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CONFERENCE OF PUBLIC HEALTH**

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Wellbeing Regarding COVID - 19 ”**

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*The Work Place Initiative: Health, Safety and Wellbeing
Regarding COVID-19*

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**PROCEEDING
THE 3rd SRIWIJAYA INTERNATIONAL
CONFERENCE ON PUBLIC HEALTH**

*The Work Place Initiative: Health, Safety and Wellbeing
Regarding COVID-19*

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PREFACE

On behalf of the organizing committee, I am delighted to welcome you to the 3rd Sriwijaya International Conference on public Health (SICPH 2021) during 21th October 2021 at Palembang South Sumatera, Indonesia. The SICPH 2021 is international conference organized by Faculty of Public Health, Sriwijaya University (UNSRI). I would like to extend my warmest welcome to all the participant of The SICPH 2021 under the theme ***“The Impact of Climate Change on Infectious Disease Transmission”***.

The SICPH 2021 consists of keynote sessions from well known expert speakers in the field of public health, and academic paper sessions (oral presentations) who are coming from several region. This conference seeks to bring together academics, public health professionals, researchers, scientists, students and health stakeholders from a wide range of disciplines to present their latest research experience and further development in all areas of public health. We hoped that this conference will be usefull platform for researchers to present their finding in the areas on multidisciplinary realted to public health and health system issues.

This conference will provide opportunities to exchange ideas, knowledge, and development of the latest research among the participants. We will publish the paper as output from the SICPH 2021 in proceeding book with ISBN and selected paper will be published in Jurnal ilmu kesehatan masyarakat- SINTA 3 (a nationally-accredited journal). The SICPH 2021 is being attended by about 50 participants. I hope you enjoy the conference.

With regard to considerable conference agenda, we greatly appreciate any support and sponshorship derived from any governmental as well as private institutions for the success of the conference. Great appreciation is also handed to organizing committe of the conference for any voluntarily effort that bring to the succes of the conference.

The conference committee expresses its gratitude towards all the keynote speakers, authors, reviewers, and participanst for the great contribution to enssure the succes of this event. Finnally, I sincerely thank all the members of the organizing committee who have worked hard to prepare this conference.

Palembang, October 2021

Chair,

Anita Camelia, SKM., MKKK.

PREFACE



First of all, let us thank God, the Almighty, who has given His grace and guidance so that the 3rd Sriwijaya International Conference of Public Health (SICPH) with the theme of The Workplace Initiative: Health, Safety and Wellbeing Regarding Covid:19 can be held successfully. I welcome all of you to this seminar which has received great attention not only from university, but also other communities to submit papers to be presented in this seminar. I express my highest gratitude and appreciation the presenters.

The conference is divided in two session, the first session is speeches and the second session is round table discussion. In the first session, the invited keynote speakers were Prof. Dr. Tan Malaka, MOH, DrPH, SpOk, HIU (A Professor from Medical Faculty Universitas Sriwijaya), Prof. Dr. Retneswari Masilamani (University Tunku Abdul Rahman, Malaysia), Prof.Dr.Joselito L. Gapaz MD, M.PH(University of the Philippines) and Prof. Dr Tjandra Yoga Aditama, MHA,DTM&H, DTCE,SpP(C).FIRS (Professor from Griffith University, Australia)

Of course, this conference activity would not have succeeded without the support of all parties involved, as well as the presence of all participants in all regions in Indonesia and internationally. I especially thank to all the organizing committees for their hard work, perseverance, and patience in preparing and organizing this conference so that it can go well, smoothly and successfully.

Finally, through this conference let us extend the network and cooperation among all stakeholders of the public health sector, especially in Indonesia and in the world in general, to build a better public health world in Indonesia

Thank you for participating in this conference.

**Dean of Public Health Faculty,
Universitas Sriwijaya**

Dr. Misnianti, S.K.M, M.K.M

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FOOD SECURITY IN FAMILIES OF STUNTING AND NON-STUNTING TODDLERS DURING THE COVID-19 PANDEMIC IN PALEMBANG, INDONESIA

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ABSTRACT

The emergence of the COVID-19 pandemic has affected people's purchasing power and caused households to experience food insecurity. This has led to the disruption of the family food diversity and inadequate nutrition, which is a risk factor for stunting in toddlers. Therefore, this research aims to determine the description of food security in the families of stunting and non-stunting toddlers using a quantitative descriptive approach with a cross-sectional design. The sample included the population of all toddlers (74) aged 6-59 months in Seberang Ulu I sub-district, Palembang city that met the inclusion and exclusion criteria and were selected using a purposive sampling technique. Meanwhile, the inclusion criteria were single birth and last child, while the exclusion included moved domicile mothers that were not willing to become respondents. Food security data were collected through interviews using the Household Food Security Survey Module (HFSSM) questionnaire and nutritional status of toddlers based on body height or length according to age. The data obtained were presented in form of narratives, tables, and graphs through univariate analysis. The results showed that the proportion of stunting toddlers is mostly common in families with food insecurity. The proportion of food insecure families was higher than food secure families in low-income families. Food insecurity experienced by households can cause a lack of diversity of food consumed by children under five. Therefore, there is a need to increase mothers' knowledge on the fulfillment of balanced nutrition in toddlers through monthly visits to the Integrated Healthcare Center.

Keywords: food security, food diversity, stunting, mothers' knowledge, families

ABSTRAK

Pandemi COVID-19 masih berlangsung hingga saat ini dan berdampak pada penurunan daya beli masyarakat. Hal ini dapat menyebabkan rumah tangga mengalami kerawanan pangan dan gizi yang dapat menyebabkan keragaman pangan keluarga menjadi terganggu yang berakibat pada pemenuhan gizi balita yang kurang. Sehingga hal ini dapat menjadi faktor risiko kejadian *stunting* pada balita. Adapun tujuan penelitian ini adalah untuk mengetahui gambaran ketahanan pangan baik pada keluarga balita *stunting* dan non-*stunting*. Penelitian ini menggunakan pendekatan deskriptif kuantitatif dengan desain potong lintang dengan populasi yakni seluruh anak usia dibawah lima tahun (0-59 bulan) di Kota Palembang. Sampel dalam penelitian ini yaitu anak yang berusia 6-59 bulan di Kecamatan Seberang Ulu I yang memenuhi kriteria inklusi (kelahiran tunggal dan anak terakhir) dan kriteria eksklusif (ibu yang pindah domisili dan tidak bersedia menjadi responden) berjumlah 74 balita yang dipilih menggunakan teknik purposive sampling. Data dikumpulkan dengan teknik wawancara menggunakan kuesioner terstruktur *Household Food Security Survey Module* (HFSSM), dan status gizi balita berdasarkan tinggi badan atau panjang badan menurut usia. Data disajikan dalam bentuk narasi, tabel dan grafik melalui analisis univariat. Hasil penelitian menunjukkan bahwa proporsi balita *stunting* lebih banyak dimiliki oleh keluarga yang mengalami rawan pangan dibandingkan tahan pangan. Sementara itu, proporsi keluarga rawan pangan lebih banyak dibandingkan keluarga tahan pangan pada keluarga berpendapatan rendah. Kerawanan pangan yang dialami rumah tangga dapat berakibat pada ketidakragaman pangan yang dikonsumsi balita. Sehingga, diperlukan intervensi guna meningkatkan pengetahuan ibu akan pemenuhan gizi seimbang pada balita yang dapat dilakukan melalui kunjungan rutin ibu ke posyandu setiap bulan.

*The 3rd Sriwijaya International Conference on Public Health (SICPH)
Palembang, Oktober 21st, 2021*

Keywords: ketahanan pangan, keragaman pangan, *stunting*, pengetahuan ibu, keluarga

Introduction

The world is currently facing health problems due to the emergence and transmission of coronavirus (COVID-19) in Wuhan City, China, at the end of December 2019. The virus has spread globally and was declared a pandemic by the World Health Organization (WHO) on March 11, 2020. As of September 29, 2021, there were a total of 232,636,622 confirmed cases with 4,762,089 deaths and 407,664 new cases.¹ The pandemic affects public health, especially in children below 5 years (toddlers) which include the vulnerable groups experiencing nutritional problems. Stunting is one of the chronic nutritional problems found in toddlers characterized by a shorter height compared to their peers, with a total of 144 million (21.3%) cases globally.² WHO has declared Indonesia as one of the countries with the highest cases of stunting in the world due to high prevalence with approximately 30.8% of toddlers.^{3,4} Palembang is the capital city of South Sumatra Province, which is one of the priority loci of stunting in 2020. Based on the results of Status Monitoring Nutrition (PSG), there is an increase in the prevalence of nutritional problems, where the incidence of stunting increased from 9.0% in 2016 to 14.5% in 2017.^{5,6}

Meanwhile, the COVID-19 pandemic has also influenced all sectors including food and the economy, which has disrupted international trade causing a decline in domestic production and people's purchasing power.⁴ In the food sector, the ability to provide adequate quantity, quality, safe, diverse, nutritious, equitable, and affordable nutrition for individuals is food security. It does not conflict with the religion, beliefs, and culture of the community to create healthy, active, and productive lives sustainably.⁷ Food security is also included in one of the sensitive nutrition interventions in stunting prevention and reduction. Meanwhile, previous research has shown that the proportion of stunting toddlers was more in families with food insecurity.⁸⁻¹⁰ Therefore, this research aims to describe the status of food security in families with stunted and non-stunted toddlers in the Seberang Ulu I Sub-District, Palembang City during the COVID-19 pandemic.

Method

This research was conducted in Seberang Ulu I District, Palembang City using a quantitative descriptive approach with a cross-sectional design. The population used included all toddlers aged 6-59 months that met the inclusion and exclusion criteria. Moreover, the inclusion criteria were single birth

and last child and exclusion were domicile mothers that were not willing to be a respondent and were selected using a purposive sampling technique. The sample size was calculated using the formula for percentage estimation with absolute proportions. Based on the results of the 2018 Basic Health Research, the prevalence of stunting in Palembang City was 25.89% with 95% confidence level and 10% absolute precision, where 74 toddlers aged 6-59 months were obtained.¹¹

Data were collected through interviews using the Household Food Security Survey Module (HFSSM) questionnaire and nutritional status of toddlers based on body height or length according to age. The questionnaire consists of questions about family characteristics and food security status in the last 12 months. Meanwhile, nutritional status was categorized into 2, namely stunted (short) when the status was based on HAZ with a z-score $< -2SD$ and not stunted when a z-score $\geq -2SD$. Height measurement was carried out using a stadiometer for toddlers above 24 months and an infantometer for those below 24 months.

The data were analyzed using univariate analysis techniques to describe all research variables and were presented in form of narratives, tables, and graphs. This study received ethical approval from the Health Research Ethics Commission (*KEPK*) of the Public Health Faculty of Universitas Sriwijaya with Number 194/UN9.FKM/TU.KKE/2021.

Results

In this research, family characteristics consist of toddler sex, mother's education level, occupation, family income, food security, and nutritional status of toddlers (Table 1). Graph 1 describes the status of food security in families with stunted and non-stunted toddlers, while graph 2 describes family income with the status of family food security.

Table 1. Family Characteristics of Children aged 6-59 Months

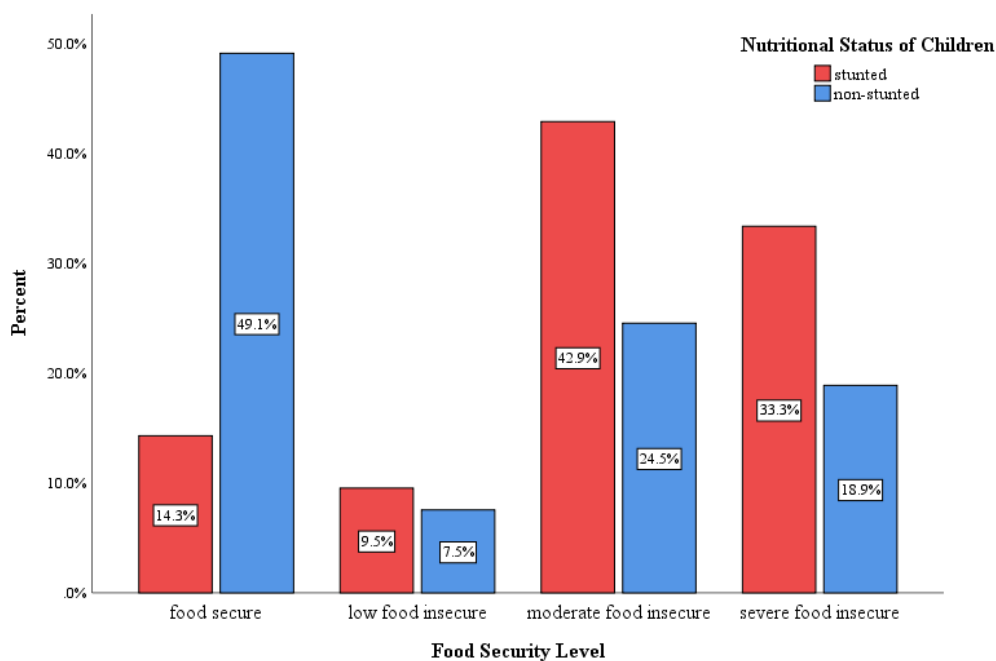
Family Characteristics	n	%
Child's Sex		
Male	38	51.4
Female	36	48.6
Mother's Education Level		
Less than Senior High School	29	39.2
Senior High School and above	45	60.8
Mother's Occupation		
Housewife	64	86.5
Working	10	13.5
Family Income		
Less than UMK (Rp. 3.165.519)	53	71.6
UMK and above	21	28.4
Food Security Level		
Food secure	29	39.2

Low food insecure	6	8.1
Moderate food insecure	22	29.7
Severe food insecure	17	23.0
Nutritional Status		
Stunted	21	28.4
Non-stunted	53	71.6

UMK (Upah Minimum Kota) = city minimum wages

The results in table 1 show that the proportion of male toddlers is 2.8% higher than females. Furthermore, mothers with high school education and above have a proportion of 60.8% and the non-working status were 86.5%. A total of 71.6% of families have an income below the City Minimum Wage, while food secure status and stunting were 39.2% and 28.4%, respectively.

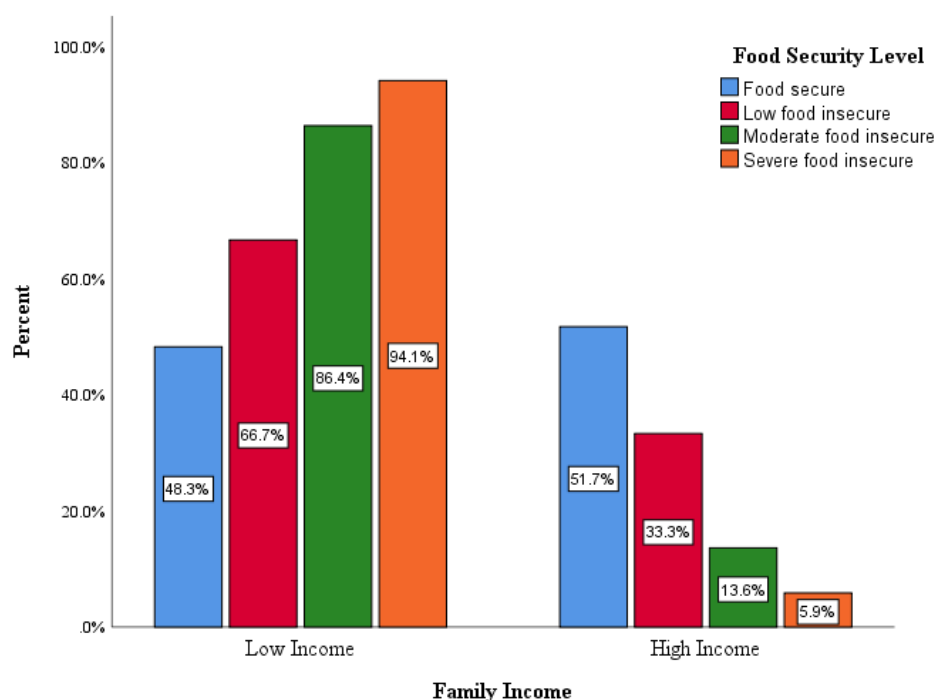
Graph 1 shows that the proportion of stunting toddlers is more common in families with food insecurity status, namely low (9.5%), moderate (42.9%), and severe (33.3%). Meanwhile, in families with food secure, the proportion of stunted toddlers is less than non-stunted toddlers.



Graph 1. Food Security Level in Families with Stunted and Non-Stunted Toddlers

Furthermore, graph 2 shows that in families with low income, the proportion of food secure families is the lowest compared to families with low, moderate and severe food insecurity. Meanwhile,

in families with higher income, the proportion of food secure families is the highest compared to families with low, moderate and severe food insecurity.



Graph 2. Food Security Level in Families Based on Income

Discussion

The COVID-19 pandemic has raised concerns about children's health, food supply, and increase in prices through its adverse impact on employment and income due to the need for social and physical restrictions. Based on a survey conducted by UNICEF, UNDP, Prospera, and The SMERU Research Institute at the end of 2020, almost one-third (30%) of respondents were concerned about not getting enough food and decline in incomes. It also showed that the disruptions to the food supply system have increased households with moderate and severe food insecurity to 11.7%.¹² This is in line with the results which show that families with food insecurity were higher than families with food security.

The status of family food security is closely related to income and expenditure. Meanwhile, there are two types of expenditure in the household, namely food and non-food. According to Aritonang et.al

(2020), food expenditure is an indicator that provides an overview of community welfare and family food security.^{13,14} The higher expenditure for consumption shows that the household has a low level of food security, causing deficiency in nutritional intake in children and affect their nutritional status.

Toddler is a group that experiences very rapid growth and development (golden age period). Therefore, adequate nutritional intake is required at this phase to support the process of growth, development, and increasing body immunity to avoid infectious diseases by consuming a variety of foods such as staple foods, side dishes, vegetables, and fruits. Moreover, food diversity is a proxy indicator to determine the quality of consumption and assess the adequacy of children's macronutrient and micronutrient intakes. The fulfillment of balanced nutrition through a variety of food is an indicator of achieving optimal nutritional status and effort to prevent stunting in the future.^{13,14}

One of the interventions to increase family food diversity is by increasing mothers' nutritional knowledge, which is obtained through the health services at the Integrated Service Post (*Posyandu*). The activities carried out at the *Posyandu* are mainly to regularly monitor the growth of toddlers once a month and also obtain health and nutrition-related information, which increases mothers' knowledge. However, mothers that are less exposed to information tend to give food that is only liked by toddlers. This causes limitations in the choice of food diversity such as the consumption of vegetables and fruit, which depends on mothers' decision.¹⁵

Conclusion

In conclusion, there were more stunting toddlers in families with food insecurity. Furthermore, in low-income families, the proportion of food insecurity is high compared to families with food security. Meanwhile, in families with higher income, the proportion of food insecure families is low compared to families with food security. Families with food insecurity will experience a lack of diversity of food consumed. Therefore, there is a need to increase mothers' knowledge on food selection consumed by toddlers and their families. This is achieved by educating mothers and families on balanced nutrition to avoid decisive consumption, but rather a variety of foods such as staple foods, side dishes, vegetables, and fruits.

Acknowledgement

The author expresses gratitude to the alumni and students of the Public Health Study Program, Faculty of Public Health, Universitas Sriwijaya for their assistance in completing this study on time.

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Conflict of Interest

All authors have no conflict of interest in this article.

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