The 2019 International Conference on Biotechnology and Life Sciences (IC-BIOLIS)

Published
2020-02-16

Conference Proceedings
Citation Index

WEB OF SCIENCE

Preface

Scientific and Editorial Boards

The Balance between Interleukin 5 and Interleukin 10 Level in Persistent Atopic Asthma after House Dust Mite Allergen Dermatophagoides pteronyssinus (Der p) Stimulation

Bioinformatics Analyses of Endo-1,4-beta-xylanase from Bacillus sp. SS3.4

Morphogenesis in vitro Flower Pedical of Lilium longiflorum with NAA and BAP

In Vitro Propagation of Lilium longiflorum Bulbs Using NAA and BAP Plant Growth Regulator Treatment

Specific Primer for Human Bcl-2 Protein Expression Analysis

Computational Design of Ancestral and Consensus Asian Dengue Envelope Protein for Vaccine Candidate

Investigating the Characteristics and Evolution of Apical Membrane Antigen 1 (AMA1) of Plasmodium sp. using Phylogenetic Approach in Searching for Drug Candidate

Salt Tolerance of Barak Cenana Rice (Oryza sativa L cv. Barak Cenana) EMS Derived M1 Putative Mutants

The Evolution Study Of 6-Cysteine Family Member Protein of Plasmodium sp. As a Potential Drug Candidate Against Malaria Infection

Metabolite Identification from Biodegradation of Congo Red by Pichia sp.

Isolation and Screening of Microbial Isolates from Kombucha Culture for Bacterial Cellulose Production in Sugarcane Molasses Medium

Primer Design for Isolation of Sucrose:Sucrose 1-Fructosyltransferase (1-SST) Gene from Gembili (Dioscorea esculenta)

The Correlation Between mRNA Hedgehog (Hh) Gene Expression with the Growth of Length of Tissue Regeneration Digit Tip Mice (Mus musculus) Post Amputation

Detection of cryIII gene in Local Isolate of Bacillus thuringiensis Using Polymerase Chain Reaction (PCR)

Detection of Opportunistic Fungus Pneumocystis jirovecii Major Surface Glycoprotein (MSG) gene in HIV-AIDS Patients with Pneumonia in Jakarta

Artificial Rice As an Alternative Functional Food to Support Food Diversification Program

Description of Eat Pattern and Relationship Between Nutrition Status With Basic Consumption levels in Children of School (Study Case Settlement Gundih, District Bubutan, Surabaya City)

Scientific and Editorial Boards

The 2019 International Conference on Biotechnology and Life Sciences (IC-BIOLIS)

Received: Month 2020
Accepted: Month 2020
Published: Month 2020

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the IC-BIOLIS Conference Committee.

Preface

The 2019 International Conference on Biotechnology and Life Sciences (IC-BIOLIS)

Received: Month 2020
Accepted: Month 2020
Published: Month 2020

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the IC-BIOLIS Conference Committee.

Indonesia is a developing country which undergoes progressive changes towards a rapidly industrializing society. The country is characterized by its abundant natural resources and a demography dominated by parts of society at a productive age. It is a country on the verge of becoming a developed one. As with other developing countries, the shift towards the 4.0 industrial revolution demands a careful and measured management of existing opportunities and challenges. This requires human resources that are empowered with pertinent skills.

Biotechnology, which moves around the interface between technology and biological sphere, holds a key role in assisting the country in navigating its course through the new industrial revolution. It utilizes biological resources for the welfare of human society and assists the progression of a nation towards prosperity. The advancement of biotechnology, supported by skilled human resources in the sector, is essential to ensure that Indonesia is well prepared in facing both the challenges and opportunities brought about by the 4.0 industrial revolution.

By adopting a theme on "The Role of Biotechnology in the Era of 4.0 Industrial Revolution", The 2019 International Conference on Biotechnology and Life Sciences aimed to create a platform for relevant experts and stakeholders in the field of Biology and Biotechnology to discuss and share experience related to the management and appropriate utilization of biological resources, as well as the recent advancement of Biotechnology.

Held in Kemala Ballroom of Universitas Esa Unggul, Jakarta, Indonesia, on 8 and 9 October 2019, The 2019 IC-BIOLIS was attended by 118 participants representing academic, business and governmental sectors experts from Indonesia, Malaysia, UK, USA and Japan. The 2019 IC-BIOLIS hosted 47 paper presentations in the conference main programme, with additional 5 student papers presented in the side event of Youth Forum. In addition, as part of The 2019 IC-BIOLIS side event, the conference welcomed Head of Biotechnology Study Programme from all Indonesian universities to take part on the IPSBI Summit event. The conference resulted in development of joint collaboration between Indonesian and overseas universities, as well as selection of 17 papers to be included in The 2019 IC-BIOLIS Proceedings. Papers included in the proceeding were reviewed by associated experts from Japan (Hokkaido University), UK (Robert Gordon University), and Indonesia (Universitas Esa Unggul, Atma Jaya Catholic University, Universitas Surabaya, Indonesian International Institute for Life Sciences, Indonesian Institute of Sciences/LIPI, Universitas Indonesia and Universitas Jember).

We are grateful for the contribution of all reviewers, scientific committees and editorial boards.

The conference was organized with the special supports of Universitas Esa Unggul and Indonesia Biotechnology Programme Association (IPSBI). The committee also wish to express our gratitude for our sponsors and contributors: PT DKSH, PT Andaru Persada Mandiri, PT Indolab Utama, PT Intralab Ekatama and Penerbit Erlangga, whose support made this conference possible.

Conference date: 8 and 9 October 2019

Location: Kemala Ballroom Universitas Esa Unggul, West Jakarta, Indonesia

Editors: Dr. Aroem Naroeni, Dr. Marie Stefanie Dwiyanti, Dr. Henny Saraswati, Dr. Radisti A. Praptiwi, Dr. Katherine, Dr. Erlia Narulita, Dr. Anggia Prasetyoputri, Dr. Ratih Asmana Ningrum, Dr. Marlina Afriyani.

Sponsors: PT DKSH, PT Andaru Persada Mandiri, PT Indolab Utama, PT Intralab Ekatama, and Penerbit Erlangga.

Organizer: Universitas Esa Unggul and Indonesia Biotechnology Programme Association (IPSBI).

Conference website: ic-biolis.org

Conference Paper

Description of Eat Pattern and Relationship Between Nutrition Status With Basic Consumption levels in Children of School (Study Case Settlement Gundih, District Bubutan, Surabaya City)

Miranti Widiayunita and Sulistyo Emantoko Dwi Putra

Faculty of Biotechnology, Department of Biotechnology, University of Surabaya

Abstract

Background, since the 1997 economic crisis the number of poor people in Indonesia has increased. One result of the crisis was the increasing number of street children. Street children are one of the conditions of children in difficult circumstances, their lives are very worrying, especially health and the future. The goal is to know the nutritional status of street children as a scientific basis for further intervention programs. Research Methods, discrete-analytic observational research. Using quota sampling as many as 30 street children in the Gundih settlement of Bubutan District, Surabaya City. Nutritional status was assessed by using anthropometric parameters of height according to age and sex and carried out a 2x24 hour recall to determine diet and consumption levels. Conclusion, (1) 70% of street children have poor nutritional status and only 6.7% have good nutritional status. (2) The most common diet patterns for street children are rice, side dishes, and vegetables. (3) The level of consumption achieved is still below 100% of the AKG and the majority are in the less and moderate category. (4) There is no significant relationship between nutritional status and consumption level ($p > 0.05$). Suggestions, intervention programs on street children need to be done to prevent further serious nutritional problems.

Keywords: homeless kid, economic crisis, nutritional status

Corresponding Author:
Miranti Widiayunita
mirantiwidiayunita2000@gmail.com

Received: 1 February 2020
Accepted: 8 February 2020
Published: 16 February 2020

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the IC-BIOLIS Conference Committee.

1. Introduction

Since the economic crisis in 1997, the number of poor people in Indonesia has increased. The economic crisis has caused the real value of the national development budget to decline by at least 60% so that tens of millions of families in Indonesia are forced to cross the poverty line. According to the World Bank, 3/5 or 60 percent of Indonesia's population is currently below the poverty line.

This situation causes health services and education to deteriorate, where children are the most vulnerable populations to be attacked. Reducing health services and

education has been accelerated at a time when Indonesia produces healthy children and has a good education to meet the challenges of globalization and the need to build a nation after the crisis. This crisis has removed most of the benefits of a lost generation, children lost education, good nutrition, and health protection. According to the 2003 human development report on the United Nations development program, the severity of child malnutrition in Indonesia is increasing.

One of the social symptoms as a direct result of the economic crisis is the increasing number of street children According to the 1991 East South Office research on Children on Jakarta's Street, from 3,420,828 children in Jakarta, 1.46% (9,868) were street children and based on data obtained from international conferences on street children in Yogyakarta in the year 1996, estimated the number of street children in Indonesia to reaching 3 million children, while enumeration of street children conducted in 1998 in 12 major cities the number of street children has reached 40 million children. It is estimated that the number of street children will continue to increase in line with the deteriorating prolonged Indonesian economy. The severity of life for street children that must be faced with the problem of education and health has not become a primary problem, and it can be ascertained that the lives of these abandoned children are very worrying especially their health and future, so the phenomenon of increasing the number of children is a separate problem in pediatric community.

From data from the East Java social service, in 2000 the number of street children in the city of Surabaya had the highest number. We can meet the activities of street children in the city of Surabaya in the city center, at the intersection of red lights or in the traditional market area. Gundih Subdistrict, Bubutan Subdistrict, Surabaya, is a former place of relocation for homeless people including street children and until now, from the survey results, street workers have formed their communities in one settlement. Seeing the description above, it is very important for empirical data to influence the description of eating patterns and the relationship between nutritional status and consumption level in street children who are in elementary school in the settlement of Gundih, Bubutan Regency, Surabaya, because it is part of Indonesia's assets.

2. Method

The research method is discrete-analytic observational research. Using quota sampling as many as 30 street children in the Gundih settlement of Bubutan District, Surabaya City. Nutritional status was assessed by using anthropometric parameters of height according to age and sex and carried out a 2x24 hour recall to determine dietary

patterns and consumption levels. From the research conducted, 30 respondents were obtained.

3. Result

Table 1: distribution of respondents according to age and sex.

Gender	P	L	Amount	%
Age				
7-9 years	2	7	9	30
10-12 years	9	9	18	60
13-15 years	2	1	2	10
Amount	**13**	**17**	**30**	**100**
%	**43**	**57**	**100**	

The distribution of respondents according to age and sex found that the age group of 10-12 years had the highest number of 17 (60%), whereas according to sex the number of male respondents was found to be higher, namely 16 (57%).

Table 2: Distribution of Respondents by Age and Type of Job.

Work Age (years)	Beggar	Buskers	Scavenger	Asongan	Services
7-9	2 (6,7)	3(10)	1(3,3)	3(10)	2(6,7)
10-12	3(10)	6(20)	-	2(6,7)	6(20)
13-15	-	1(3,3)	-	-	1(3,3)
Amount	5(16,7)	10(33,3)	1(3,3)	5(16,7)	9(30)

From table 2.1.2 buskers are the type of work that is mostly done from all age groups, namely 10 (33.3%). Besides that, asongan in the age group of 7-9 years and services in the age group 10-15 years have the same number as the type of work of buskers.

Distribution of respondents according to occupation and income obtained by the type of work with the highest number was singers, namely 10 (33.3%), while the scavengers were the least number, namely 1 (3.3%). According to income, most of them know, 21 (70%) respondents have income ≤ Rp. 5,000, the amount of income can come from the work of beggars, buskers, hawkers and service fees, while the largest amount of income (> Rp. 20,000) is only 2 (6.7% of respondents who came from the work of beggars and scavengers.

Distribution of respondents according to the level of knowledge about nutrition found no response to the level of knowledge of good nutrition, 10 (33.3%) respondents had

Table 3: Distribution of Respondents by Job and Income.

Work Income(Rp)	Beggar	Buskers	Scavenger	Asongan	Services	Amount	%
<=5000	3	6	-	4	8	21	70
6000-10000	1	2	-	1	-	4	13,3
11000-15000	-	1	-	-	1	2	6,7
16000-20000	-	1	-	-	-	1	3,3
>20000	1	-	1	-	-	2	6,7
Amount	**5**	**10**	**1**	**5**	**9**	**30**	**100**
%	**16,7**	**33,3**	**3,3**	**16,7**	**30**	**100**	

Description: services: polishers, cleaning public places

<=: less than the same as

>: greater than

Table 4: Distribution of Respondents According to the Level of Knowledge About Nutrition.

Knowledge Category	Amount	%
Well	-	-
Enough	10	33.3
Less	20	66.6
Amount	**30**	**100**

a level of knowledge of adequate nutrition and 20 (66.7%) respondents had a level of knowledge of malnutrition.

4. Discussion

From the research that has been done, there were 30 respondents from street children

4.1. Characteristics of Respondents

4.1.1. Age and Gender

Based on the results of research in Table 1, it is known that the age group of 10-12 years has the highest number of 18 (60%) compared to the two-age groups below and above, namely the age group 7-9 years and 13-15. The amount of age groups 10-12 years compared to the age group below can be concluded that the higher the age of a person the greater the chance to work because physically they are stronger and mentally feel more courageous to go on the streets, considering that they have to live

in the middle big danger. From interviews conducted with several respondents who lived together with the people (80%), it was found that people knew that they had not given permission to join work actively and independently if they were still considered too small, but they were only passively involved in just accompanying them. Passive involvement of a child can, of course, provide its own benefits because the community will often find it hard to see the child, while another advantage is that the child will learn as early as possible with the street environment so that when they have to work they are already trained.

While the number of street children aged 10-12 years who are greater than 13-15 years old, because sampling in this study was conducted at the age of the elementary school, so the small number of those aged 13-15 years is likely to be street children who should have graduated from elementary school.

Distribution of respondents by sex in Table 1, of the total number of street children in this study, the male respondents had the largest number, namely 17 (57%). This is probably because boys are physically stronger than girls, but in terms of licensing from parents, boys are more likely to get permission to roam the streets.

4.1.2. Age and type of work

From Table 2, it is known that buskers are the most types of work for all age groups, namely 10 (33.3%), from this it can be concluded that the types of busking work can be done by all age groups. According to the results of the interview, it was known that the selection of this type of work was due to the ease of doing the work. In the age group of 7-9 years, the type of asongan work is known to also have the same high number as busking i.e 3 (10%), this is probably because the asongan is relatively not too tiring compared to other jobs such as scavengers and services but also types of jobs that are not just asking - ask. Likewise, the age group 10-15 years apart from the work of busking services is the type of work that has the highest number, namely 1 (3.3%) of respondents, this is because they physically feel more able to do the service of the service and the results that are obtained are expected to be more. From this, it can be concluded that the age of a person will greatly determine the type of work he chooses because physically they feel more able to do more to get more income.

4.2. Socio-Economic

4.2.1. Job Types and Big Income

In table 3, it is known that the most types of work are singers, namely 10 (33.3%), this is because busking is considered easier to do and does not require capital at all. With busking they only need simple musical instruments made from bottle caps and perfunctory sounds. While the majority of jobs are service workers, namely 9 (30%) such as polishing, renting umbrellas and cleaning public places. According to the results of the interview, the selection of the type of service work is caused because they feel that there is a concrete work they do rather than just begging or singing.

The smallest number of jobs is scavenger work, which is one (3.3%) because this work is considered to be relatively tiring and requires a lot of energy for children of their age (elementary school age) even though later the income can be greater.

Food consumption can be influenced by the amount of income because the amount of income owned can determine purchasing power. 11 Based on income in table 4.1.3, it is known that most are 21 (70%) street children have income ≤ Rp.5,000, this income can be obtained from the type of work of beggars, buskers, hawkers, and services. While the biggest income (> Rp. 20,000) can be found from beggar jobs (3.3%) and one scavenger (3.3%). From here it can be seen that the type of busking work can produce varying amounts of income, as well as other types of work as shown in the table, so it can be concluded that the amount of income is not determined by the type of work.

In this study, it was known that most (36.7%) street children had low income (<= Rp.5000) and most (26.7%) street children who had higher income (> Rp.5,000) turned out to have the same level of calorie consumption is low. From this, it can be concluded that the greater income of the most active street children is not followed by an increase in the level of consumption of food. This situation can be caused because the level of consumption is not only caused by large income but also due to other factors such as the level of knowledge, the health of the individual and the role of the family.[11,16]

5. Conclusion

From the research that has been done it can be concluded:

1. Of the 30 street children who were assessed for their nutritional status, they were obtained mostly, namely 21 (70%) street children who had poor nutritional status.

2. The most frequent diet patterns of street children are rice, side dishes, and vegetables, which is 13 (43.4%), the second most is rice, side dishes are 10 (33.3%).

3. For consumption of staple food, rice is the type consumed by 30 (100%) respondents, then the second most is noodle 21 (70%). For the consumption of side dishes, tempeh is the most consumed side dish 26 (86.7%), followed by eggs and tofu. The highest vegetable consumption was spinach 23 (76.7%), the second-largest was kangkong and cabbage white or cabbage 12 (40%) respectively. While the highest fruit consumption is banana, papaya, guava and watermelon 4 (13.3%) respectively. Milk is known to only consume 6 (20%) respondents.

4. The average percentage of RDA for all types is still far from the recommended value which is below 100% (the highest percentage of energy RDA percentage is 79.3% 50.3%, carbohydrate 84.9% 32%, fat 66, 8% 47%, and protein 65.4% 33.5% all of which were obtained in the age group 13-14 years).

5. From the results of statistical analysis, it is known that the relationship between nutritional status and the level of energy, carbohydrate, fat and protein consumption did not have a significant relationship ($p > 0.05$). This can be caused by the level of consumption of street children still far from the AKG so that the substances consumed are still allocated for energy in activities while growth is still lacking or can also be caused by diseases suffered and genetic factors.

6. The amount of income and level of knowledge may play a role in determining the level of consumption and diet of individuals, but this is, of course, inseparable from other factors such as the role of parents, appetite, pleasure factors and socio-cultural conditions.

6. Suggestions

1. Efforts need to be made to increase knowledge about nutrition in street children such as counseling.

2. There needs to be a nutrition intervention program for street children such as supplementary food programs (PMT).

3. The need for efforts to improve the quality of human resources in the community of street children by providing education and skills to increase independence with the hope that street children can improve their economic and health degrees.

4. The discovery of nutritional problems in street children in the Gundih area of Bubutan district, Surabaya City, should be used as a scientific basis for intervention programs to prevent further nutritional problems.

5. The need for further research with a larger sample size and wider population.

6. The need for further research on the relationship between the factors underlying the nutritional status of street children, such as illness, the environment and others.

References

[1] Adriani, M. 2012. *The Role of Nutrition in the Life Cycle.* Jakarta; Kencana Prenadamedia Group.

[2] Alamsyah, D & Muliawati, R. 2013. *Basic Pillars of Public Health Sciences.* Yogyakarta: Nuha Medika.

[3] Almatsier, S. 2004. *Basic Principles of Nutrition.* Jakarta: Printing PT Gramedia Public Library.

[4] Figures for Nutrition Adequacy (RDA).2014. *Recommended Nutrition Adequacy Rate for the Indonesian nation.* Director General of Nutrition Development and Maternal and Child Health. RI Ministry of Health.

[5] Division of Food and Nutrition Health Promotion and Protection Program WHO 2003. *Guiding Principles for Companion Foods for Breastfeeding Children.* Washington D.C: WHO. Accessed at www.who.int/nutrition/.../guiding_principles, April 10, 2016.

[6] Ernawati, A. 2006. *Relation of Socio-Economic Factors, Environmental Sanitation Hygiene, Consumption and Infection Levels with Nutritional Status of Children 2-5 Years Old in Semarang Regency.* [Thesis]. Postgraduate Program at Diponegoro University, Semarang.

[7] Gibney. 2009. *Public Health Nutrition.* Jakarta: Medical Book EGC

[8] Gibson, R.S. 2005. *Principle of Nutrition Assessment.* New York: Oxford University Press.

[9] Global Nurition Report. 2015. *Measures and Accountability for Promoting Nutrition and Sustainable Development.* Washington DC. International Food Policy Research Institute. Accessed at www.ifpri.org/.../global-nutrition-report- 2015, April 7, 2016.

[10] Hastono, S, P. 2006. *Basic Data Analysis for Health Research.* FKM UI.

[11] RI Ministry of Health. 2015. *Situation and Nutrition Analysis.* Data and information Center. Jakarta.

[12] Kartasapoetra & Marsetyo. 2010. *Nutrition.* Jakarta: Rineka Cipta

[13] Khomsan, A. 2000. *Techniques for Measuring Nutritional Knowledge.* Bogor. Faculty of Agriculture GMSK Department IPB.

[14] Moehji, S. 2003. *Nutrition Science.* Jakarta; Papas sinar Sinanti-Bharatara.

[15] Notoadmodjo, S. 2003. *Health education and behavior.* Jakarta: PT.Rineka Cipta.

[16] Pandji, A. 2005. *Work Psychology.* Jakarta: Rineka Cipta

[17] Regulation of the Minister of Health of the Republic of Indonesia Number 23 of 2014 concerning Efforts to Improve Nutrition. Accessed at sinforeg.litbang.depkes.go.id, July 19, 2016.

[18] Soekirman. 2000. *Glzi Science and its Application for Family and Society.* Directorate of Higher Education. Ministry of Education.

[19] Supariasa, I.D.N, Bakri, B, Fajar, I. 2002. *Assessment of Nutritional Status.* Medical Book Publishers, EGC, Jakarta

[20] WHO. 2015. *World Health Statistics.* Geneva: WHO Press: 2015. Accessed at www.who.int/gho, December 13, 2015.

6450-Article_Text-26907-1-10-20200216_1.pdf

by Sulistyo Emantoko

Submission date: 22-Mar-2021 07:48PM (UTC-0700)
Submission ID: 1539935259
File name: 6450-Article_Text-26907-1-10-20200216_1.pdf (249.15K)
Word count: 3268
Character count: 16487

KnE Life Sciences

IC-BIOLIS
The 2019 International Conference on Biotechnology and Life Sciences
Volume 2020

Knowledge E
enriching | engaging | empowering

Conference Paper

Description of Eat Pattern and Relationship Between Nutrition Status With Basic Consumption levels in Children of School (Study Case Settlement Gundih, District Bubutan, Surabaya City)

Miranti Widiayunita and Sulistyo Emantoko Dwi Putra

Faculty of Biotechnology, Department of Biotechnology, University of Surabaya

Abstract

Background, since the 1997 economic crisis the number of poor people in Indonesia has increased. One result of the crisis was the increasing number of street children. Street children are one of the conditions of children in difficult circumstances, their lives are very worrying, especially health and the future. The goal is to know the nutritional status of street children as a scientific basis for further intervention programs. Research Methods, discrete-analytic observational research. Using quota sampling as many as 30 street children in the Gundih settlement of Bubutan District, Surabaya City. Nutritional status was assessed by using anthropometric parameters of height according to age and sex and carried out a 2x24 hour recall to determine diet and consumption levels. Conclusion, (1) 70% of street children have poor nutritional status and only 6.7% have good nutritional status. (2) The most common diet patterns for street children are rice, side dishes, and vegetables. (3) The level of consumption achieved is still below 100% of the AKG and the majority are in the less and moderate category. (4) There is no significant relationship between nutritional status and consumption level (p> 0.05). Suggestions, intervention programs on street children need to be done to prevent further serious nutritional problems.

Keywords: homeless kid, economic crisis, nutritional status

Corresponding Author:
Miranti Widiayunita
mirantiwidiayunita2000@gmail.com

Received: 1 February 2020
Accepted: 8 February 2020
Published: 16 February 2020

Publishing services provided by Knowledge E

Selection and Peer-review under the responsibility of the IC-BIOLIS Conference Committee.

1. Introduction

Since the economic crisis in 1997, the number of poor people in Indonesia has increased. The economic crisis has caused the real value of the national development budget to decline by at least 60% so that tens of millions of families in Indonesia are forced to cross the poverty line. According to the World Bank, 3/5 or 60 percent of Indonesia's population is currently below the poverty line.

This situation causes health services and education to deteriorate, where children are the most vulnerable populations to be attacked. Reducing health services and

education has been accelerated at a time when Indonesia produces healthy children and has a good education to meet the challenges of globalization and the need to build a nation after the crisis. This crisis has removed most of the benefits of a lost generation, children lost education, good nutrition, and health protection. According to the 2003 human development report on the United Nations development program, the severity of child malnutrition in Indonesia is increasing.

One of the social symptoms as a direct result of the economic crisis is the increasing number of street children According to the 1991 East South Office research on Children on Jakarta's Street, from 3,420,828 children in Jakarta, 1.46% (9,868) were street children and based on data obtained from international conferences on street children in Yogyakarta in the year 1996, estimated the number of street children in Indonesia to reaching 3 million children, while enumeration of street children conducted in 1998 in 12 major cities the number of street children has reached 40 million children. It is estimated that the number of street children will continue to increase in line with the deteriorating prolonged Indonesian economy. The severity of life for street children that must be faced with the problem of education and health has not become a primary problem, and it can be ascertained that the lives of these abandoned children are very worrying especially their health and future, so the phenomenon of increasing the number of children is a separate problem in pediatric community.

From data from the East Java social service, in 2000 the number of street children in the city of Surabaya had the highest number. We can meet the activities of street children in the city of Surabaya in the city center, at the intersection of red lights or in the traditional market area. Gundih Subdistrict, Bubutan Subdistrict, Surabaya, is a former place of relocation for homeless people including street children and until now, from the survey results, street workers have formed their communities in one settlement. Seeing the description above, it is very important for empirical data to influence the description of eating patterns and the relationship between nutritional status and consumption level in street children who are in elementary school in the settlement of Gundih, Bubutan Regency, Surabaya, because it is part of Indonesia's assets.

2. Method

The research method is discrete-analytic observational research. Using quota sampling as many as 30 street children in the Gundih settlement of Bubutan District, Surabaya City. Nutritional status was assessed by using anthropometric parameters of height according to age and sex and carried out a 2x24 hour recall to determine dietary

patterns and consumption levels. From the research conducted, 30 respondents were obtained.

3. Result

TABLE 1: distribution of respondents according to age and sex.

Gender	P	L	Amount	%
Age				
7-9 years	2	7	9	30
10-12 years	9	9	18	60
13-15 years	2	1	2	10
Amount	**13**	**17**	**30**	**100**
%	**43**	**57**	**100**	

The distribution of respondents according to age and sex found that the age group of 10-12 years had the highest number of 17 (60%), whereas according to sex the number of male respondents was found to be higher, namely 16 (57%).

TABLE 2: Distribution of Respondents by Age and Type of Job.

Work Age (years)	Beggar	Buskers	Scavenger	Asongan	Services
7-9	2 (6,7)	3(10)	1(3,3)	3(10)	2(6,7)
10-12	3(10)	6(20)	-	2(6,7)	6(20)
13-15	-	1(3,3)	-	-	1(3,3)
Amount	5(16,7)	10(33,3)	1(3,3)	5(16,7)	9(30)

From table 2.1.2 buskers are the type of work that is mostly done from all age groups, namely 10 (33.3%). Besides that, asongan in the age group of 7-9 years and services in the age group 10-15 years have the same number as the type of work of buskers.

Distribution of respondents according to occupation and income obtained by the type of work with the highest number was singers, namely 10 (33.3%), while the scavengers were the least number, namely 1 (3.3%). According to income, most of them know, 21 (70%) respondents have income ≤ Rp. 5,000, the amount of income can come from the work of beggars, buskers, hawkers and service fees, while the largest amount of income (> Rp. 20,000) is only 2 (6.7% of respondents who came from the work of beggars and scavengers.

Distribution of respondents according to the level of knowledge about nutrition found no response to the level of knowledge of good nutrition, 10 (33.3%) respondents had

TABLE 3: Distribution of Respondents by Job and Income.

Work Income(Rp)	Beggar	Buskers	Scavenger	Asongan	Services	Amount	%
<=5000	3	6	-	4	8	21	70
6000-10000	1	2	-	1	-	4	13,3
11000-15000	-	1	-	-	1	2	6,7
16000-20000	-	1	-	-	-	1	3,3
>20000	1	-	1	-	-	2	6,7
Amount	**5**	**10**	**1**	**5**	**9**	**30**	**100**
%	**16,7**	**33,3**	**3,3**	**16,7**	**30**	**100**	

Description: services: polishers, cleaning public places

<=: less than the same as

>: greater than

TABLE 4: Distribution of Respondents According to the Level of Knowledge About Nutrition.

Knowledge Category	Amount	%
Well	-	-
Enough	10	33.3
Less	20	66.6
Amount	**30**	**100**

a level of knowledge of adequate nutrition and 20 (66.7%) respondents had a level of knowledge of malnutrition.

4. Discussion

From the research that has been done, there were 30 respondents from street children

4.1. Characteristics of Respondents

4.1.1. Age and Gender

Based on the results of research in Table 1, it is known that the age group of 10-12 years has the highest number of 18 (60%) compared to the two-age groups below and above, namely the age group 7-9 years and 13-15. The amount of age groups 10-12 years compared to the age group below can be concluded that the higher the age of a person the greater the chance to work because physically they are stronger and mentally feel more courageous to go on the streets, considering that they have to live

in the middle big danger. From interviews conducted with several respondents who lived together with the people (80%), it was found that people knew that they had not given permission to join work actively and independently if they were still considered too small, but they were only passively involved in just accompanying them. Passive involvement of a child can, of course, provide its own benefits because the community will often find it hard to see the child, while another advantage is that the child will learn as early as possible with the street environment so that when they have to work they are already trained.

While the number of street children aged 10-12 years who are greater than 13-15 years old, because sampling in this study was conducted at the age of the elementary school, so the small number of those aged 13-15 years is likely to be street children who should have graduated from elementary school.

Distribution of respondents by sex in Table 1, of the total number of street children in this study, the male respondents had the largest number, namely 17 (57%). This is probably because boys are physically stronger than girls, but in terms of licensing from parents, boys are more likely to get permission to roam the streets.

4.1.2. Age and type of work

From Table 2, it is known that buskers are the most types of work for all age groups, namely 10 (33.3%), from this it can be concluded that the types of busking work can be done by all age groups. According to the results of the interview, it was known that the selection of this type of work was due to the ease of doing the work. In the age group of 7-9 years, the type of asongan work is known to also have the same high number as busking i.e 3 (10%), this is probably because the asongan is relatively not too tiring compared to other jobs such as scavengers and services but also types of jobs that are not just asking - ask. Likewise, the age group 10-15 years apart from the work of busking services is the type of work that has the highest number, namely 1 (3.3%) of respondents, this is because they physically feel more able to do the service of the service and the results that are obtained are expected to be more. From this, it can be concluded that the age of a person will greatly determine the type of work he chooses because physically they feel more able to do more to get more income.

4.2. Socio-Economic

4.2.1. Job Types and Big Income

In table 3, it is known that the most types of work are singers, namely 10 (33.3%), this is because busking is considered easier to do and does not require capital at all. With busking they only need simple musical instruments made from bottle caps and perfunctory sounds. While the majority of jobs are service workers, namely 9 (30%) such as polishing, renting umbrellas and cleaning public places. According to the results of the interview, the selection of the type of service work is caused because they feel that there is a concrete work they do rather than just begging or singing.

The smallest number of jobs is scavenger work, which is one (3.3%) because this work is considered to be relatively tiring and requires a lot of energy for children of their age (elementary school age) even though later the income can be greater.

Food consumption can be influenced by the amount of income because the amount of income owned can determine purchasing power. 11 Based on income in table 4.1.3, it is known that most are 21 (70%) street children have income ≤ Rp.5,000, this income can be obtained from the type of work of beggars, buskers, hawkers, and services. While the biggest income (> Rp. 20,000) can be found from beggar jobs (3.3%) and one scavenger (3.3%). From here it can be seen that the type of busking work can produce varying amounts of income, as well as other types of work as shown in the table, so it can be concluded that the amount of income is not determined by the type of work.

In this study, it was known that most (36.7%) street children had low income (<= Rp.5000) and most (26.7%) street children who had higher income (> Rp.5,000) turned out to have the same level of calorie consumption is low. From this, it can be concluded that the greater income of the most active street children is not followed by an increase in the level of consumption of food. This situation can be caused because the level of consumption is not only caused by large income but also due to other factors such as the level of knowledge, the health of the individual and the role of the family.[11,16]

5. Conclusion

From the research that has been done it can be concluded:

1. Of the 30 street children who were assessed for their nutritional status, they were obtained mostly, namely 21 (70%) street children who had poor nutritional status.

2. The most frequent diet patterns of street children are rice, side dishes, and vegetables, which is 13 (43.4%), the second most is rice, side dishes are 10 (33.3%).

3. For consumption of staple food, rice is the type consumed by 30 (100%) respondents, then the second most is noodle 21 (70%). For the consumption of side dishes, tempeh is the most consumed side dish 26 (86.7%), followed by eggs and tofu. The highest vegetable consumption was spinach 23 (76.7%), the second-largest was kangkong and cabbage white or cabbage 12 (40%) respectively. While the highest fruit consumption is banana, papaya, guava and watermelon 4 (13.3%) respectively. Milk is known to only consume 6 (20%) respondents.

4. The average percentage of RDA for all types is still far from the recommended value which is below 100% (the highest percentage of energy RDA percentage is 79.3% 50.3%, carbohydrate 84.9% 32%, fat 66, 8% 47%, and protein 65.4% 33.5% all of which were obtained in the age group 13-14 years).

5. From the results of statistical analysis, it is known that the relationship between nutritional status and the level of energy, carbohydrate, fat and protein consumption did not have a significant relationship ($p > 0.05$). This can be caused by the level of consumption of street children still far from the AKG so that the substances consumed are still allocated for energy in activities while growth is still lacking or can also be caused by diseases suffered and genetic factors.

6. The amount of income and level of knowledge may play a role in determining the level of consumption and diet of individuals, but this is, of course, inseparable from other factors such as the role of parents, appetite, pleasure factors and socio-cultural conditions.

6. Suggestions

1. Efforts need to be made to increase knowledge about nutrition in street children such as counseling.

2. There needs to be a nutrition intervention program for street children such as supplementary food programs (PMT).

3. The need for efforts to improve the quality of human resources in the community of street children by providing education and skills to increase independence with the hope that street children can improve their economic and health degrees.

4. The discovery of nutritional problems in street children in the Gundih area of Bubutan district, Surabaya City, should be used as a scientific basis for intervention programs to prevent further nutritional problems.

5. The need for further research with a larger sample size and wider population.

6. The need for further research on the relationship between the factors underlying the nutritional status of street children, such as illness, the environment and others.

References

[1] Adriani, M. 2012. *The Role of Nutrition in the Life Cycle.* Jakarta; Kencana Prenadamedia Group.

[2] Alamsyah, D & Muliawati, R. 2013. *Basic Pillars of Public Health Sciences.* Yogyakarta: Nuha Medika.

[3] Almatsier, S. 2004. *Basic Principles of Nutrition.* Jakarta: Printing PT Gramedia Public Library.

[4] Figures for Nutrition Adequacy (RDA).2014. *Recommended Nutrition Adequacy Rate for the Indonesian nation.* Director General of Nutrition Development and Maternal and Child Health. RI Ministry of Health.

[5] Division of Food and Nutrition Health Promotion and Protection Program WHO 2003. *Guiding Principles for Companion Foods for Breastfeeding Children.* Washington D.C: WHO. Accessed at www.who.int/nutrition/.../guiding_principles, April 10, 2016.

[6] Ernawati, A. 2006. *Relation of Socio-Economic Factors, Environmental Sanitation Hygiene, Consumption and Infection Levels with Nutritional Status of Children 2-5 Years Old in Semarang Regency.* [Thesis]. Postgraduate Program at Diponegoro University, Semarang.

[7] Gibney. 2009. *Public Health Nutrition.* Jakarta: Medical Book EGC

[8] Gibson, R.S. 2005. *Principle of Nutrition Assessment.* New York: Oxford University Press.

[9] Global Nurition Report. 2015. *Measures and Accountability for Promoting Nutrition and Sustainable Development.* Washington DC. International Food Policy Research Institute. Accessed at www.ifpri.org/.../global-nutrition-report- 2015, April 7, 2016.

[10] Hastono, S, P. 2006. *Basic Data Analysis for Health Research.* FKM UI.

[11] RI Ministry of Health. 2015. *Situation and Nutrition Analysis.* Data and information Center. Jakarta.

[12] Kartasapoetra & Marsetyo. 2010. *Nutrition.* Jakarta: Rineka Cipta

[13] Khomsan, A. 2000. *Techniques for Measuring Nutritional Knowledge.* Bogor. Faculty of Agriculture GMSK Department IPB.

[14] Moehji, S. 2003. *Nutrition Science.* Jakarta; Papas sinar Sinanti-Bharatara.

[15] Notoadmodjo, S. 2003. *Health education and behavior.* Jakarta: PT.Rineka Cipta.

[16] Pandji, A. 2005. *Work Psychology.* Jakarta: Rineka Cipta

[17] Regulation of the Minister of Health of the Republic of Indonesia Number 23 of 2014 concerning Efforts to Improve Nutrition. Accessed at sinforeg.litbang.depkes.go.id, July 19, 2016.

[18] Soekirman. 2000. *Glzi Science and its Application for Family and Society.* Directorate of Higher Education. Ministry of Education.

[19] Supariasa, I.D.N, Bakri, B, Fajar, I. 2002. *Assessment of Nutritional Status.* Medical Book Publishers, EGC, Jakarta

[20] WHO. 2015. *World Health Statistics.* Geneva: WHO Press: 2015. Accessed at www.who.int/gho, December 13, 2015.

6450-Article_Text-26907-1-10-20200216_1.pdf

ORIGINALITY REPORT

8%	4%	6%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	Submitted to Surabaya University Student Paper	4%
2	ejournal.unitomo.ac.id Internet Source	1%
3	Fitri Mutia. "The Role of Social Worker in Developing Information Needs among Street Children (A case study in Surabaya Indonesia)", International Journal of Engineering & Technology, 2018 Publication	1%
4	Kholoud A.H. Dababneh. "The socio-emotional behavioural problems of children with cerebral palsy according to their parents' perspectives", International Journal of Adolescence and Youth, 2013 Publication	1%
5	www.uneca.org Internet Source	<1%
6	id.123dok.com Internet Source	<1%

7	energypedia.info Internet Source	<1%
8	D Rokhmah, Khoiron, M S E S Wahyuningsih, S A Pratiwi, N Aprilya, R V Saputro. "Knowledge, attitude, and behaviour about healthy snacks selection with health literacy in primary school students at the rural area", IOP Conference Series: Earth and Environmental Science, 2020 Publication	<1%
9	F. Cozzi, J. S. Siegel. "Interaction between stacked aryl groups in 1,8-diarylnaphthalenes: Dominance of polar/π over charge-transfer effects", Pure and Applied Chemistry, 1995 Publication	<1%

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	Off		

6450-Article_Text-26907-1-10-20200216_1.pdf

GRADEMARK REPORT

FINAL GRADE

/0

GENERAL COMMENTS

Instructor

PAGE 1

PAGE 2

PAGE 3

PAGE 4

PAGE 5

PAGE 6

PAGE 7

PAGE 8

PAGE 9