sciences Husada Jombang, Jalan Veteran Mancar Peterongan Jombang, Jawa Timur, Indonesia<sup>3</sup>Program of Study S1 Midwifery, College of Health Sciences Husada Jombang, Jalan Veteran Mancar Peterongan Jombang, Jawa Timur, Indonesia\*Correspondence: [eilrose1211.er@gmail.com](mailto:eilrose1211.er@gmail.com)

#### ABSTRACT

**Background:** Infectious diseases that women often experience in obstetric cases are usually problems in the vaginal area, puerperal infections and some cases of infections of the reproductive organs. Efforts to reduce the negative impact of infection can be done by looking for compounds that have antimicrobial activity, one of which is Telang Leaf (*Clitoria ternatea*). Telang leaves contain flavonoids, flavanols, kaempferol, quercetin and mirisetin. From the results of various studies Telang Leaves have a pharmacological influence as an antimicrobial.

**Objectives:** The purpose of this study was to determine the activity of telang leaf extract against the growth of *Staphylococcus aureus* bacteria and *Candida albicans* fungi based on the diameter of the inhibitory zone.

**Methods:** The research method used is experimental laboratories. The test was carried out by extracting Telang leaves by the maceration method, then evaporated with a rotary evaporator so that a concentrated extract was obtained. Extracts Made concentrations of 10%, 20%, 30%, 40% and 50%. The antimicrobial activity test of the extract against *Staphylococcus aureus* bacteria and *candida albicans* fungus was carried out by disc diffusion method.

**Results:** The results showed that negative controls did not have an inhibitory zone diameter. The average diameter of the inhibition zone of telang leaf extract in *Staphylococcus aureus* is the highest with a concentration of 50%, which is 17.8 mm and a positive control of 42.6 mm. while in *candida albicans* fungus with a concentration of 50% with an inhibitory diameter of 16.5 mm and a positive control of 26.2 mm.

**Conclusions:** The conclusion is that telang leaves have antimicrobial activity at a concentration of 50% against *Staphylococcus aureus* and *candida albicans* So that telang leaf extract can be developed as a treatment in infectious diseases in case of obstetrics.

**KEYWORDS:** antimicrobials; *candida albicans*; *staphylococcus aureus*; telang leaves

# NFH-004

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Determination of Total Flavonoid Levels of Sembung Rambat (*Mikania micrantha*) Ethanolic Extract Capsules By Spectrophotometry-Uv/Vis

Dena Munarsih<sup>1</sup>, Daru Estiningsih<sup>1\*</sup>, Annisa Fatmawati<sup>1</sup>, Abdul Rohman<sup>2</sup>, Arina Fitria Hidayati<sup>3</sup>, Anafrin Yulistiyowati<sup>4</sup>

<sup>1</sup>Pharmacy Departement, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya 99, Tamantirto Yogyakarta, Indonesia

<sup>2</sup>Faculty of Pharmacy, Universitas Gadjah Mada, Sekip, Yogyakarta, Indonesia

<sup>3</sup>Departement of Agroindustrial Technology, Faculty of Agricultural Technology, Universitas Brawijaya, Indonesia

<sup>4</sup>Department of Nursing Science, Faculty of Health Science, , Universitas Alma Ata, Jalan Brawijaya 99, Tamantirto Yogyakarta, Indonesia

\*Correspondence: daru\_estiningsih@almaata.ac.id

**Background:** *Diarrhea is a disease characterized by an increase in the frequency of bowel movements more than 3 times. Some studies have proven that Sembung Rambat leaf possess antidiarrheal activity. The leaf contains flavonoid compounds that have a function as antidiarrheal agents and able to inhibit intestinal motility, reducing fluids or electrolytes.*

**Objectives:** *This study aimed to determine the total flavonoid content of capsules of ethanol extract of Sembung Rambat leaves using UV-Vis spectrophotometry in three formulations, namely FI, FII, FIII*

**Methods:** *Laboratory experimental method is utilized in this study. The composition of each capsule consists of extract (200 mg), aerosol PH 101 (10 mg), Avicel PH 101 (50 mg), lactose 165 mg and PVC with varying amounts in each formula, respectively for FI, FII and FIII is 25 mg, 50 mg, and 75 mg. The initial procedure is capsule formation and testing (moisture content, angle of repose, flow rate, weight uniformity, and disintegration time of the capsules). Furthermore, total flavonoid content in capsule extract is determined by the means of the UV-Vis spectrophotometric method.*

**Results:** *Organoleptic test showed irregular spherical granules with Sembung Rambat characteristic odor. The results of the moisture content test 1.93-4.40%, granule angle of repose 30.5-32.6°, granule flow properties 2.84-5.93 gram/second, disintegration time 2 minutes 20 seconds-4 minutes 47 seconds, and weight uniformity with the largest deviation is 0.4899. Moreover, variations in PVP concentration did not affect the total flavonoid content in all capsule formulations.*

**Conclusions:** *Based on the evaluation of granules and capsules, the best is formula I II. Meanwhile, the average total flavonoid content in Formula I is  $3.32 \pm 1.37$  mgEQ/100 grams of extract, Formula II is  $3.62 \pm 2.15$  mgEQ/100 grams of extract, Formula III is  $3.34 \pm 0.35$  mgEQ/100 grams of extract.*

**KEYWORDS:** *capsules; mikania micrantha; total flavonoids; UV-Vis spectrophotometri*



# NFH-005

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Malnutrition as an Associated Factor of the Sarcopenia Risk Using SARC-Calf and SARC-Calf 31 but not SARC-F in Oncology Patients Undergoing Chemotherapy

Listiyani Eka Tyastuti, Sri Purwaningsih, Wawang Suswan

RSUP. Dr. Kariadi Semarang, Jalan DR. Sutomo No.16, Randusari, Kec. Semarang Sel., Kota Semarang, Jawa Tengah, Indonesia

\*Correspondence: listiyanieka@yahoo.com

#### ABSTRACT

**Background:** Cancer-related malnutrition and sarcopenia is a common condition for cancer patients and has adverse effects on them. However, there is less study regarding the prevalence and its association in Indonesia.

**Objectives:** Therefore, this study aims to determine the prevalence of sarcopenia risk and its associated factors.

**Methods:** A cross-sectional study of adult patients with cancer receiving IV chemotherapy at Kariadi General Hospital, Indonesia, was conducted. Malnutrition, risk of sarcopenia, and activities were assessed by Patient-Generated Subjective Global Assessment (PG-SGA), SARC-F, SARC-Calf (33 and 34), SARC-Calf 31, and activities of PG-SGA.

**Results:** This study included 267 patients undergoing chemotherapy, 58.1 % was female and 85 % was malnourished. According to SARC-F, SARC-Calf 31 and SARC-Calf (33 and 34), there were 18.4 %, 33.3 % and 44.2 % patients identified with sarcopenia risk. In multivariate analysis, factors independently associated with sarcopenia risk by SARC-Calf 31 were malnutrition (OR =9.079, 95 % CI = 2.08–36.6,  $p=0.003$ ), age  $\geq 60$  years (OR = 2.075, 95 % CI = 1.054 - 4.08,  $p=0.035$ ) and female (OR = 2.12, 95 % CI = 1.2 – 3.75,  $p=0.01$ ). Malnutrition (OR =5.057, 95 % CI = 1.85-13.8,  $p=0.001$ ) and activity (OR =8.49, 95 % CI = 1.92–37.5,  $p=0.005$ ) were significantly associated with sarcopenia risk using SARC-Calf (33 and 34), whilst SARC-F had no association with any factors.

**Conclusions:** The high prevalence of malnutrition and sarcopenia risk in this population warrants immediate screening, diagnosis, and treatment. Further studies were needed to validate sarcopenia risk screening tools in Indonesia.

**KEYWORDS:** cancer; malnutrition; sarcopenia

# NFH-006

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Effect Of Alternative Moisture Balance Dressing Polyhexamethylene Biguanide (PHMB) Impregnated Gauze On Superficial Burn In White Rats (*Rattus Norvegicus*)

Deny Anjarwati <sup>1</sup>, Sofyan Indrayana <sup>2</sup>, Winda Rofiyati<sup>2</sup>, Ngatini<sup>3</sup>, Ari Susiana<sup>4</sup>

<sup>1</sup> Student of Nursing Department, Faculty of Health Science, Alma Ata University

<sup>2</sup> Department of Medical Surgical Nursing, Faculty of Health Science, Alma Ata University

<sup>3</sup> Nurse of Stroke Department, RSUP DR Sardjito Yogyakarta Indonesia

Jalan Kesehatan Sendowo No.1, Sendowo, Sinduadi, Kec. Mlati, Kabupaten Sleman, Yogyakarta

<sup>4</sup> Department of Clinical Pharmacy, Faculty of Health Science, Alma Ata University

Brawijaya Street No. 99, Tamantirto, Pity, Bantul, Yogyakarta

\*Correspondence: windarofiyati15@almaata.ac.id

#### ABSTRACT

**Background:** Burns damage the body's first line of defense against microbes and suppress the immune system, making burns a breeding ground for bacteria. These conditions lead to the need for alternative wound therapies that can reduce the risk of bacterial colonization in burn tissue, reduce the risk of infection and also have minimal side effects on wound healing.

**Objectives:** The purpose of this study was to determine the effect of giving an alternative moisture balance dressing (PHMB) impregnated gauze on healing superficial burns in experimental animals (*wistar rattus norvegicus* white rats).

The design of this study used an experimental laboratory with a post test only control group design, namely a simple experimental research design with two groups, namely the control group and the experimental group.

**Methods:** This research was conducted on 32 rats which were divided into 2 groups. The results showed that the administration of PHMB was more effective in healing burns in Wistar white rats.

**Results:** After carrying out the Independent *t* Test statistical test on the fifth and tenth day, the results obtained *P* value (Sig. 2 tailed) of 0.001 *P*-value < ( $\alpha = 0.05$ ) and *P*-value (Sig. 2 tailed) of 0.005, Value -*P* ( $\alpha = 0.05$ ). And the Mann Whitney statistical test on the fifth and tenth day showed a *P*-value (Sig.2 tailed) of 0.037, *P*-value ( $\alpha = 0.05$ ) and a *P*-value (Sig.2 tailed) of 0.000, *P*-value (= 0.05).

**Conclusions:** This study concluded that there was an effect of giving alternative dressings of moisture balance gauze impregnated with PHMB on healing superficial burns in Wistar white rats (*Rattus norvegicus*).

**KEYWORD:** PHMB; superficialis wound; *rattus norvegicus*

# NFH-007

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Antibiotic Prescribing Pattern In Patients With Diabetes Mellitus Complications In Panembahan Senopati Bantul Hospital

Daru Estiningsih<sup>1\*</sup>, Eva Nurjanah<sup>1</sup>, Nurul Kusumawardani<sup>1</sup>, Ninisita Sri Hadi<sup>2</sup>

<sup>1</sup>Pharmacy Study Program, Faculty of Health Sciences, Alma Ata University  
Brawijaya Street No. 99, Tamantirto, Pity, Bantul, Yogyakarta

<sup>2</sup>A practitioner in RSUP Dr.Sardjito Yogyakarta  
Jalan Kesehatan Sendowo No.1, Sendowo, Sinduadi, Kec. Mlati, Kabupaten Sleman, Yogyakarta

\*Correspondence : [daru\\_estiningsih@almaata.ac.id](mailto:daru_estiningsih@almaata.ac.id)

#### ABSTRACT

*Diabetes Mellitus, one of the non-communicable diseases (NCDs), is the leading cause of death in addition to cardiovascular disease, cancer, and chronic respiratory disease. The Basic Health Research (Riskesdas) recorded that Yogyakarta experienced a prevalence increase of 97% in 2013-2018, being the second-highest in Indonesia. Uncontrolled sugar levels cause deterioration of the immune system. This study aims to determine the pattern of prescribing antibiotics and the occurrence of comorbid complications, both infectious and non-infectious. This is a descriptive non-experimental research conducted with a cross-sectional design. The data were collected from patients' medical records retrospectively from July to December 2019. Furthermore, 65 medical records were taken using a simple random sampling method. A descriptive statistical analysis was performed and the results were presented in the form of a percentage.*

*The percentage of infectious and non-infectious comorbid in Diabetes Mellitus II in Panembahan Senopati Bantul Hospital was 18,5% and 81% respectively. Prescribing pattern mostly used was Ceftriaxone (22,2%). Additionally, the antibiotic class mostly prescribed was Cephalosporin (46,3%).*

**KEYWORD:** *antibiotics;diabetes mellitus; complications; infection; comorbidities*

# NFH-007

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Determinant of Smoking Cessation Behavior Among Low Dependence Smokers: A Discrete Choice Experiment

Eliza Dwinta<sup>1\*</sup>, Susi Ari Kristina<sup>2</sup>, Vo Quang Trung<sup>3</sup>

- <sup>1</sup>. Pharmacy Study Program, Faculty of Health Sciences, Alma Ata University, Jalan Brawijaya, Tamantirto, Kasihan, Bantul, Daerah Istimewa Yogyakarta, Indonesia 55183
- <sup>2</sup>. Department of Pharmaceutics, Faculty of Pharmacy, Universitas Gadjah Mada, Jalan Sekip Utara, Mlati, Sleman, Daerah Istimewa Yogyakarta, Indonesia 55281
- <sup>3</sup>. Department of Pharmacy Administration, Faculty of Pharmacy, University of Medicine and pharmacy, Ho Chi Minh City, Vietnam

\*Correspondence: elizadwinta@almaata.ac.id

#### ABSTRACT

Smoking is one of the major factors of morbidity and mortality in the world. The main causes of death of smokers are extensive chronic diseases. The proportion of smokers in Indonesia is 28.96%, especially in Daerah Istimewa Yogyakarta, the proportion of smokers is 24.54%. This study aims to determine what types of trade-offs in low dependence smokers choose to support smoking cessation and low dependence smokers' preferences based on socio-demographic characteristics. Smokers in the Yogyakarta city were surveyed to elicit their preferences for, and trade-offs between the attributes of a hypothetical smoking cessation behavior. Preferences for price of cigarette, health impact, warning label, availability of support, and service provided were assessed using the discrete choice experiment method. The degree of dependence on nicotine assessed by using Fagerstrom Test for Nicotine Dependence (FTND) and self-administered questionnaires containing five attributes and levels based on trade-off is delivered. The data analyzed using binary logistic regression test. The results of binary logistic regression analysis showed that most respondents were affected by marital status, recent education, occupation, the place where the respondent was smoked, and the history of quitting smoking in choosing the choice set. Most respondents chose choice set with the price of cigarettes around IDR 25,000-30,000; cancer which is a side effect of smoking that they afraid of, the effect of warning labels and support from neighborhood, and they prefer assistance from health services in the form of drugs to support them to stop smoking. The results of this study is that respondents tend to prefer factors that make them easier and faster in supporting smoking cessation.

**KEYWORD:** *DCE; FTND; low dependence smokers; smoking cessation; trade-off*

# NFH-008

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Subchronic Toxicity Testing of Porang Flour (*Amorphophallus oncophyllus*) Macerated with *Strobilanthes crisper* Extract on Liver Histopathology and Hepatic Activity Enzyme in Wistar Male Rats (*Rattus norvegicus*)

Daru Estiningsih<sup>1</sup>, Rizal Fauzi<sup>1</sup>, Eva Nurinda<sup>1</sup>, Ella Yunita<sup>1</sup>, Cindy Astariani<sup>1</sup>, M. Suhada<sup>1</sup>, Tiara<sup>1</sup>, Veriani Aprilia<sup>2\*</sup>

<sup>1</sup>Departement of Pharmacy, Faculty of Health Sciences, Alma Ata University

<sup>2</sup>Departement of Nutrition, Faculty of Health Sciences, Alma Ata University

Jalan Brawijaya, Tamantirto, Kasihan, Bantul, Daerah Istimewa Yogyakarta, Indonesia 55183

\*Correspondence: [veianiaprilia@almaata.ac.id](mailto:veianiaprilia@almaata.ac.id)

### ABSTRACT

**Background:** Porang (*Amorphophallus oncophyllus*) is a local tuber high in glucomannan bioactive compound. Its use is limited due to a fairly high calcium oxalate content which can pose a health risk. *Strobilanthes crisper* leaves can reduce calcium oxalate levels in porang, but food subchronic toxicity tests to prove its safety has not been carried out.

**Objectives:** This study was conducted to determine the safety and effect of subchronic toxicity of porang flour macerated with *S. crisper* extract on the liver using the Serum Glutamic Pyruvate Transaminase (SGPT) and Serum Glutamic Oxaloacetic Transaminase (SGOT) enzyme level parameters in Wistar rats

**Methods:** The subchronic toxicity test was carried out by employing a post-test only control group design for 28 days. The rats were divided into a control group and three treatment groups with the dosage of 1000, 2000, and 4000 mg/kg body weight (BW) for each porang flour macerated with *S. crisper* extract. The SGPT and SGOT enzyme levels in blood were measured on day 28 after treatment. The data measurement was performed using enzymatic UV test with spectrophotometric method (340 nm), while the statistical data was analyzed using the one-way ANOVA

**Results:** The results of subchronic toxicity testing for 28 days in male Wistar rats showed that there was an increase in SGPT and SGOT level along with the increase in dose, but it was still within the normal range. The administration of porang flour macerated with *S. crisper* extract also did not show toxic symptoms such as rat weight loss for 28 days. However, there were pathophysiological changes in the liver.

**Conclusions:** . The SGPT and SGOT enzyme levels increased along with the increase in the dose given, but still within the limits of the normal range.

**KEYWORD:** P *Amorphophallus oncophyllus* Porang flour; SGPT; SGOT ; Subchronic; Toxicity



# NFH-009

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Irritation Test and Dermal Acute Toxicity for Gel formulation of Cinnamon Oil and Red betel Leaf

Septi Yussinta Sari<sup>1</sup>, Emelda Emelda<sup>1\*</sup>, Nurul Kusumawardani<sup>1</sup>, Savara Purnama Lara<sup>1</sup>, Moch Saiful Bachri<sup>2</sup>, Wahyu Yuliana Solikah<sup>1</sup>, Adhi Gunawan<sup>1</sup>, Rizal Fauzi<sup>1</sup>

<sup>1</sup>Pharmacy Study Program, Faculty of Health Sciences, Alma Ata University, Brawijaya street, Tamantirto, Kasihan, Bantul 55183, Special Region of Yogyakarta, Indonesia

<sup>2</sup>Faculty of Pharmacy, Ahmad Dahlan University, Prof. Dr. Soepomo, Janturan, Warungbroto, Yogyakarta 55164, Special Region of Yogyakarta, Indonesia

\*Correspondence: Emelda@almaata.ac.id

#### ABSTRACT

Wound in the urogenital diaphragm and levator ani muscle is the initial occurrence of perineal wounds during labor. Cinnamon and red betel have anti-inflammatory, antibacterial, and antiseptic effects which are expected to provide a synergistic effect to increase pharmacological activity and accelerate the wound healing process, but until now there has been no research reporting the safety of this combination of plants. The research was designed as an experimental study using a completely randomized (CRD) with a unidirectional pattern. The study was conducted on female rats of the Wistar strain. Animal models used 34 female Wistar rats were divided and were divided randomly into 2 large groups, each group divided into 3 ( $n=9$ ) for irritation testing and 5 each group ( $n=25$ ) for acute dermal toxicity. The observations were made for 14 days regarding signs of irritation, erythema, and edema, as well as acute toxicity parameters related to body weight, and toxic symptoms, to the death of the test animals. Statistical analysis used Repeated measures analysis of variance with a significant result of  $p=0.012$ . There were differences between two or more groups when measuring the body weight of test animals. Signs of irritation were reported descriptively based on the irritation score of 0 and the primary skin irritation index (PDII) of 0.00. While the statistical analysis used for the acute dermal toxicity test was a two-way ANOVA value ( $p = 0.825$ ) the time and dose variables did not significantly affect changes in body weight. Administration of formulations up to a dose of 2000 mg/kg body weight did not cause toxic symptoms or death in the test animals. The gel preparation of the combination of cinnamon and red betel oil is safe to use and can be developed into a gel preparation because it does not cause irritation and symptoms of toxicity.

**KEYWORD:** gel; cinnamon oil; red betel leaf; irritation test; acute dermal toxicity

# NFH-010

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### *The Effect of n-Hexane Fraction of Ethanol Extract Moringa oleifera Leaf on Low-Density Lipoprotein (LDL) Levels of Sprague Dawley Male Rats*

Rizal Fauzi<sup>1</sup>, Nurul Kusumawardani<sup>1</sup>, Emelda<sup>1</sup>, Daru Estiningsih<sup>1</sup>,

<sup>1</sup>Pharmacy Study Program, Faculty of Health Sciences, Alma Ata University  
Brawijaya street, Tamantirto, Kasihan, Bantul, Yogyakarta, Indonesia 55183

\*Correspondence: [rizalfauzi@almaata.ac.id](mailto:rizalfauzi@almaata.ac.id)

#### ABSTRACT

**Background:** Hyperlipidemia is a medical condition characterized by an increase in one or more of the plasma lipids, including triglycerides, cholesterol, cholesterol esters, phospholipids and or plasma lipoproteins including very low-density lipoprotein and low-density lipoprotein along with reduced high-density lipoprotein levels. The research showed that the leaf extract of Moringa can lower total cholesterol levels of mice.

**Objectives:** This study aim to determine the effect of the n-hexane fraction of Moringa leaf ethanol extract (*Moringa oleifera* L.) on low-density lipoprotein (LDL) levels in Sprague dawley male rat strains fed a high-fat diet.

**Method:** This study used a pre-test and post-test control design on male rats of the Sprague dawley strain. Thirty-six male white rats of the Sprague dawley strain were given high fat diet, rats divided into six groups, group I being the normal group, group II negative control, Group III positive control was given Simvastatin 10 mg, Group IV, V, VI was given n -hexane fraction of ethanol extract of Moringa leaves (Dose 3,722 mg/kgBW; 7.444 mg/kgBW; 14,888 mg/kgBW). The results of measuring low-density lipoprotein (LDL) levels in animals measuring after 14 days of research as a post-test.

**Results:** The results of this study can conclude that the dose of the n-hexane fraction of Moringa leaves has a significant effect on decreasing LDL levels in male Sprague dawley rats with the best % reduction at a dose of 14.888 mg/kg BW (61.17%), with a linear regression equation  $y = -0.0408x + 1.079$ ; ( $R^2 = 0.986$ ).

**Conclusions:** This study show that based on the average posttest LDL levels of test animals were given by franksi n-hexane 96% ethanol extract of Moringa leaves, the best was group 3 (14,888 mg/kgBW). Based on statistical analysis, there was no significant difference between the positive control group and the treatment group 3.

**KEYWORD:** high-density lipoprotein; *Moringa oleifera*; Simvastatin

## **THEME 2: Maternal Health, Child Health, Nursing and COVID-19**

# MNC-001

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Analysis of Determinant Factors of Type 2 Diabetes Mellitus Incidence in Agricultural Populations

Fitria Saftarina\*, Dian Isti Angraini, Diana Mayasari

Department of Community Medicine, Faculty of Medicine, Universitas Lampung, Jalan Prof. Soemantri  
Brojonegoro No.1, Gedong Meneng Lampung, Indonesia

\*Correspondence: [fitria.saftarina@fk.unila.ac.id](mailto:fitria.saftarina@fk.unila.ac.id)

#### ABSTRACT

**Background:** *The prevalence of type 2 Diabetes Mellitus (DM) in urban areas was 2.6% compared to 1.4% in rural areas. However, what is quite interesting is that the proportion of disturbed fasting blood glucose (GDPT) and impaired glucose tolerance (TGT) in rural residents is higher than in urban areas, namely 3.7% and 5.4%, respectively. This shows that rural residents are more at risk of developing type 2 DM if no intervention is carried out.*

**Objectives:** *This study aims to analyze the determinants of the prevalence of type 2 DM in the agricultural population.*

**Methods:** *This type of research is a case-control study, with the sample being farmers who suffer from type 2 DM (cases) and farmers who do not suffer from DM (controls). The research was conducted in Gedong Tataan District, Pesawaran Regency with the number of each group as many as 41 people. Data were collected by measuring Body Mass Index, blood pressure, interviews with the IPAQ-SF questionnaire and the Brinkmann Index.*

**Results:** *The results showed that the number of types of pesticides, genetic factors and physical activity were the determining factors for the occurrence of type 2 DM. Respondents who used pesticides 2 types of pesticides had a 2.7 times risk of suffering from type 2 DM compared to those who used 1 type of pesticide. Respondents with a family history of DM have a 16.03 times possibility of suffering from DM compared to those without a family history of DM. Respondents with low physical activity had 4,154 chances of suffering from DM compared to respondents who had high physical activity.*

**Conclusions:** *Promotive and preventive efforts are needed, especially for people who use pesticides 2 types of pesticides, family history of suffering from type 2 DM and low physical activity.*

**KEYWORDS:** *agricultural population; risk factors; type 2 of DM*

# MNC-002

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Risk Factors of Unsuccessful Exclusively Breastfeed During the COVID-19 Pandemic in Bantul Regency, Indonesia

Nur Mukhlishoh Majidah<sup>1</sup>, Hastrin Hositanisita<sup>2</sup>, Siska Ariftyana<sup>1</sup>, Hamam Hadi<sup>1\*</sup>

<sup>1</sup>Alma Ata Graduate School of Public Health, Faculty of Health Sciences, Universitas Alma Ata Yogyakarta, Jalan Brawijaya 99, Tamantirto Yogyakarta, Indonesia

<sup>2</sup>Department of Nutrition, Faculty of Health Sciences, Universitas Alma Ata Yogyakarta, Jalan Brawijaya 99, Tamantirto Yogyakarta, Indonesia

\*Correspondence: [hhadi@almaata.ac.id](mailto:hhadi@almaata.ac.id)

#### ABSTRACT

**Background:** *The stunting prevalence in Indonesia has decreased from 27.7% in 2019 to 24.4% in 2021. However, it is estimated that there will be an increase in stunting and other nutritional problems resulting from the COVID-19 pandemic. One of the strategies to reduce stunting is to increase the prevalence of exclusive breastfeeding to 80%. It is anticipated that due to the COVID-19 pandemic, other risk factors will cause breastfeeding failure.*

**Objectives:** *The aim of this study was to analyse the risk factors of unsuccessful of exclusive breastfeeding during the COVID-19 pandemic.*

**Methods:** *We performed a case-control study among 263 children aged 6 – 12 months. The case group is children who are not breastfeed exclusively, and children who breastfeed exclusively as a control group. A chi square used to compare subjects characteristics. Logistic regression model used to explore the best model to show the significance factors correlated with unsuccessful of exclusive breastfeeding.*

**Results:** *The results showed that there were several variables related to the unsuccessful of exclusive breastfeeding. Mothers' occupation (OR=2.1, 95% CI: 1.1 – 3.9), mothers who were infected with COVID-19 (OR=3.3, 95% CI: 1.2 – 9.0), mothers who gave colostrum immediately after delivery (OR=0,082, 95% CI: 0,02 – 0,32), and children who were cared for by caregivers other than their biological mothers (OR=3.8, 95% CI: 1.9 – 7.2). Furthermore, logistic regression analysis indicates that mothers' feeling of anxiety was associated with the unsuccessful of exclusive breastfeeding with interactions with other variables.*

**Conclusions:** *There are risk factors associated with the failure of exclusive breastfeeding. Related variables are risk factors that arise due to the COVID-19 pandemic. Further research is needed to determine the possibility of other risk factors that influence failure.*

**KEYWORDS:** COVID-19; exclusive breastfeeding; risk factors; unsuccessfuls



## # MNC-003

ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION  
IMPROVEMENT (APHNI) 2022Pyridoxine Supplementation (B6) to Reduce Symptoms of Depression Pre-Menstrual  
Syndrome in Adolescent Girls

Siti Nurunniyah<sup>1\*</sup>, Eva Nurinda<sup>2</sup>, Dyah Pradnya Pramita<sup>1</sup>, Arif Sabta Aji<sup>3</sup>, Siti Raudah Munawaroh<sup>1</sup>,  
Putri Kurniawati<sup>1</sup>

<sup>1</sup>Department of Midwifery, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99,  
Yogyakarta, Indonesia

<sup>2</sup>Department of Pharmacy, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99,  
Yogyakarta, Indonesia

<sup>3</sup>Department of Nutrition, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99,  
Yogyakarta, Indonesia

\*Correspondence: [nurunniyah.siti@almaata.ac.id](mailto:nurunniyah.siti@almaata.ac.id)

## ABSTRACT

**Background:** *Menstruation is a sign of women who have reached puberty. During menstrual periods, many women experience physical discomfort. Physical discomfort with symptoms of menstrual disturbance discomfort in the abdominal area until instability problems. Psychological symptoms of PMS include emotional and mood-related symptoms such as depression, crying, hypersensitivity, easily confused, or rapid emotional changes that will cause sadness or anger. In Indonesia, according to data from BPS (Central Buereau of Statistic), showed that the number of female adolescents who experience PMS reaches a very large number, that decreasing their creativity and productivity. Therefore why this symptoms of PMS should be addressed. Pyridoxine serves to help produce the hormone serotonin which creates a sense of happiness.*

**Objectives:** *This study is intended to determine the effectiveness of Pyridoxine supplementation in reducing symptoms of Pre-Menstrual Syndrome (PMS) and what kind of symptoms most responsive to pyridoxine.*

**Methods:** *The design of this study was a quasi-experiment with a control group. The intervention and the control group each consisted of 20 people. All samples follow the study to completion. Questionnaires were used to determine the severity of STDs before and after intervension, in intervention groups and control groups. PMS severity score tested with static t test.*

**Results:** *There is an effect of pyridoxine supplementation to reduce PMS. It is known from the t significance of the t-test is 0.001. The type of PMS with the highest symptom reduction is PMS Type D (Depression).*

**Conclusions:** *Pyridoxine can be considered as a routine supplement for women with PMS type D.*

**KEYWORDS:** *depression; menstruation; pre-menstrual syndrome (PMS); pyridoxine; supplementation*

# MNC-004

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### A smartphone application to decrease mother's anxiety of proper neonatal care in Indonesia

Anafrin Yugistiyowati<sup>1\*</sup>, Erni Samutri<sup>1</sup>, Wahyuningsih<sup>1</sup>, Anisa Iriyanti<sup>1</sup>, Herwinda Kusuma Rahayu<sup>2</sup>, Siti Nurunnayah<sup>3</sup>, Daru Estiningsih<sup>4</sup>, Imram Radne Rimba Putri<sup>5</sup>

<sup>1</sup>Department of Nursing Science, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>2</sup>Department of Nutrition Science, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>3</sup>Department of Midwifery Science, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>4</sup>Department of Pharmacy Science, Faculty of Health Sciences Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>5</sup>Department of Hospital Administration, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

\*Correspondence: [anafrin.yugistiyowati@almaata.ac.id](mailto:anafrin.yugistiyowati@almaata.ac.id)

### ABSTRACT

**Background:** The first 0-28 days of life presents a crucial stage in infant health and wellbeing. Antenatal care education regarding proper neonatal care is needed in this setting. The existing phenomenon, many pregnant women have not been able to take care of their babies which cause anxiety for mother. And the development of the digital era demands educational media in the form of smartphones as educational media for pregnant women.

**Objectives:** To pilot an Android-based smartphone application (app) and assess its effectiveness in decreasing pregnant Indonesian women's anxiety about neonatal care.

**Methods:** A quasi-experimental study with 31 participants in each experimental and control group (N=62). The sampling technique is purposive sampling. Participants were pregnant women in the third trimester who obtained antenatal care (ANC) at the Community Health Center in Banguntapan 1 in Yogyakarta, Indonesia. Participants were given information about neonatal care, completed a structured questionnaire, and were given the 'My Baby Care' (MBC) app. In the control group, the intervention use a neonatal care booklet. Data were analyzed using paired t-tests to compare pre and post-intervention groups; and independent sample t-tests to compare participants' anxiety status between the two groups.

**Results:** The results demonstrated that using an Android-based smartphone app as an educational medium significantly decrease participants' anxiety ( $p=0,000$ ). We found that health education delivered via the smartphone app was effective in decreasing participants' anxiety about neonatal care ( $MD=-3.516$ ,  $p\text{-value}=0.000$ ).

**Conclusions:** The use of an Android-based smartphone app was found to be effective in decreasing mothers' anxiety about proper neonatal care. Digital strategies are innovative and should be considered for the implementation of health education in antenatal care programs in Indonesia and beyond. This smartphone application can be used to prepare for the process of pregnancy and childbirth better.

**KEYWORD:** health education; mhealth; smartphone application; mother's anxiety; neonatal care

# MNC-005

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Implementation of Integrated Antenatal Care (ANC) in Primary Health Centers in Semarang during the COVID-19 Pandemic

Suryani Yulianti<sup>1\*</sup>, Aulia Putri Amartiwi<sup>2</sup>, Aflikh Nailiya Azari<sup>2</sup>, Abdul Jalil<sup>2</sup>, Rahmi<sup>4</sup>, Turi Setyawati<sup>3</sup>.

<sup>1</sup>Department of Public Health, Faculty of Medicine, Universitas Islam Sultan Agung Jalan Kaligawe Raya KM 4, Genuk Semarang, Indonesia

<sup>2</sup>Faculty of Medicine, Universitas Islam Sultan Agung Jalan Kaligawe Raya Km 4, Genuk Semarang, Indonesia

<sup>3</sup>Puskesmas Halmahera

<sup>4</sup>Puskesmas Genuk

\*Correspondence: [suryaniyuliyanti@unissula.ac.id](mailto:suryaniyuliyanti@unissula.ac.id)

#### ABSTRACT

**Background:** During the COVID-19 pandemic, ANC visits at several health facilities decreased, and it is worsened by a limited health provider and service time potentially an obstacle to integrated ANC implementation. In fact, ANC is very essential for pregnant women in addition to preventing complications of pregnancy and childbirth.

**Objectives:** To compare the achievement of antenatal care at the puskesmas before and after the COVID-19 pandemic and to find several factors that may affect it.

**Methods:** This is cross-sectional research conducted from May to June 2021 at two primary health centers (PHC), Genuk and Halmahera Semarang. Data was purposively obtained from the medical record system. The data analysis used was Fischer's exact test and Chi-Square. Besides, we conducted interviews with the PHC staff regarding factors related to ANC visits.

**Results:** The implementation of the integrated antenatal program at the Genuk and Halmahera PHC in Semarang did not significantly differ before and during the Covid-19 pandemic. However, the prescription of Fe tablets was increased (55% to 70%) during the pandemic in the two PHCs. There were decreases in the number of new patients (22.5% to 17.5%), the number of Hb examinations (52.5% to 35%), the incidence of anemia, and consultations with doctors (10% to 2.5%). The lower ANC Visits during the Covid-19 pandemic were in accordance with the governance regulation in limiting the number of patients and the duration of health services.

**Conclusions:** special attention to the impact of lower adherence to integrated ANC is needed, especially on the growth and development of infants born during and in the months following the COVID-19 pandemic.

**KEYWORDS:** Achievement of ANC Target Management, COVID-19 Pandemic Period

# MNC-006

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Exploring the nurse's experience in providing end-of-life care among covid-19 patients in West Nusa Tenggara Province

Hendri Purwadi\*, Dewa Gede Sanjaya, Evi Gustia Kesuma

<sup>1</sup>Department of Nursing, STIKES Griya Husada Sumbawa  
Jalan Kebayan, Brang Biji, Kec. Sumbawa, Kabupaten Sumbawa, Nusa Tenggara Barat, Indonesia

\*Correspondence: [hendripurwadi.165@gmail.com](mailto:hendripurwadi.165@gmail.com)

#### ABSTRACT

**Background:** COVID-19 is one of the new infectious diseases that cause massive mortality worldwide including in Indonesia, especially in West Nusa Tenggara. Nurses are healthcare professionals who maintain patient's life as well as provide end-of-life care. The nurse's experience is one of the important factors in determining the quality of service among COVID-19 patients.

**Objectives:** To explore the experience of nurses in providing end-of-life care among COVID-19 patients.

**Methods:** This research used a qualitative design with a phenomenological approach. An in-depth interview with a semi-structural approach was conducted. A total of 15 respondents were involved in the study after data saturation had been reached. Data analysis using the Miles and Huberman technique which includes data reduction, data presentation, and conclusion

**Results:** There were several themes identified, including nurses' emotions (unpleasant experiences, dilemmas, guilt), challenging care (health protocols, facilities, and medical supplies), and advanced pandemic preparedness (facilities, personnel, policy).

**Conclusions:** The nurse's experience in providing end-of-life care among covid-19 patients is crucial. Therefore local and national authorities need to support the nurses, clinical environment and preparing advanced pandemic preparedness to improve nurses' roles in the future pandemics

**KEYWORDS:** care; end-of-life; experience; nurses

# MNC-006

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Influence of Parental Anxiety to Children's Social Skills During COVID-19 Outbreak in Bekasi 2022

Hilda Meriyandah Agil<sup>1,2\*</sup>, Dinda Nur Fajri HB<sup>1</sup>, Lisna Agustina<sup>1</sup>, Tokie Anme<sup>2</sup>

<sup>1</sup>Department of Nursing, STIKes Medistra Indonesia, Jalan Cut Meutia No. 88A Kota Bekasi, Jawa Barat, Indonesia

<sup>2</sup>International Community Care and Lifespan Development: Empowerment Sciences, Faculty of Medicine, University of Tsukuba, Tennodai, Tsukuba, Japan

\*Correspondence: [s2236041@u.tsukuba.ac.jp](mailto:s2236041@u.tsukuba.ac.jp)

#### ABSTRACT

**Background:** Since the first case of COVID-19 was found in Indonesia on March 2020, the government decided to lockdown all the countries. The children have been doing school from home (SFH), limited to socialize with others, and getting assisted by the parents to study at home. This condition might be an issue which affecting daily activities to parents and children, as well as their anxiety level and social condition of children.

**Objectives:** The main objective was to clarify how parents' anxiety level affect children social skill in Indonesia during COVID-19 Outbreak.

**Methods:** Design of this study was observational analytic. All participants (N=31) were recruited through the school by purposive sampling technique. The inclusion criteria were child who live with parent, and age 6 – 9 y.o (1st and 2nd grade of elementary). The parents were given an explanation about the study before filling out the consent for themselves and their children (age 7 to 9 y.o.). Then, parents were asked to fill out a questionnaire containing demographic data, and the Depression Anxiety Stress Scale (DASS-42). The children were asked to play with their peers in groups and then recorded to show their social interactions. The recording results were observed using the Social Skill Scale (SSS). Anxiety and SSS data were tested normality then analyzed using SPSS by independent sample t-test.

**Results:** Finally, there were 31 pairs of parents and children involved in this study. The 24 participants with normal-low level of parental anxiety ( $M = 2.50$ ;  $SD = 2.859$ ) compared to 7 participants with middle-severe level ( $M = 5.14$ ;  $SD = 3.024$ ) of parental anxiety is significantly related to the child's ability to cooperate with other children  $t(29) = -2.126$ ,  $p=0.04$ . However, parents' anxiety level was not found significant to children's social skill: self-control and assertion,  $t(29) = -0.559$ ,  $p=0.54$ ;  $t(29) = 0.62$ ,  $p=0.58$ , respectively.

**Conclusions:** Children's social skills in cooperating with others can be re-optimized in this offline learning method. As for parents, mental health consultation services can be provided in dealing with the new normal and decreasing their anxiety level.

**KEYWORDS:** COVID-19; children social skill; parental anxiety; school from home



# MNC-007

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Maternal role and Psychosocial Development of Children aged 36-59 months.

Erni Samutri<sup>1\*</sup>, Ika Rahmawati<sup>1</sup>, Wahyuningsih<sup>1</sup>, Anafrin Yugistyowati<sup>1</sup>, Yhona Paratmanitya<sup>2</sup>

<sup>1</sup> Department of Nursing, Faculty of Health Science, The University of Alma Ata

<sup>2</sup>Department of Nutrition, Faculty of Health Sciences, The University of Alma Ata  
Jalan Brawijaya No. 99, Yogyakarta 55183, Indonesia

\*Correspondence: [erni.samutri@almaata.ac.id](mailto:erni.samutri@almaata.ac.id)

### ABSTRACT

**Background :** *The achievement of child development is determined by various inputs, including child input, maternal input, family input, and environmental input. Parents, especially mothers, have a significant role in providing these inputs.*

**Objectives:** *To identify the relationship between maternal input including sociodemographic characteristics and the maternal role and the psychosocial development of children aged 36-59 months.*

**Methods:** *This study was a cross-sectional conducted in February 2020 in Puskesmas Sedayu 2, Yogyakarta. The eligible participant was mothers of children aged 36-59 months. The questionnaires included sociodemographic data, maternal role questionnaires, and psychosocial development questionnaires. The correlation between variables was analyzed using a Spearman rank test.*

**Results:** *This study included 89 mothers with children aged 36-59 months. About 91.01% of children were in normal psychosocial development. Correlation on sociodemographic characteristics showed that the mother's occupation was significantly related to the psychosocial development of children aged 36-59 months ( $p=0.005$ ). Maternal role also show significant correlation with children psychosocial development ( $p=0.007$ ). In addition, there were 2 domains of the maternal role that showed significant relationship with child psychosocial development, namely the role as a caregiver ( $p=0.002$ ) and counselor ( $p=0.003$ ).*

**Conclusions :** *The achievement of psychosocial development of children aged 36-59 months is related to the mother's work and the mother's role. Fulfilling each dimension of the parent's role will optimize all aspects of child development, including psychosocial aspects in preschool children to become children who have a positive self-concept, be creative, dare to show initiative.*

**KEYWORD:** *psychosocial development; child; 36-59 months; maternal role*

# MNC-008

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Analysis of Prevalence of Drug-Related Problems (DRPs) associated with Polypharmacy in Infected COVID-19 Patients with Essential Hypertension at Inpatient Care Of Hospital

Fatma Anggoro Wahyuningtyas<sup>1</sup>, Nurul Kusumawardani<sup>1\*</sup>, Adriyanto Rochmad B<sup>1</sup>, Daru Estiningsih<sup>1</sup>, Rizal Fauzi<sup>1</sup>

<sup>1</sup>Program Studi Sarjana (S1) Farmasi, Fakultas Ilmu-Ilmu Kesehatan, Universitas Alma Ata

<sup>2</sup>Instalasi Farmasi RSUD Kota Yogyakarta

\*Correspondence: [nurul.kusumawardani@almaata.ac.id](mailto:nurul.kusumawardani@almaata.ac.id)

#### ABSTRACT

**Background:** Hypertension is one of the most common comorbidities which is can increase the severity of COVID-19 and the risk of hospitalization. Hospitalized patients have a high potential to receive polypharmacy and can increase the risk of Drug Related Problems (DRPs).

**Objectives:** This study aims to determine the prevalence of DRPs in infected COVID-19 patients with essential hypertension who received polypharmacy drugs at the inpatient care of a Regional Public Hospital in the Special Region of Yogyakarta.

**Methods:** This observational descriptive study with a retrospective study approach based on medical record data in 2020-2021. The sampling of this study is 106 inpatients' medical records. The identification of DRPs was carried out using Pharmaceutical Care Network Europe version 9.0.

**Results:** From 106 patients, the result showed 100 patients receiving polypharmacy (94%), 65 patients (70%) of them experiencing DRPs, having cardiovascular comorbidities 35,3%, non-cardiovascular comorbidities 32,3%, and 32,3% do not have comorbidities.

**Conclusions:** Patients who have been infected with COVID-19 with essential hypertension comorbidity are at risk for receiving polypharmacy which can increase the risk of DRPs. Pharmacists have a very important role in detecting and providing solutions to reduce the prevalence of DRPs and achieve the expected clinical outcomes.

**KEYWORD :** COVID-19; DRPs; essential hypertension; polypharmacy; inpatient

# MNC-009

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Effect of Breast Massage With Breastfeeding and Baby Nutritional Status

Fatimah fatimah<sup>1</sup>, Muafiqoh Dwiarini<sup>1</sup>, Prasetya Lestari<sup>1</sup>, Lia Dian Ayuningrum<sup>1</sup>, Anafrin Yugistyowati<sup>1</sup>

<sup>1</sup>Department of Midwifery, Alma Ata University Yogyakarta Brawijaya Street No. 99, Tamantirto, Kasihan, Bantul, Yogyakarta

\*Correspondence: [Fatimah.fatimah@almaata.ac.id](mailto:Fatimah.fatimah@almaata.ac.id)

#### ABSTRACT

*The successful of breastfeeding process is not due to the mother's biological factors but rather due to difficulties for the mother in her first role so that this affects improper attachment techniques during breastfeeding and the feeling that milk production is not enough and not smoothly. The benefits of breastfeeding are very important to reduce nutritional imbalances and reduce stunting rates. One of the factor failure of breastfeeding is because breast milk does not come out after mother delivery their baby. Breast massage is another important factor in how the mothers can success breastfeed their baby.*

*This study analyzes the effect of breast massage in third trimester pregnant women with exclusive breastfeeding and infant nutritional status. A cross-sectional study was carried out with 80 pregnant women with gestational age 38 weeks using purposive sampling methods. The research instruments were the breast massage checklist, breastfeeding behavior, and body weight observation sheet. Results showed that breast massage during pregnancy have a direct effect of breastfeeding and baby nutritional status.*

**KEYWORD:** *breast massage; breastfeeding; nutritional status*

# MNC-010

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Relationship Between Nutritional Status, Immunization Status And The Growth And Development Of Toddlers Aged 6-60 Months In The Work Area Of Pajangan And Sedayu Primary Health Care

Dyah Pradnya Paramita<sup>1</sup>, Sundari Mulyaningsih<sup>2\*</sup>, Fatimah Fatimah<sup>3</sup>, Claudia Banowati Subarto<sup>2</sup>,  
Amanah Rahma Delia<sup>1</sup>

<sup>1</sup> Department of Midwifery, Alma Ata University Yogyakarta

<sup>2</sup> Department of Islamic Education, Alma Ata University Yogyakarta  
Brawijaya Street No. 99, Tamantirto, Pity, Bantul, Yogyakarta

\* Correspondence: [sundari.mulya@almaata.ac.id](mailto:sundari.mulya@almaata.ac.id)

#### ABSTRACT

**Background:** Indonesia is included in the category of developing countries. There are many cases of malnutrition in toddlers. The proportion of nutritional status in toddlers in Indonesia based on Baseline Health Research data in 2018 figured 53.9% for malnutrition with the highest province occurring in East Nusa Tenggara and the lowest in Riau Islands (1). Yogyakarta occupies the fifteenth province with malnutrition with a percentage (0.6%) and malnutrition (5.0%) in toddlers (2). One of the important factors that affect children's growth and development is nutritional factors. Nutritional status is one of the factors that determine human resources and quality of life. Malnutrition in children will have an impact on growth limitations, susceptibility to infections, and can eventually hinder child development so that children need to collect nutrients from daily food in small amounts at and good quality (3). Poor gizi status in toddlers can hinder physical, mental and thinking abilities which in turn will reduce the toddler's work ability in their activities (4).

**Objectives:** To determine the relationship between nutritional status, immunization status and the growth and development of toddlers.

**Methods:** analytical surveys with cross sectional designs. Data analysis using the chi square test with a sample number of 35 mothers who had children under five. The results of statistical analysis using the chi-square test can not be done because there is one cell whose expected count value is less than 5 so it uses the Fisher's Exact Test.

**Results:** The results showed that there was a relationship between nutritional status and growth ( $p = 0.0001$ ), development ( $p = 0.0001$ ) of toddlers. There was no association between immunization status ( $p = 0.658$ ) and growth and development of toddlers.

**Conclusions:** There is a relationship between nutritional status and the growth and development of toddlers, but there is no statistical relationship between immunization status and growth and development toddlers.

**KEYWORD:** toddlers; growth; development; nutritional status

#MNC-011

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### The Relationship Between Knowledge And The Application of Health Protocols By Pharmacists During The COVID-19 Pandemic In Several Pharmacies In Bantul Regency

Feni Fitriani<sup>1</sup>, Ari Susiana Wulandari<sup>1\*</sup>, Eva Nurinda<sup>1</sup> Fatma Siti Fatimah<sup>2</sup><sup>1</sup> Department of Clinical Pharmacy, Faculty of Health Science, Alma Ata University, Yogyakarta<sup>2</sup> Department of Hospital Administration, Faculty of Health Science, Alma Ata University Yogyakarta  
Brawijaya Street No. 99, Tamantirto, Kasihan, Bantul, Yogyakarta\*Correspondence: [arisusianaw@almaata.ac.id](mailto:arisusianaw@almaata.ac.id)

#### ABSTRACT

COVID-19 was declared a world pandemic by WHO in 2020. Likewise, the Head of the National Disaster Management Agency also determined COVID-19 as a Status of Certain Disaster Emergency Conditions of Disease Outbreaks due to Corona Virus in Indonesia through Decree No. 9 A of 2020, which was extended through Decree No. 13 A of 2020. The impacts of this pandemic require the health workers (nurses, doctors) or pharmacists working outside the hospitals to implement health protocols by using Personal Protective Equipment (PPE), such as protective clothing, face shields, and masks, as well as using hand sanitizers. This research aims to determine the relationship between knowledge and the application of health protocols by pharmacists who work at several pharmacies in Bantul Regency. This is quantitative research carried out by employing an analytical descriptive design using a cross-sectional approach. The population in this study were all pharmacists working at several pharmacies in Bantul Regency. The study was conducted in July 2022. Random sampling was utilized as the sampling method and the sample size was 42 people. The data analysis employed Spearman's Rank test to determine the relationship between 2 variables. The results revealed that the level of respondents' knowledge regarding the health protocol was in the fair category (57.1%), and the application of health protocols was in the good category (66.7%). According to Spearman's Rank test, the level of knowledge and the application of health protocols showed a correlation coefficient of 0.019, indicating that the direction of the correlation was positive and the correlation strength was very weak. Meanwhile, the significance was 0.904, indicating that there was no significant correlation ( $p\text{-value} > 0.05$ ). Based on the results, there was no significant correlation between knowledge and the application of health protocols by pharmacists working at several pharmacies in Bantul Regency.

**KEYWORD:** Implementation of Health Protocols; Pharmacists; COVID-19 Pandemic



## **THEME 3: Maternal and Child Health and Nutrition**

#MCN-001

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Correlation of Parity, Knowledge, and Family Income with the Nutritional Status of Pregnant Women at the Padang City

Helmizar<sup>1\*</sup>, Utami Ariyasra<sup>1</sup>, Sri Rahma Sari<sup>1</sup>, Ferdinal Ferry<sup>2</sup><sup>1</sup> Department of Nutrition, Faculty of Health Sciences, Universitas Andalas, Padang, Indonesia<sup>2</sup> Department of Obstetry Gynecologi, Faculty of Medicine, Universitas Andalas, Padang, Indonesia\*Correspondence: [helmizar@ph.unand.ac.id](mailto:helmizar@ph.unand.ac.id)

#### ABSTRACT

**Background:** *Optimal nutritional status in pregnant women supports the effoachieve SDG's (Sustainable Development Goals). 38.2% of pregnant women (aged 15-49 years) worldwide are malnourished and lead to anemia.*

**Objectives:** *This study aims to see the correlation of parity, knowledge, and family income which affects the nutritional status of pregnant women.*

**Methods:** *The type of this research is observational with a cross-sectional design and uses Spearman correlation statistical test. The number of samples in this study was 74 pregnant women at their 1<sup>st</sup> and 2<sup>nd</sup> trimesters in health centers of Kuranji, Andalas and Nanggalo, Padang City in 2022.*

**Results:** *The results showed that as many as 34 pregnant women (45.9%) have optimal nutritional status, 60 pregnant women (81.1%) with multipara, 54 pregnant women (73.0%) with moderate knowledge and as many as 40 pregnant women (54.1%) with high family income. The results of the correlation test are only family income factors that affect the nutritional status of pregnant women with (p value = 0.005).*

**Conclusions:** *The correlation between family income and the nutritional status of pregnant women showed significant results. Family income is one of the factors that determine the food availability which furhter determines the nutritional status of the family.*

**KEYWORDS:** *family income; knowledge; nutritional status; parity*

#MCN-002

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Improvement in Their Nutritional Status After 6-Months Program In Gua Musang And Jeli, Kelantan?

Noor Aida binti Abdullah<sup>1\*</sup>, A.J., Rohana<sup>2</sup>, Noor Aman bin A. Hamid<sup>3</sup>, Mohammad Affendy Bin Mhd Akhir<sup>4</sup>

<sup>1,2,3</sup>Department of Community Medicine, School of Medical Sciences, Health Campus, Universiti Sains Malaysia, 16150 Kubang Kerian, Kelantan, Malaysia

<sup>4</sup>Gua Musang Health District Office, Kelantan State Health Department Kelantan, Malaysia

\*Correspondence: [rohanajalil@usm.my](mailto:rohanajalil@usm.my)

#### ABSTRACT

**Background:** *Malnutrition is one of the main causes of death and disease among children globally. The Community Feeding Program (CFP), focused on the underprivileged community such as the Orang Asli due to the persistently high prevalence of malnutrition.*

**Objectives:** *This study aimed to investigate the proportion and factors associated with the successful outcome of the nutritional status among Orang Asli children participated in the CFP in Gua Musang and Jeli, Kelantan.*

**Methods:** *This was a cross-sectional study involving 175 recipients of Orang Asli children aged between six months to six years old who participated in the CFP in Gua Musang and Jeli, Kelantan. Data were collected from Buku Kanak-Kanak Kekurangan Zat Makanan (BKKKZM) using a proforma. Height and weight were measured. Z-scores for weight-for-age was determined and classified using WHO AnthroPlus software. This program involved a combination of three interventions; provision of Ready to Used Therapeutic Food (RUTF), Supplementary Feeding, and Community Health Empowerment Program.*

**Results:** *This study showed an improvement in the nutritional status indicators; weight, and weight-for-age Z (WAZ) score after six months in the program. The proportion of successful outcome of improvement in nutritional status increased to 64.0% for weight-for-age Z (WAZ) score. Factors associated with the successful outcome include location of feeding centres, percentage of attendance, and fathers' education.*

**Conclusions:** *The Community Feeding Program showed the improvement in the nutritional status of Orang Asli children; thus, this program should be sustained to improve the nutritional status of the children.*

**KEYWORDS:** *feeding program; malnutrition; nutritional intervention; orang asli*

#MCN-003

## ASIA-PASIFIC PARTNERSHIP ON HEALTH AND NUTRITION IMPROVEMENT (APHNI) 2022

### Determinant of Stunting Events in Children 0-59 Months in Rural: Case Control Study

Wahyuningsih<sup>1\*</sup>, Erni Samutri<sup>1</sup>, Anafrin Yugistiyowati<sup>1</sup>, Siti Nurunnayah<sup>2</sup>, Sofyan Indrayana<sup>1</sup>, Bkti Winarsih<sup>1</sup>, Herwinda Kusuma Rahayu<sup>3</sup>

<sup>1</sup>Department of Nursing Science, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>2</sup>Department of Public Health, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

<sup>3</sup>Department of Nutrition Science, Faculty of Health Sciences, Universitas Alma Ata, Jalan Brawijaya No.99, Yogyakarta, Indonesia

\*Correspondence: [wahyuningsih@almaata.ac.id](mailto:wahyuningsih@almaata.ac.id)

### ABSTRACT

**Background:** *Stunting is still a national issue in Indonesia. Yogyakarta is the area with the third highest prevalence. Although efforts to reduce stunting have been carried out, it turns out that the locus of stunting in rural areas is always increasing.*

**Objectives:** *The purpose of this study was to determine the relationship between socio-demographic characteristics and the incidence of stunting*

**Methods:** *This study is survey research to identify the incidence of stunting and its determinants. The determinant factors identified were socio-demographic characteristics including, maternal age, parity, birth spacing, mother's education, mother's occupation, father's education, father's occupation, mother's height, mother's arm circumference, child's birth weight, child's birth length, history of delivery, and history of exclusive breastfeeding. The research was conducted in Argodadi District. The subjects in this study were toddlers aged 0-59 months weighing at the posyandu. The sample size taken is 154 toddlers. The instruments used are microtoise, infantometer, questionnaire, and WHO anthropo. Ordinal logistic regression was conducted to determine the association between socio-demographic characteristics and stunting incidents.*

**Results:** *analysis of socio-demographic characteristics showed that the child was male (OR: 0.48; CI: 0.24-0.93), born to a mother with a height of 155-160 cm (OR: 0.31; CI: 0.12-0.80). , working mothers (OR:1.58; CI:0.79- 3.15), and fathers who worked as laborers/farmers (OR:0.66; CI:0.33-1.33) were associated with stunting.*

**Conclusions:** *the role of socio-demographic characteristics in the incidence of stunting indicates the need for specific and innovative stunting prevention intervention strategies for at-risk community groups, namely mothers with low height, working mothers, and fathers working as laborers/farmers.*

**KEYWORDS:** *height; occupation; socio-demographic; stunting*

@Copyright2022

**Alma Ata University Press**

Jalan Brawijaya 99, Bantul  
Daerah Istimewa Yogyakarta 55183  
Hotline: (+6274) 434 2288  
Website: [www.almaata.ac.id](http://www.almaata.ac.id)  
Email: [aaup@almaata.ac.id](mailto:aaup@almaata.ac.id)

