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

Judul Artikel Ilmiah : The implementation of nutrition improvement programs for underweight children, wasting and stunting in the Department of Health, Central Buton

district, Southeast Sulawesi

Nama semua penulis : Nur Wulandari, Ani Margawati, M. Zen Rahfiludin

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

Penulis Anggota

Status Jurnal:

Nama Jurnal
 : Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)

Tahun terbit/Vol/No/halaman
 2021 / Vol 9/ No 2 / hal. 86-96

• Edisi (bulan, tahun) : Juni 2021

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• Terindex di : Sinta 2 SK No. 21/E/KPT/2018

Kategori Publikasi (beri tanda V yang sesuai)

 Jurnal Internasional 	[]	Jurnal internasional bereputasi & memiliki impact factor
	[]	Jurnal internasional bereputasi,
	[]	Jurnal Internasional
 Jurnal Nasional 	[]	Jurnal Nasional Terakreditasi
	[]	Jurnal Nasional berbahasa Inggris Terindeks CABI atau Copernicus,
		atau Berbahasa Inggris Terkreditasi Peringkat 3 atau 4
	[]	Jurnal Nasional berbahasa Indonesia Terakreditasi peringkat 3 atau 4
	[]	Jurnal Nasional

Hasil Penilaian Peer Review:

		Nilai R	Nilai Reviewer		
	Komponen Yang Dinilai	Reviewer I	Reviewer II	Rata- rata/Nilai Akhir yang diperoleh	
a.	Kelengkapan unsur isi jurnal (10%)	2	2,5	2,25	
b.	Ruang lingkup dan kedalaman pembahasan (30%)	7	7,5	7,25	
c.	Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	7	7	7	
d.	Kelengkapan unsur dan kualitas penerbit (30%)	7	7	7	
]	Total = (100%)	23	24	23,5	
ľ	Nilai pengusul = $40\% \times 23.5 = 9.4 / 2 = 4.7$				

Reviewer 1

Prof. Dr. Sri Sumarmi, S.KM., M.Si NIP 196806251992932002

Unit kerja: FKM Universitas Airlangga

Reviewer 2

Prof. Dr. Dyah Wutan S.R. Wardani, SKM., M.Kes.

NIP 197200281997022001

Unit kerjal: Bagian Ilmu Kedokteran Komunitas/Ilmu Kesehatan Masyarakat, Fakultas Kedokteran Universitas

Lampung

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

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	. ,	-)
 Jurnal Internasional 	[]	Jurnal internasional bereputasi & memiliki impact factor
	[]	Jurnal internasional bereputasi,
	[]	Jurnal Internasional
 Jurnal Nasional 	[√]	Jurnal Nasional Terakreditasi
	[]	Jurnal Nasional berbahasa Inggris Terindeks CABI atau Copernicus,
		atau Berbahasa Inggris Terkreditasi Peringkat 3 atau 4
	[]	Jurnal Nasional berbahasa Indonesia Terakreditasi peringkat 3 atau 4
	[]	Jurnal Nasional

Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel	Nilai yang didapat artikel
		Jurnal Nasional Terakreditasi	
a	Kelengkapan unsur isi artikel (10 %)	2,5	2
b	Ruang lingkup & kedalaman pembahasan (30 %)	7,5	7
c	Kecukupan dan kemutahiran data/informasi dan	7,5	7
	metodologi (30 %)		
d	Kelengkapan unsur dan kualitas jurnal (30%)	7,5	7
	Nilai Total	25	23
	Nilai yang didapat pengusul: $40\% \times 23 = 9.2 / 2$	= 4,6	

Catatan Penilaian artikel oleh Reviewer

Cat	atan Pennaian artikei oleh Kevlewer	
a	Kelengkapan unsur isi artikel	Unsur artikel ini sudah memenuhi panduan dari jurnal yang dituju
b	Ruang lingkup & kedalaman pembahasan	Pembahasan mendeskripsikan pelaksanaan program perbaikan gizi
		balita di Dinas Kesehatan Kabupaten Buton Tengah. Bahasa yang
		digunakan cukup mudah dimengerti. Referensi yang diacuh cukup
		banyak.
С	Kecukupan dan kemutahiran	Metode yang digunakan sudah sesuai dengan tujuan penelitian.
	data/informasi dan metodologi	Subyek penelitian ini adalah petugas gizi dan ibu balita gizi buruk di
		wilayah kerja Dinas Kesehatan Kabupaten Buton Tengah Tenggara.
		Pemilihan informan dilakukan dengan menggunakan teknik
		purposive sampling dengan cara observasi. Metode pengumpulan
		data diperoleh melalui wawancara mendalam, observasi, dan
		dokumentasi
d	Kelengkapan unsur dan kualitas jurnal	Artikel ini diterbitkan di jurnal terakreditasi sinta 2 dengan nomor SK
		21/E/KPT/2018

Surabaya, Reviewer 1 2021

Prof. Dr. Sri Sumarmi, S.KM., M.Si

NIP 196806251992932002

Unit kerja: Fakultas Kesehatan Masyarakat Universitas Airlangga

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

Judul Artikel Ilmiah The implementation of nutrition improvement programs for underweight

children, wasting and stunting in the Department of Health, Central Buton

district, Southeast Sulawesi

Nur Wulandari, Ani Margawati, M. Zen Rahfiludin Nama semua penulis

Status Pengusul (coret yg tidak perlu) Penulis Utama & Korespondensi/Penulis Korespondensi/

Penulis Anggota

Status Jurnal:

Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition) Nama Jurnal

Tahun terbit/Vol/No/halaman 2021 / Vol 9/ No 2 / hal. 86-96

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Alamat WEB Jurnal https://ejournal.undip.ac.id/index.php/jgi/article/view/27425

Sinta 2 SK No. 21/E/KPT/2018 Terindex di

Kategori Publikasi (beri tanda V yang sesuai)

•		,
 Jurnal Internasional 	[]	Jurnal internasional bereputasi & memiliki impact factor
	[]	Jurnal internasional bereputasi,
	[]	Jurnal Internasional
 Jurnal Nasional 	[]	Jurnal Nasional Terakreditasi
	[]	Jurnal Nasional berbahasa Inggris Terindeks CABI atau Copernicus,
		atau Berbahasa Inggris Terkreditasi Peringkat 3 atau 4
	[]	Jurnal Nasional berbahasa Indonesia Terakreditasi peringkat 3 atau 4
	[]	Jurnal Nasional

Hasil Penilaian Peer Review:

No	Komponen yang dinilai	Nilai Maksimal Artikel	Nilai yang didapat
		Jurnal Nasional Terakreditasi	artikel
a	Kelengkapan unsur isi artikel (10 %)	2,5	2,5
b	Ruang lingkup & kedalaman pembahasan (30 %)	7,5	7,5
С	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	7,5	7
d	Kelengkapan unsur dan kualitas jurnal (30%)	7,5	7
	Nilai Total	25	24
	Nilai yang didapat pengusul: $40\% \times 24 = 9.6 / 2$	= 4,8	

Catatan Penilaian artikel oleh Reviewer

Cata	itan Penilaian artikel oleh Keviewer						
a	Kelengkapan unsur isi artikel	Isi artikel sudah sesuai dengan panduan dari jurnal yang dituju					
		yaitu Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition).					
b	Ruang lingkup & kedalaman pembahasan	Topik yang diangkat mengenai Pelaksanaan program perbaikan					
		gizi balita kurus, kurus dan stunting di Dinas Kesehatan					
		Kabupaten Buton Tengah Sulawesi. Pembahasan cukup baik					
		dengan referensi yang cukup yaitu 23 referensi.					
С	Kecukupan dan kemutahiran	Penelitian ini merupakan penelitian deskriptif kualitatif. Subjek					
	data/informasi dan metodologi	penelitian sudah tepat. Pengambilan sampel dengan purposive					
		sampling. Teknik analisis data dalam penelitian ini dilakukan					
		dengan pengumpulan data, reduksi data, penyajian data, dan					
		penarikan kesimpulan.					
d	Kelengkapan unsur dan kualitas jurnal	Diterbitkan pada jurnal yang telah terakreditasi sita 2 san masih					
		berlaku pada saat artikel terbit.					

Lampung, Reviewer 2 2021

Prof. Dr. Dvah Wulan S.R. Wardani, SKM., M.Kes. NIP 197204281997022001

Unit kerjal: Bagian Ilmu Kedokteran Komunitas/Ilmu Kesehatan Masyarakat, Fakultas Kedokteran Universitas

Lampung



MENTERI RISET DAN TEKNOLOGI/ KEPALA BADAN RISET DAN INOVASI NASIONAL REPUBLIK INDONESIA

KEPUTUSAN MENTERI RISET DAN TEKNOLOGI/ KEPALA BADAN RISET DAN INOVASI NASIONAL REPUBLIK INDONESIA

NOMOR 148/M/KPT/2020 TENTANG PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2020

MENTERI RISET DAN TEKNOLOGI/ KEPALA BADAN RISET DAN INOVASI NASIONAL REPUBLIK INDONESIA,

Menimbang

- : a. bahwa dalam rangka pembinaan terhadap penyelenggaraan ilmu pengetahuan dan teknologi serta untuk meningkatkan relevansi, kuantitas, dan kualitas publikasi ilmiah ilmuwan Indonesia guna mendukung daya saing bangsa diperlukan peringkat akreditasi jurnal ilmiah;
 - b. bahwa Tim Akreditasi Jurnal Ilmiah Kementerian Riset dan Teknologi/Badan Riset dan Inovasi Nasional pada tanggal
 29 Juli 2020 telah menetapkan hasil akreditasi jurnal ilmiah periode II tahun 2020;
 - c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan huruf b, perlu menetapkan Keputusan Menteri Riset dan Teknologi/Kepala Badan Riset dan Inovasi Nasional tentang Peringkat Akreditasi Jurnal Ilmiah Periode II Tahun 2020;

Mengingat

: 1. Undang-Undang Nomor 12 Tahun 2012 tentang Pendidikan Tinggi (Lembaran Negara Republik Indonesia Tahun 2012 Nomor 158, tambahan Lembaran Negara Republik Indonesia Nomor 5336);

- Undang-Undang Nomor 11 Tahun 2019 Tentang Sistem Nasional Ilmu Pengetahuan dan Teknologi (Lembaran Negara Republik Indonesia Tahun 2019 Nomor 148, Tambahan Lembaran Negara Republik Indonesia Nomor 6374);
- Peraturan Pemerintah Nomor 4 Tahun 2014 tentang Penyelenggaraan Pendidikan dan Pengelolaan Perguruan Tinggi (Lembaran Negara Republik Indonesia Tahun 2014, Nomor 16, tambahan Lembaran Negara Republik Indonesia Nomor 5500);
- Peraturan Presiden Nomor 50 Tahun 2020 tentang Kementerian Riset dan Teknologi (Lembaran Negara Republik Indonesia Tahun 2020 Nomor 89);
- Keputusan Presiden Nomor 113/P/ Tahun 2019 tentang Pembentukan Kementerian Negara dan Pengangkatan Menteri Negara Kabinet Indonesia Maju Periode Tahun 2019-2024;

MEMUTUSKAN:

Menetapkan

: KEPUTUSAN MENTERI RISET DAN TEKNOLOGI/KEPALA BADAN RISET DAN INOVASI NASIONAL TENTANG PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2020.

KESATU

: Menetapkan Peringkat Akreditasi Jurnal Ilmiah Periode II Tahun 2020 sebagaimana tercantum dalam Lampiran yang merupakan bagian yang tidak terpisahkan dari Keputusan Menteri/Kepala Badan ini.

KEDUA

: Akreditasi Jurnal Ilmiah sebagaimana dimaksud dalam Diktum KESATU berlaku selama 5 (lima) tahun mulai dari nomor dan tahun sebagaimana tercantum dalam Lampiran yang merupakan bagian yang tidak terpisahkan dari Keputusan Menteri/Kepala Badan ini.

KETIGA : Setiap jurnal ilmiah wajib mencantumkan masa berlaku

akreditasi di dalam laman jurnal dengan menuliskan tanggal

penetapan dan tanggal akhir masa berlaku akreditasi.

KEEMPAT : Keputusan Menteri/Kepala Badan ini mulai berlaku pada

tanggal ditetapkan.

Ditetapkan di Jakarta pada tanggal 3 Agustus 2020

MENTERI RISET DAN TEKNOLOGI/
KEPALA BADAN RISET DAN INOVASI
NASIONAL REPUBLIK INDONESIA,

ttd.

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Salinan sesuai dengan aslinya KEMENTERIAN RISET DAN TEKNOLOGI/ BADAN RISET DAN INOVASI NASIONAL Sekretariat Kementerian/Sekretariat Utama Kepala Biro Hukum dan Organisasi,

ttd.

Ardhien Nissa Widhawati Siswojo

SALINAN
LAMPIRAN
KEPUTUSAN MENTERI RISET DAN TEKNOLOGI/
KEPALA BADAN RISET DAN INOVASI NASIONAL
REPUBLIK INDONESIA
NOMOR 148/M/KPT/2020
TENTANG
PERINGKAT AKREDITASI JURNAL ILMIAH
PERIODE II TAHUN 2020

PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2020

Peringkat	No	Nama Jurnal	E-ISSN	Penerbit	Keterangan
1	1	Forest and Society	25494333	Fakultas Kehutanan Universitas Hasanuddin	Reakreditasi Tetap di Peringkat 1 mulai Volume 4 Nomor 1 Tahun 2020
	2	Medical Journal of Indonesia	22528083	Fakultas Kedokteran Universitas Indonesia	Reakreditasi Tetap di Peringkat 1 mulai Volume 29 Nomor 1 Tahun 2020
	3	Nurse Media Journal of Nursing	24068799	Department of Nursing, Faculty of Medicine, Diponegoro University	Reakreditasi Tetap di Peringkat 1 mulai Volume 10 Nomor 1 Tahun 2020
	4	Squalen Bulletin of Marine and Fisheries Postharvest and Biotechnology	24069272	Balai Besar Riset Pengolahan Produk dan Bioteknologi Kelautan dan Perikanan (BBRPPBKP) Kementerian Kelautan Dan Perikanan	Reakreditasi Tetap di Peringkat 1 mulai Volume 14 Nomor 3 Tahun 2019
	5	Universa Medicina	24072230	Fakultas Kedokteran Universitas Trisakti	Reakreditasi Naik Peringkat dari Peringkat 2 ke Peringkat 1 mulai Volume 38 Nomor 3 Tahun 2019
2	1	Acta VETERINARIA Indonesiana	23374373	Fakultas Kedokteran Hewan Institut Pertanian Bogor bekerja sama dengan Perhimpunan Dokter Hewan Indonesia	Reakreditasi Tetap di Peringkat 2 mulai Volume 8 Nomor 1 Tahun 2020

Peringkat	No	Nama Jurnal	E-ISSN	Penerbit	Keterangan
	45	Jurnal Aisyah: Jurnal Ilmu Kesehatan	25029495	STIKES Aisyah Pringsewu Lampung	Reakreditasi Naik Peringkat dari Peringkat 4 ke Peringkat 2 mulai Volume 5 Nomor 1 Tahun 2020
	46	Jurnal Borneo Administrator: Media Pengembangan Paradigma dan Inovasi Sistem Administrasi Negara	24076767	Pusat Pelatihan dan Pengembangan dan Kajian Desentralisasi dan Otonomi Daerah, Lembaga Administrasi Negara	Reakreditasi Tetap di Peringkat 2 mulai Volume 16 Nomor 1 Tahun 2020
	47	Jurnal Dakwah Risalah	26543877	Fakultas Dakwah dan Komunikasi. Universitas Islam Negeri Sultan Syarif Kasim Riau	Reakreditasi Naik Peringkat dari Peringkat 4 ke Peringkat 2 mulai Volume 30 Nomor 2 Tahun 2019
	48	Jurnal Didaktik Matematika	25488546	Program Studi Magister Pendidikan Matematika, FKIP Universitas Syiah Kuala	Reakreditasi Naik Peringkat dari Peringkat 3 ke Peringkat 2 mulai Volume 7 Nomor 1 Tahun 2020
	49	Jurnal Ekonomi dan Kebijakan Publik	25284673	Sekretariat Jenderal Dewan Perwakilan Rakyat Republik Indonesia	Akreditasi Peringkat 2 mulai Volume 9 Nomor 1 Tahun 2018
	50	Jurnal Ekonomi dan Pembangunan Indonesia	24069280	Departemen Ilmu Ekonomi Fakultas Ekonomi dan Bisnis Universitas Indonesia	Reakreditasi Tetap di Peringkat 2 mulai Volume 20 Nomor 2 Tahun 2020
	51	Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition)	23383119	Departemen Ilmu Gizi Universitas Diponegoro	Reakreditasi Tetap di Peringkat 2 mulai Volume 8 Nomor 2 Tahun 2020
	52	Jurnal Gramatika: Jurnal Penelitian Pendidikan Bahasa dan Sastra Indonesia	24606316	Pendidikan Bahasa dan Sastra Indonesia, STKIP PGRI Sumatera Barat	Reakreditasi Naik Peringkat dari Peringkat 3 ke Peringkat 2 mulai Volume 6 Nomor 1 Tahun 2020

Peringkat	No	Nama Jurnal	E-ISSN	Penerbit	Keterangan
	30	Sosioedukasi Jurnal Ilmiah Ilmu Pendidikan dan Sosial	2541612X	Universitas PGRI Banyuwangi	Akreditasi Peringkat 5 mulai Volume 7 Nomor 2 Tahun 2018
	31	Studi Budaya Nusantara	26211068	Universitas Brawijaya	Akreditasi Peringkat 5 mulai Volume 2 Nomor 1 Tahun 2018
	32	Tafhim Al-'Ilmi: Jurnal Pendidikan dan Pemikiran Islam	25797182	Sekolah Tinggi Ilmu Tarbiyah Aqidah Usymuni	Akreditasi Peringkat 5 mulai Volume 10 Nomor 1 Tahun 2018
6	1	CERMIN: Jurnal Penelitian	26153238	Universitas Abdurachman Saleh Situbondo	Akreditasi Peringkat 6 mulai Volume 2 Nomor 1 Tahun 2018
	2	Journal of Education Science	26155338	Universitas Ubudiyah Indonesia	Akreditasi Peringkat 6 mulai Volume 4 Nomor 2 Tahun 2018
	3	Jurnal Biogenerasi	25797085	Universitas Cokroaminoto Palopo	Akreditasi Peringkat 6 mulai Volume 3 Nomor 2 Tahun 2018

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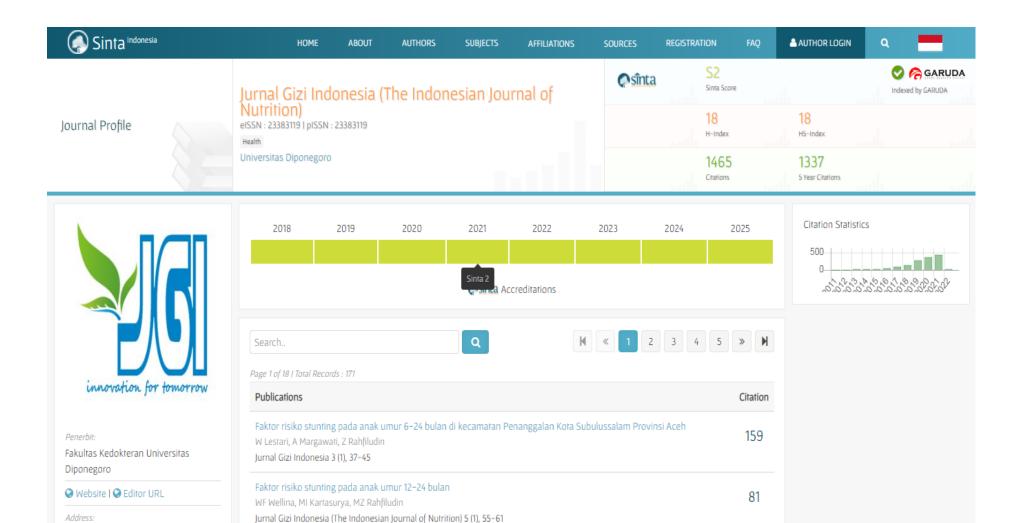
ttd.

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ttd.

Ardhien Nissa Widhawati Siswojo



JL.Prof. Soedarto, SH, Tembalang



Jurnal Gizi Indonesia

(The Indonesian Journal of Nutrition)



① Current issue: Vol 9, No 2 (2021): Juni (https://ejournal.undip.ac.id/index.php/jgi/issue/current). | Archives (https://ejournal.undip.ac.id/index.php/jgi/issue/archive). | Start Submission (https://ejournal.undip.ac.id/index.php/jgi/about/submissions) Manuscripts must be in English (https://ejournal.undip.ac.id/index.php/jgi/announcement/view/161)

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AJUKAN (https://www.youtube.com/watch?v=i5a9feXUrwU) ANGGANA

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Most cited articles (#tabCited)

Vol 9, No 2 (2021): Juni

Effect of tomato and red guava juice on blood glucose level <u>in overweight woman</u>

(https://ejournal.undip.ac.id/index.php/jgi/article/view/26866)

Aghnia Ilma Izzati, Mohammad Jaelani, Yuwono Setiadi, Enny Rahmawati, Yulianto Yulianto

Citations 0 (https://badge.dimensions.ai/details/doi/10.14710/jgi.9.2.80-85? domain=https://ejournal.undip.ac.id)

| Language: EN (#) | DOI: 10.14710/jgi.9.2.80-85

(https://doi.org/10.14710/jgi.9.2.80-85)

The acute supplementation of combination juice of yellow <u>watermelon (citrullus lanatus thunb.) - plantain (musa</u> <u>paradisiacal var. Sapientum I.) suppress post-exercise</u> blood lactic acid production in rats

(https://ejournal.undip.ac.id/index.php/jgi/article/view/25785)

🖰 Farida Farida, Hesti Permata Sari, Afina Rachma Sulistyaning

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| Language: EN (#) | DOI: 10.14710/jgi.9.2.73-79 (https://doi.org/10.14710/jgi.9.2.73-79)

The implementation of nutrition improvement programs for underweight children, wasting and stunting in the **Department of Health, Central Buton district, Southeast**

(https://ejournal.undip.ac.id/index.php/jgi/article/view/27425)

Ani Margawati, Zen Rahfiludin

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<u>Profile of nutritional status, energy availability,</u>

haemoglobin levels and bone density in santriwati (Islamic (https://ejournal.undip.ac.id/index.php/jgi/article/view/28493/19698) female student) with chronic energy deficiency risk (https://ejournal.undip.ac.id/index.php/jgi/article/view/28493)

🖰 Fillah Fithra Dieny, A Fahmy Arif Tsani, Umu Faradilla, Ayu

Citations 0 (https://badge.dimensions.ai/details/doi/10.14710/jgi.9.2.97-104? domain=https://ejournal.undip.ac.id)

| Language: EN (#) | DOI: 10.14710/jgi.9.2.97-104 (https://doi.org/10.14710/jgi.9.2.97-104)

Ganyong-kelor snack bar's glycemic index as a diet for

(https://ejournal.undip.ac.id/index.php/jgi/article/view/28652) A Diyan Yunanto Setyaji, Fransisca Shinta Maharini

Citations 0 (https://badge.dimensions.ai/details/doi/10.14710/jgi.9.2.105-

110?domain=https://eiournal.undip.ac.id)

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Ganyong-kelor snack bar's glycemic index as a diet for diabetics

Diyan Yunanto Setyaji^{1*}, Fransisca Shinta Maharini²

ABSTRACT

Background: Lack of insulin or the inability of cells to respond to insulin causes high blood glucose levels or hyperglycemia, a hallmark of diabetes. Consumption of foods with a low glycemic index and high fiber has been shown to provide the same benefits as pharmacological therapy in the control of postprandial hyperglycemia and can prevent the incidence of hypoglycemia in people with diabetes. Ganyong (Canna edulis) is a food source of carbohydrates and fiber. Kelor (Moringa oliefera) contains protein and some phytochemical compounds which have a hypoglycemic effect.

Objectives: The objective of the study was to analyze the glycemic index of ganyong-kelor snack bars as a diet for diabetics.

Materials and Methods: Ten respondents fasted for 10 hours and checked their fasting blood glucose levels, then consumed 105 grams of bread as the reference food. Every 30 minutes after eating, the blood glucose levels were checked. In the following week, after fasted, all respondents consumed 157 grams of a ganyong-kelor snack bar and checked their blood glucose levels every 30 minutes.

Results: Every 100 grams of ganyong-kelor snack bar contains 230.13 kcal, 31.97 grams of carbohydrates, 9.25 grams of fat, and 4.75 grams of protein. In this study, bread was used as a reference food. If bread was corrected with glucose as a reference food, the glycemic index of the ganyong-kelor snack bar was 38.08. The calculation of the glycemic load used the converted-glycemic index and the total carbohydrates contained in 100 grams of the food. Ganyong-kelor snack bar had a glycemic load value of 12.10.

Conclusions: Ganyong-kelor snack bar had good nutritional content and was categorized as food with a low glycemic index. The hypoglycemic effect of the ganyong-kelor snack bar came from its high fiber content. Ganyong-kelor snack bar can be consumed as a healthy snack for diabetic people.

Keywords: Ganyong; Canna; Kelor; Moringa; Diabetes

BACKGROUND

Diabetes mellitus is a chronic condition that occurs as a result of increased levels of glucose in the blood caused by the body's unable to produce sufficient amounts of insulin or the body is unable to use the insulin produced effectively. Lack of insulin or the inability of cells to respond to insulin causes high blood glucose levels, or hyperglycemia, which is a hallmark of diabetes.² In 2017 the prevalence of diabetes mellitus globally is 8.8% or around 425 million adults with 85-95% of these cases are type 2 diabetes mellitus and is expected to increase to 9.9% in 2045.²⁻⁴ The prevalence of diabetes mellitus in Indonesia increases rapidly from 5.7% in 2007 to 6.9 % in 2013 to 8.5% in 2018.5 Diabetes mellitus has a significant economic impact on countries, health systems, and diabetics or families through direct medical costs and job losses and reduced wages.⁵

Modifiable risk factors for type 2 diabetes mellitus include poor diet and nutrition, excess adiposity, low physical activity, prediabetes or impaired glucose tolerance (IGT), smoking habits, and a history of fetal exposure to high blood glucose

during pregnancy.⁴ Recent evidence suggests an association between regular exposure to a high glycemic load diet and causing postprandial hyperglycemia.⁶⁻¹¹ Consumption of foods with low glycemic index and high fiber has been shown to provide the same benefits as pharmacological therapy in the control of postprandial hyperglycemia in the medium term and can prevent the incidence of hypoglycemia in people with diabetes.¹¹⁻¹³ This type of diet can improve insulin sensitivity and fat metabolism.¹⁴ This can provide a good choice for diabetics and can reduce health care costs.

Ganyong (*Canna edulis*) is a food source of carbohydrates with a low glycemic index (20.8) and high fiber (8.59%). The starch content of ganyong consists of 25% amylose. ^{15.16} The protein content of kelor (*Moringa oliefera*) leaves is 35% of the dry weight. Kelor leaves contain some phytochemical compounds such as alkaloids, flavonoids, glycosides, tannins, and steroids, which have a hypoglycemic effect. ^{17,18} Diabetics must maintain their diet, type, and calorie content in food, especially in those who use insulin secretion-enhancing drug therapy or

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Catfish (Clarias sp.) as an animal protein source to improve serum albumin levels of hemodialysis patients

Fery Lusviana Widiany*, Ari Tri Astuti

ABSTRACT

Background: Hemodialysis patients often experience hypoalbuminemia complications, which occur mainly due to decreased synthesis due to inflammation, lack of protein intake, the fluid status of patients, and losses from the dialysate. Another problem in hemodialysis is malnutrition, with a prevalence between 23–73% globally. Gastrointestinal disorders such as nausea, vomiting, and decreased appetite also often occur in hemodialysis. Therefore, hemodialysis patients need to get nutritional support, which can be given in the form of catfish abon, one of the local Indonesian food.

Objective: To determine the effectiveness of the use of catfish as a source of animal protein to improve the albumin levels of hemodialysis patients.

Materials and Methods: This was a quasi-experimental study with a pre-post test design. This study involved 34 hemodialysis patients as subjects, with inclusion criteria, were routinely two times a week, aged >18 years, willing to be the subject and follow the research procedures, have albumin levels ≥3.0 g/dL, and no catfish allergies. Patients with anasarca edema, experiencing complications of diabetes mellitus and malignancy were excluded. The dependent variable was albumin content, while the independent variable was catfish as an animal protein source. Data were analyzed univariate and bivariate by Fisher's Exact test.

Results: Fisher's Exact test results on the effectiveness of using catfish as an animal protein source to improve albumin levels of hemodialysis patients showed p-value=0.048.

Conclusion: The use of catfish as an effective animal protein source significantly affected on improving albumin levels in hemodialysis patients.

Keywords: Nutritional support; Catfish (Clarias sp.); Albumin levels; Hemodialysis patients.

BACKGROUND

Chronic kidney disease is a global widespread epidemic disease, which a prevalence rate is 5-15%. The incidence rate of end-stage renal disease patients requiring dialysis is also increasing (1). Basic Health Research in Indonesia shows that the prevalence of chronic kidney disease nationally increased from 0.2% in 2013 to 0.38% in 2018. Province Special Region of Yogyakarta, where the Panembahan Senopati Hospital is located, ranked 12th nationally for the prevalence of chronic kidney disease (2).

Panembahan Senopati Bantul Hospital is a large type B hospital, which obtained a hospital-level plenary accreditation certificate. Panembahan Senopati Bantul Hospital is one of the hospitals that has a Hemodialysis Unit in Bantul Regency. Based on data from the 2013 Panembahan Senopati Bantul General Hospital annual report, the number of chronic kidney disease patients undergoing hemodialysis is increasing every year. In 2011, the number of routine hemodialysis patients was 111 people, in 2012, it increased to 125 people, in 2013, it became 142 people, and in 2014 it increased again to 144 people. The hemodialysis patient is accommodated in a room (Hemodialysis Unit) with a capacity of 22 beds.

Hemodialysis patients often experience hypoalbuminemia complications, which occur mainly due to decreased synthesis due to inflammation, lack of protein intake, the fluid status of patients, and losses from dialysate (3,4). Another problem that often arises in hemodialysis is malnutrition, with a prevalence between 23–73%

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The acute supplementation of combination juice of yellow watermelon (citrullus lanatus thunb.) - plantain (musa paradisiacal var. Sapientum l.) suppress post-exercise blood lactic acid production in rats

Farida*, Hesti Permata Sari, Afina Rachma Sulistyaning

ABSTRACT

Background: Yellow watermelon contains citrulline, which can suppress lactic acid production, while plantains contain potassium which is important for muscle performance. The yellow watermelon and plantain combination juice potential to be a natural sports drink that delays muscle fatigue by suppressing lactic acid production after exercise.

Objectives: To determine the effect of yellow watermelon-plantain juice on lactic acid in rats after swimming test. **Materials and Methods**: This true experimental study used a post-test-only with controlled group design. Thirty Sprague Dawley rats, eight-week-old, male, were divided into five groups, namely positive control (C+), negative control (C-), dose 1 (P1), dose 2 (P2), and dose 3 (P3). The C (+) group received no juice and was not tested swimming, the C (-) group received no juice but was tested swimming, P1 received combined juice up to 1.8 g and tested swimming, P2 received combined juice up to 3, 6 g and tested swimming, P3 received combined juice up to 1.8 g with the addition of 0.27 g granulated sugar and tested swimming. The juice is given 30 minutes before the test. The swim test was performed for three minutes; after that, the blood was taken to test the lactic acid levels. The data were analyzed using the one-way ANOVA and the advanced post-hoc with the least significant difference test. **Results**: The lactic acid levels in C (+), in C (-), P1, P2, and P3 groups after swimming test were 1.38 mMol / L; 7.14 mMol / L; 3.74 mMol / L; 1.66 mMol; and 2.91 mMol/L. There were differences in levels of lactic acid (p <0.05) in each group after the combination juice intervention was given.

Conclusion: Combination juice of yellow watermelon-plantain has an effect on lactic acid levels after swimming test. Dose 2 (3.6 g) was the best because it produces the lowest lactic acid after the swimming test.

Keywords: Yellow watermelon; Plantain; Lactic acid; Swimming test

BACKGROUND

Energy metabolism during anaerobic exercise is accentuated exclusively from muscular strength with high explosive power. This process begins with the glucose breakdown process (glycolysis) as well as the glycogen breakdown process (glycogenolysis) and is independent of oxygen availability during ATP (Adenosine Tri Phosphate) formation. Thus, it is important to acknowledge glucose availability in the muscle

since its metabolic advantage is providing speed and strength in a short period.

Low performance in exercise can be caused by lactic acid accumulation which faster than it should be. However, exercising has an unavoidable side effect that is the production of lactic acid, which might induce muscle fatigue. L-citrulline is one of the most popular types of nutritional supplements that are legal ergogenic aids. L-citrulline has beneficial functions such as accelerating metabolite waste removal like lactic

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Principle Investigator

Nama Institusi : Universitas Diponegoro

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Tittle

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"Evaluation of The Implementation of Toddler Nutrition Improvement Program for Buton District Health Office in Southeast Sulawesi"

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dr. M. Sakundarno Adi,M. Sc, Ph. D NIP. 196401101990011001 The implementation of nutrition improvement programs for underweight children, wasting and stunting in the Department of Health, Central Buton district, Southeast Sulawesi

by Mohammad Zen Rahfiludin

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The implementation of nutrition improvement programs for underweight children, wasting and stunting in the Department of Health, Central Buton district, Southeast Sulawesi

Nur Wulandari1*, Ani Margawati2, M. Zen Rahfiludin3

ABSTRACT

Background: Health status can affect the Human Development Index (HDI) of a country. To improve the quality of human resources, the Indonesian Government has applied various policies, such as the nutrition improvement program, since there are still lots of toddlers suffering from underweight, wasting dan stunting. Even one out of three toddlers in Indonesia were detected stunting.

Objectives: This study described the implementation of a nutrition improvement program for toddlers in the Central Buton District Health Office.

Materials and Method: This was a qualitative study that involved ten informants. Three of those informants are nutritionists in the District Health Office, Head of Public Health Department, Head of NutritionDepartment. Also, two nutrition workers in primary healthcare centers and two mothers of malnourished toddlers.

Results: These findings showed that in terms of input, trained human resources on nutrition were lacking, and the budget for the nutrition improvement program was inadequate. While, in the process, all implementors had done very well, although they still had no collaboration across sectors. In the output aspect, the health status of underweight, wasting, and stunting toddlers improved. Also, monitoring and evaluation were conducted on toddlers registered at the integrated service posts in 2018.

Conclusions: There were still constraints on the input, process, and output aspects, even though there was an increase in the nutritional status of children under five, but nutrition problems for children under five in Central Buton Regency were still high.

Keywords: Nutritional improvement program; Toddlers; Implementation

BAGKGROUND

Nutritional problem is a problem in the life cycle, starting from pregnancy, infants, toddlers, teens, to the elderly. The nutritional problem can occur in all age groups, even nutritional problems in a certain age group will affect nutritional status in the next life cycle (intergenerational impact).¹

Indonesia nowadays is still faces nutritional problems such as underweight, wasting, and stunting, this can affect the quality of human resources, because growth constraints during toddlers have the potential to

experience non-communicable diseases in adulthood.² According to the President of the Republic of Indonesia, the fulfillment of nutrition is one of the best long-term investments that can be made, apart from requiring skilled human resources, of course, Indonesia also needs healthy human resources. The health status of a nation can affect the human development index (HDI), therefore the government is committed to making efforts to overcome various nutritional problems by 23 suing various policies on nutrition improvement.⁸

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Toddler age is a period where the process of growth and development occurs very rapidly, with high activity and learning changes. At this time the child's brain develops rapidly up to 80%, so it requires sufficient nutrient intake in both quantity and quality, if the nutritional intake is not fulfilled, the physical and intellectual growth of toddlers will experience disruption, as a result, toddlers become lost generation, and can adversely affect the country due to the lack of quality human resources.⁴

In 2017, the number of children under five in Indonesia is around 22.4 million every year, there are at least 5.2 million women in Indonesia who are pregnant, so the average number of baby-born every year is 4.9 million, and baby with short birth conditions have the potential to the increase in the number of children under five with stunting, whereas in 2018 there were 17.8% of children under five suffering from malnutrition, 12.7% among under-five children with malnutrition, 12.7% of whom were short, for that intervention to reduce stunting would reduce under-nutrition Mal₃ trition).⁵

Stunting is a chronic nutritional problem caused by a lack of nutritional intake for a long time, characterized by a lack of height from the standard children in general, this oc 20 s since the child is still in the womb until the age of 2 years or the first 1000 days of life and the child is stunted after 2 years of age cannot be changed anymore so what can be done is to maximize the potential for brain development. In contrast to stunting, malnutrition takes place in a shorter time, that is, when the child experiences normal growth up to a certain age, then there is a change in diet which causes the toddler to no longer getting enough intake, as a result, the child loses weight in a short time but the recovery also fast. Apart from stunting and malnutrition, There is also malnutrition, namely children under five who are underweight children of their age. Another nutritional problem is obesity or excess nutrition. Nutritional status is an important indicator for the health of children under five whose physical impact is measured anthropometry 15 nd categorized based on WHO standard with index weight/age, height/age, and body weight/height.6

The problem of child nutrition in Indonesia is very worrying because 1 in 3 Indonesian children is stunted, nationally the proportion of stunting among toddlers is 37.2% in 2013 to 30.8%, in 2018, the prevalence of under-nutrition is 19.6% years 2013 to 13.8% in 2018, the prevalence of malnourished toddlers is 5.7% in

2013 to 3.9% in 2018, the prevalence of underweight children is 12.1% in 2013 to 10.2% in 2018 while obese toddlers are 11,9% in 2013 to 8.0% in 2018, this is what then causes Indonesia to face a double burden. Although nationally from 2013 to 2018 there has been a decrease in the prevalence of nutritional problems in children under five, there are still gaps between provinces, especially the problem of stunting.⁷

The prevalence number of stunting at the provincial level is still very high, where 2 provinces have a stunting prevalence >40%, 18 provinces have a stunting prevalence of 30-40% and 23 provinces including Southeast Sulawesi have a stunting prevalence of 20-30%, and only DKI 24 arta has a stunting prevalence < 20%. Based on the results of monitoring the national nutritional status of Southeast Sulawesi in 2017, the highest stunting problem was in Central Buton Regency, namely 48.8% under five, 25.9% underweight, and 13.3% underweight. Also, the frequency of visits to children under five to the posyandu is decreasing along with the increasing age of the children, from 12,060 the number of children under five, with the coverage of under-fives weighed as much as 8,786 (73%) and 3,247 (27.14%) under-fives whose body weight is not monitored.8

Toddlers as the assets of our future (nation) must receive optimal nutritional care and attention as a series of individual and community nutritional needs through prevention, improvement, healing, and recovery efforts carried out in the community and health service facilities, including involving related sectors.9 The central government gives authority to the provincial government which then the provincial government delegates to the city/regency government to be responsibility for implementing efforts to improve nutrition. Based on the results of the field study, Central Buton is one of the districts in Southeast Sulawesi which is responsible for implementing the nutrition improvement program. The programs that have been implemented include monitoring the growth of toddlers at the health center, providing additional food, and tracking cases of toddler nutrition, this is done based on the regulation by the Indonesian Minister of Health no. 23 of 2014, to improve food consumption patterns following balanced nutrition improving behavior awareness of nutrition, physical activity, and health. 10,11 Based on this situation, the authors are interested in describing the implementation of the toddler nutrition improves ent program which consists of early detection of the status of children under five years old in the

2)pyright © 2021; Jurnal Gizi Indonesia (The Indonesian Journal of Nutrition), Volume 9 (2), 2021 e-ISSN : 2338-3119, p-ISSN: 1858-4942 Central Buton District through system elements consisting of Input, Process, and Output.

MATORIALS AND METHODS

This research is an observational study with a qualitative descriptive design, which was conducted in September 2018 - August 2019. The subjects of this 12 dy were nutrition staff and mothers of malnutrition children under five years old in the work area of the Health Office of Central Buton District, Southeast Sulawesi Province. The selection of informants was carried out by using the purposive sampling technique by observi25 Data collection methods were obtained through in-depth interviews, observation, and documentation of 10 informants consisting of 3 main nutrition staff informants (IU1, IU2, IU3) of the Health Office, and data validity was carried out on 7 triangulation informants of the Head of the Department Health (IT1), Head of Public Health (IT2), Head of the Family Health and Nutrition Section (IT3), 2 Nutrition Implementers of Puskesmas (IT4, and IT5), and 2 mothers under five years old with malnutrition (IT6, and IT7). The data collected includes system elements in a program policy consisting of input elements which include human resources, fifrastructure, and funds used in implementing the nutrition improvement program for children under five years old, especially monitoring the nutritional status of toddlers, next is the process element which includes planning, organizing, implementing, and monitoring evaluation. In addition to the two elements of input and process, there is also a third element, namely output as a reference to determine the success of the nutrition improvement program for children under five at the Health Office of Central Buton District, Southeast Sulawesi Province, where the nutritional status of children is assessed based on the Body Weight (BW) / Age (A) index which is categorized as undernutrition (Underweight), good nutrition and more nutrition. Body Height (BH) / Age (A) children were categorized as very short, short, and normal. Furthermore, the weight/height of children is categorized as very thin, thin, normal, and obese. This is based on the z-score according 5 the standard deviation value of growth according to the World Health Organization (WHO). Data malysis techniques in this study were carried out with data collection, data reduction, data display, and conclusion.

RESULTS

Central Buton Regency is one of the regencies in Southeast Sulawesi which consists of 7 districts. The Health Office is one of the elements implementing government affairs that is tasked with helping the regent carry out government affairs, especially in the health sector, this is stated in the Central Buton Regent Regulation No.13 of 2018 concerning the Position of the Organizational Structure, Duties and Functions and Work Procedure of the Health Service of Central Buton Regency. The Health Office consists of several fields, one of which is the public health sector, including a section of nutrition and family health which is responsible for running community nutrition improvement programs and carrying out coaching and cooperation with health centers in implementing community nutrition programs, maternal and child health services as well as other tasks related to family health and community nutrition. In this study, the authors focus on discussion with several aspects by a systems approach to be able to get an overview of the implementation of early detection programs and monitoring of the nutritional status of toddlers because a program will run well if it meets the target input, process and output indicators.

Input

1. Human Resources

The results of the interview implementation of the nutrition 18 provement program for children under five years old at the Health Office of Central Buton District based on the input element seen from the perspective of human resources (HR), that those involved in the nutrition improvement program were the Head of the Public Health Sector as the person in charge of the program, the head of the Family Health and Community Nutrition section. A program manager, and nutrition staff serving as report compilers and field technical advisors, and health center nutrition implementing staff (TPG) as executors of program activities. Human resources are people who are responsible for and coordinate the implementation of a program. Following are the results of interviews about human resources:

Based on the results, it was found that the nutrition staff of the Health Office was 3 people, 2 were civil servants (PNS), but one of them had never attended training on nutrition because only 6 months had worked as a nutrition staff the health office and 1 person was still as an intern, the head of the family health and nutrition section that has an educational background (Diploma/DIII) in Midwifery with a long term of 4 years in the health department. The head of the public health sector has an educational background (Diploma/DI) Nutrition department, has served for 2

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years, and the Head of the Health Office with a 2 years term. Nutrition staff at the Health Office can be said to be still lacking because at one time the nutrition staff who were still as an intern to become the person in charge of the nutrition improvement program, and the nutrition staff could get over-work. Besides, there is nutrition staff who have never attended training, especially training on nutrition during their time as nutrition staff at the Health Office.

IU1: the staff is still lacking, because we are only three of us, 1 is still an apprentice, but has worked 4 years and has attended training on nutrition, and 2 people are civil servants (PNS), but one of them has only worked for 6 months and has never attended any training while working at the health office, especially regarding nutrition, so sometimes we feel overwhelmed if suddenly there are reports of cases of malnutrition at the same time from various subdistricts, and the three of us and have to do tracking, some are doing intervention, field technical guidance and making nutrition reports to be accountable to during the evaluation meeting.

IT3: actually still lacking, because usually the person holding and responsible for one of the programs is an apprentice staff, as well as providing field technical guidance.

So it can be concluded that the nutrition staff at the Central Buton District Health Office in terms of quality and quantity is still not under the Minister of Health Regulation No. 26/2013 concerning the Implementation of Work and Practices for Nutritionists in Service Centers in section 17 states that nutrition workers in implementing nutrition services in health service facilities have the authority to participate in education, training, research and development of nutrition services.¹²

2. Facilities and infrastructure

Based on the results of interviews and observations of facilities and infrastructure, there were no obstacles in the provision of infrastructure because, in terms of the procurement of all supporting facilities, they were well maintained and available at the Health Office and the Puskesmas. The tools available consist of anthropometric tools, toddler weight scales, writing instruments, digital weighing devices, and height measurement tools, KMS (public health) books, recording and reporting forms, technical instructions for program implementation, additional food and medicines (vitamin A), which was available at the

posyandu. Also, the District Health Office validates health service facilities based on a predetermined operational permit. Validation is done by comparing the suitability of the condition of the medical equipment facilities and infrastructure needed in the field and those available in health service facilities. Following are the results of interviews with key informants and triangulation.

IU2: for the too-provision by the government (Dinas) then distributed to each puskesmas, however, there must be a report if the puskesmas needs/changes equipment, and if food for toddlers is malnutrition or lacking, usually the Health Office provides instant food such as biscuits, while the puskesmas works together Posyandu cadres provide local food, porridge, eggs and so on, and there are no obstacles in the provision of facilities and infrastructure at the Health Office.

IT2: anthropometric equipment is usually the agency that provides according to the needs of the puskesmas, and so far there have been no obstacles in the procurement of sarpras because there is always coordination and validation of medical devices in health services between the office and the puskesmas.

3. Fund

One of the components of the resources needed in organizing a health program is health financing or funds. Based on the results of interviews from the three nutrition staff at the Health Office, it was stated that the nutrition improvement program had been budgeted for in the Central Buton Regency (APBD), but because of the reduction or rationalization of the APBD, not all activities from the nutrition improvement program received a but the nutrition improvement program received a but the stakeholders who have an important role in the success of the program cannot be done because the funds have not been programmed and are not sufficient. Following are the results of interviews with key informants and triangulations.

Process

1. Planning

Planning is the basis of the process of implementing a program, so it must be formulated and conveyed so that the results are following the desired objectives.

The planning process for the nutrition improvement program for children under five at the Health Office of

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Central Buton District consists of human resource planning, implementation plans, budget plans, and monitoring and evaluation plans. Following are the results of interviews with informants.

Based on the results of the interview and data from budget planning book-keeping that there is a harmony between the statements of the main informant and the trianglation informant, it can be said that planning on the implementation of the nutrition improvement program for children under five years old has been carried out by the Health Office of Central Buton District so that program implementation can run well and achieve maximum results.

2. Organizing

Organizing is the process of preparing an organizational structure under the goals of the organization, its resources, and the environment. Organizing is very necessary to facilitate the implementation of programs that have been previously firmulated in planning. The organization of the nutrition improvement program for children under five years old at the Health Office of Central Buton District is described in several stages, namely the division of tasks, the appointment of a coordinator, and the activities to be carried out. Following are the results of interviews with key informants and triangulation

IU3: for the organizational structure, the implementation of the nutrition improvement program at the health office is in accordance with the organizational structure of the head of the service, in charge of the community health sector, coordinating the family health and nutrition section and nutrition staff as executors and monitoring whether or not the program is running at the puskesmas level because it is the party fully implementing it puskesmas, assisted by posyandu cadres because the target is toddlers with nutritional problems. The activities are monitoring the growth of children under five, providing additional food, and nutrition counseling. Most of the activities are carried out at the posyandu, besides that, the puskesmas collaborates with villages/sub-districts to provide additional food so that nutritional problems such as malnutrition, malnutrition and stunting are reduced.

IT4: because the service as a monitor is not the implementer, so we always involve the puskesmas in its implement 17 n, starting with the posyandu cadres, who report a problem to the puskesmas, then the puskesmas reports the problem to the health office, the office makes an activity plan citing the problem, then then reported to the government, in order to get support from both material and non-material.

3. Implementation

An implementation is an act of striving for all members involved in the program to achieve predetermined goals by their respective main tasks in planning. In the program for to implementation of nutrition improvement activities in the working area of the Health Office of Central Buton District, monitoring the growth of children under five at the posyandu, providing additional feeding for toddlers, and tracking cases. Following are the results of interviews with key informants and triangulation

IU1: It is still lacking because the nutrition improvement program has a variety of activities, so we are smart about using it, if the priority is usually we still try to do it with these funds, but we cannot do socialization so that we cannot work together with other sectors. outside of health to solve nutritional problems under five years old.

IT2: It is enough but there is still more supervision for funding program implementation, because there is a reduction or rationalization of the APBD Budget.

IU1: this nutrition improvement activity is carried out to reduce nutritional problems and its rove nutritional status, so it must involve many people such as the head of the public health, head of health and nutrition, nutrition staff, health center nutrition officers, medical personnel, cross-program medics and posyandu cadres, 14 sources the power to work together to improve the nutritional status of toddlers, such as pmt in posyandu, toddler nutrition screening or toddler nutrition tracking, For our own budget plans, for example for next year's budget, we must input this year's report, even then the funds we include in the activity report, are usually not suitable with the funds we get, then again we determine priority activities then the budget is put in dpa, while monitoring is carried out every quarter.

IT1: us and the puskesmas, and the community are trying to coordinate so that the implementation of nutrition improvement programs and other programs runs well according to the desired results

IT3: nutrition staff as the person in charge of the program in the department, nutrition implementing staff at the health center in charge of the puskesmas level, cadres, medical personnel, environmental health, for budget planning, the range I forget to look at later in the bookkeeping, because it is the nutrition staff who compile the budget. We plan to evaluate the evaluation once a year, because we also do monitoring every three months, so from monitoring we can correct any mistakes in implementation.

From the interview result with the nutrition staff as the main informant (IU1) and health center nutrition executives as triangulation informants (IT4), 118 was stated that the implementation of monitoring of the nutritional status of children under five was carried out guided by posyandu cadres under the auspices of the puskesmas. In addition, the next activity is the selection of cases of malnutrition, along with the results of interviews with nutrition staff at the health office (IU2), health center nutrition staff (IT4), and mothers of malnourished children under five years old (IT7). In addition to monitoring at the posyandu, there was also a screening to find out malnourished toddlers at the posyandu, puskesmas, and even home visits intending to find cases of malnutrition under five years old by measuring body weight according to age (BW/A) and weight according to height (BW/BH), as well as the presence of clinical signs such as abdominal disease. Also, the program for the improvement of nutrition for children under five is providing additional food for children under five. Following are the results of interviews with nutrition staff from the health office (IU3), TPG nutrition at the puskesmas (IT5), and mothers of malnourished children under five (IT7).

IU1: For nutritional status monitoring, it is done at the posyandu, if the office is just waiting for a report from the puskesmas if cases of malnutrition are found, so we only monitor what the puskesmas do.

IT4: We do monitoring the nutritional status of toddlers with cadres, like weighing them, because from weighing we can know whether there is a nutritional problem or not, but for malnutrition, we monitor it once a week by making home visits for 3 months.

4. Evaluation Monitoring

Monitoring and evaluation are carried out to determine performance in program implementation and to find out how the achievements of activities that have been implemented. The evaluation referred to in this paper is the evaluation and monitoring by the health affice of the puskesmas as the field implementer in the nutrition improvement program for children under five at the Health Office of Central Buton District. Following are the results of interviews with key informants and triangulation informants.

From the statement of the nutrition staff as the main informant (IU1) and the head of the health department as the triangulation informant (IT1), that monitoring is carried out to determine the course of an activity, to

prevent and minimize problems in the field, apart from monitoring the Health Office also evaluates the implementation of nutrition improvement programs. Following are the results of interviews with key informants and triangulation informants.

IU2: usually also done during the inspection at the posyandu, at the puskesmas, and even at home visits to find cases of malnutrition under five years old, usually due to lack of nutritious food intake and congenital diseases.

IT4: We conduct home visits if there are reports of cases of malnutrition, from posyandu cadres, for the counseling to be conducted every two months, even nutrition cases can also be obtained from the puskesmas, when a child being examined for health at the puskesmas is suspected of suffering from malnutrition.

IT7: So every time you weigh it at the clinic, your body weight does not increase, sometimes it goes down from the previous scale, you were also sick and then you were taken to the health center.

IU3-DKK: pmt is given on the guidance by cadres who work closely with the health center nutrition officers, but the materials are from the office such as biscuits, then the service distributes them to each puskesmas, later the puskesmas will be distributed at the posyandu, but usually for the posyandu we always recommend pmt in the form of local food.

IT5-PKM: after giving the pmt, we usually conduct counseling first to mothers of toddlers with nutritional status problems, to always provide food that contains energy and protein, as well as for the pmt that we provide if possible are sufficient for children who suffer from nutritional problems every day, and do not eat it by his brother or other people. Because pmt is only given to children who have nutritional status problems such as malnutrition, malnutrition, and stunting. But for toddlers with malnutrition cases once a week we check and monitor the child's weight at home for 90 days, besides that we are very helpful because the village is also involved in holding pmt.

IT6-IB: Every week the health worker visits the house, the child's weight is continuously measured, and given food, biscuits, packaged baby porridge, milk.

From the interview's result with nutrition stated at the Health Office as the main informant (IU3) and the head of the family health and nutrition section as triangulation informants (IT3), it was stated that the evaluation at the Health Office of Central Buton District was carried out to determine the performance achievements of activities.

DISCUSSION

1. Human Resources

Human resources (F₅) is an important aspect of implementing a program. Based on the results of the research, in carrying out the nutrit on improvement program for children under five, it is carried out by the public health sector, especially the family health and

IU1: for field monitoring we usually do it by monitoring the results of reports from the puskesmas, from here we can see the progress of activities in the field, and if there are obstacles, while for monitoring at the service level we usually hold a meeting every quarter to find out about program progress and solve problems. which is a barrier to implementation

IT1: supervision is carried out in stages, from the head of the department, head of the field, head of sections and programmers, so that each of them reports the course of activities and the results obtained, and is reported at the periodic meeting every quarter.

IU-3: evaluation is carried out once a year, namely at the end of the year, if there are things that have not been achieved then we will go to the field to see, what are the obstacles, such as yesterday's coverage of under-fives weighing is still below the national target, so we are working with the health center to carry out a sweeping of under-five weighing each village / kelurahan in their respective puskesmas area, by mobilizing cadres to take notes and toddlers who do not participate in posyandu, so that at the next posyandu they can attend the posyandu

IT3: usually at the end of each year we hold an evaluation meeting to find out the results of the implementation of the program that has been running for almost a year, and compare whether the results obtained are on target, and take corrective action if the results are not on target, so that the following year can reach the target.

nutrition section of the Health Office of Central Buton District, but in its implementation, it involves the puskesmas and cadres, who are tasked with carrying outweighing activities for children under five at posyandu, providing additional food, tracking the nutrition of children under five, as well as other

activities related to nutrition problems. Also, the results of the research show that the Health Office has limited human resources in the nutrition improvement program, both in terms of numbers, where there are only 3 nutrition staff, namely 2 civil servants (PNS), and 1 apprentice staff. If this is not done ver it can become an obstacle in implementing the nutrition improvement program for children under five at the Health Office of Central Buton District.¹² Based on previous research, there was a lack of health personnel resources at the Health Office of Central Buton District, especially nutrition staff, and there were still health centers that did not have nutrition workers, as well as inadequate access to roads so that they encountered obstacles in both the networking and tracking malnutrition activities.13

2. Facilities and infrastructure

Apart from competent human resources, supporting facilities and infrastructure are also needed in the implementation of nutrition improvement program activities for children under five. Based on the results obtained, the facilities and infr₁₂ ructure for the nutrition improvement program for children under five in the working area of the Health Office of Central Buton District are complete, both at the puskesmas and posyandu, such as anthropometric tools, tables for posyandu implementation activities, besides that the posyandu also involves the role of the village in providing materials local food for supplementary feeding (PMT) in the form of eggs and green bean porridge, this is very influential in the success of the implementation of the nutrition improvement program for children under five. Although the number of active posyandu in Central Buton District decreased from 91 posyandu in 2017 to 85 (62%) active posyandu in 2018, However, the level of awareness of mothers to invite their children to posyandu increased from 73% in 2017 to 85.7% in 2018, this can be a picture of the maximum implementation of several priority posyandu programs, especially nutrition improvement programs. In line with previous researd that posyandu is expected to be able to organize five priority programs, namely maternal and child health, family planning, nutrition improvement, immunization, and diarrhea prevention. Availability of adequate facilities and infrastructure, optimal management, and utilization can help achieve the success of a program. In line with previous research that posyandu is expected to be able to organize five priority programs, namely maternal and child health, family planning, nutrition improvement, immunization,

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and diarrhea prevention. Availability of adequate facilities and infrastructure, optimal management, and utilization can help achieve the success of a program. In line with previous research that posyandu is expected to be able to organize five priority programs, namely maternal and child health, family planning, nutrition improvement, immunization, and diarrhea prevention. Availability of adequate facilities and infrastructure, optimal management, and utilization can help achieve the success of a program.¹⁴

3. Fund

After competent human resources and complete infrastructure are needed, funds are also needed to support the implementation of a policy or program, because it will become complicated when realizing policy objectives when the funds needed are not sufficient to finance the entire series of activities of a program. In the implementation of the program to improve malnutrition, malnutrition, and stunting at the Health Office of Central Buton District, it is known that some program implementers have stated that the funds are not fully sufficient to carry out innovative activities such as cross-sector socialization, making posters and campaigns on improving nutrition, especially stunting toddlers. Based on secondary data, funds for the nutrition improvement program for children under five at the central Buton District Health office are around Rp. 10.100,000.00 in 2018, the lack of funds could be one of the causes for not maximizing the achievement of health development targets in the Central Buton District. Following previous research, although the availability of health service Facilities continues to increase, if this availability is not supported by the quality of health service in terms of human resources and financial support, it can result in the implementation of policies/programs being hampered in achieving goals because insufficient funds will affect the quality implementation of programs in the community.15

4. Planning

Based on the previous research, planning must be clear, both in terms of budget, human resources, and implementation targets according to the target, such as the activity plan for the empowerment team for family welfare is always synergized with the work plan and budget for regional work units. ¹⁶ The Health Office of Central Buton District has established a concept to minimize the problem of nutritional status in toddlers,

especially stunting, by determining the structure of the program implementation where the person in charge of the program is the nutrition staff at the health office, and the person in charge at the puskesmas level is the puskesmas nutrition officer. In this case, the health office nutrition staff is tasked with providing technical field guidance and making reports to be accountable to the section head, while the puskesmas is in charge of executing activities and goes directly to the community, together with health or community cadres who have been empowered and become partners for the puskesmas as a community mobilizer around them to care about the health and take part in the utilization of the health services provided, Also, other crossprograms are also involved, such as medical personnel, paramedics, environmental health and community health centers, but this has not been involved in other sectors. The target in implementing the program is toddlers with nutritional problems, as for the target plan, which is to reduce underweight toddlers to 5.3%, wasting toddlers 2.7%, and stunting toddlers 14% in

For budget planning is prepared a year before the implementation of the program carried out by the nutrition staff of the health office then the budget activity plan (RKA) is submitted to the government, usually the budget that comes out is less than the planned budget, after which the budget is reported in the form of a budget utilization document (DPA).) by the nutrition staff of the Health Office of Central Buton District. The Monitoring Plan will be carried out every quarter and evaluation is carried out once a year, namely at the end of the activity or towards the end of the year. To get maximum activity results, planning must be formulated clearly so that the process runs systematically, in other words, managerial planning will provide a comprehensive perspective on the activities to be carried out, both resources, time, or implamentation.17

5. **Grganizing**

Based on the Tesults of the research on the organization of the nutrition improvement program for children under five at the Health Office of Central Buton District, it is described in several stages, namely the division of tasks, the determination of the ordinator, and the activities to be carried out. The nutrition improvement program for children under five at the Health Office of Central Buton District is carried out following the existing organizational structure at

Be Health Office and in its implementation, it involves various parties, both from the scope of the health office and from the scope of the village / kelurahan. The nutrition improvement program that is implemented as the policyholder is the Head of the Health Office of Central Buton District, then the authority for its implementation is handed over to the public health sector which houses 3 sections, namely, the family health and nutrition section, the health promotion section, and the environmental health section.

Then regarding the division of tasks and responsibilities in implementation, it is entirely up to the puskesmas because there are already nutrition officers or regional supervisors whose job is to monitor the development of nutrition in their area. Based on the policy of the Health Office of Central Buton District government that all health workers at the health center, whether midwives, nutrition workers, or other health workers must cooperate in efforts to treat cases of nutrition in children under five, both in the form of screening and tracking, but the Health Office has not been able to cooperate with other people. other sectors/stakeholders, due to the lack of funds for socialization and advocacy.¹⁸

6. Implementation

The implementation of the program is one indicator of the success of a program because the success of the program will be obtained if the nanned program can be implemented properly. The implementation of the nutrition improvement intervention program for malnourished children under five, malnutrition and stunting at the Central Buton district health office is by monitoring the nutritional status of children under five at the posyandu, screening for cases of malnourished children under five, and providing additional food for malnourished toddlers. From the results of the study, it was found that growth monitoring at the posyandu consisted of weighing children under five, measuring the height of toddlers which was carried out every month by posyandu cadres together with puskesmas consisting of midwives, implementing officers, and nurses, giving vitamins and medicines, supplementary feeding for toddlers, as well as monitoring the growth of children under five with stun 26g, wasting, underweight to prevent and improve the nutritional status of children under five. Growth monitoring is a follow-up to policies and programs at the community level so that people have the power and efforts to address health problems so that nutritional problems can be resolved properly. Apart from that, the

selection is also carried out to trace cases of malnourished toddlers, so that all mothers of toddlers routinely take their children to the posyandu. The implementation of screening is carried out in two stages, the first is that the screening is carried out every two months at the posyandu, secondly, the screening is carried out at the health center when the toddler visits the health center to have his disease checked and the health worker knows that the toddler is suffering from malnutrition

To fulfill and improve the nutritional status of children under five, nutrition officers together with posyandu cadres provide additional food for toddlers. The categories for under-nutrition and stunting children were given additional food in the form of biscuits which were given by cadres at the posyandu, while toddlers with cases of malnutrition were given factory food, biscuits, milk, eggs, and local food if there was assistance from the village / kelurahan. as well as educating mothers of toddlers on providing nutritious foods both at the community center at their home. Apart from that, nutrition workers at the health center, as well as from the local government office, also conduct home visits to malnourished toddlers every week for 3 months to find out the progress and monitor the growth of toddlers by measuring BH, BW, Lila, and head circumference of toddlers, as well as monitoring the environment where toddlers live. 19

7. Evaluation monitoring

Monitoring evaluation is very necessary so that the implementation stage can rung well and on target according to the program plan. Based on the results of the study, it was found that in the nutrition improvement program for children under five, the health department also carried out a monitoring stage which was carried out every quarter, monitoring was carried out by the health office based on the activity report of the puskesmas because from these reports the health department nutrition staff could find out and supervise the program activities and prevent any deviations in the field. If irregularities are found during supervision, the service office can make corrections as soon as possible so that activities can return to the predetermined path. The monitoring stages are also leveled from the posyandu level, the puskesmas level, and the health department level. Monitoring by the Health Office can be carried out in 2 stages, namely direct visits or by observing the results of the activity report. Monitoring is the process of observing activities on an ongoing basis to minimize any deviations because if there are deviations, modifications or changes are needed so that implementation remains on the planned path.^{20,21}

In addition to monitoring, the Health Office also conducts an evaluation every once a year, the evaluation is carried out at the end of the year, but if there is an extraordinary event (KLB) in an area, we usually do an evaluation as well. Evaluation is carried out in meetings and meetings at the Health Office, where at the meeting each program holder describes the results of the achievement of the implementation of activities as well as obstacles during program implementation. The evaluation of the results obtained from the implementation of the nutrition improvement program for children under five at the Health Office of Central Buton trict consisted of the results of monitoring the status of toddlers at the center, the results of the screening of cases of malnutrition, the results of the provision of additional food for undernutrition, malnutrition, and stunting in the district. Central Buton, If there are indicators that have not met the target, an evaluation meeting is held at the health department level, to find out the obstacles and how to overcome them so that the target year can be achieved in the next implementation. The health office as the holder of the authority for the nutrition improvement program plays a full role in observing all existing activities in the field by continuing to coordinate with the puskesmas and cadres so that problems that occur can be minimized properly.²² Evaluation is an orderly and systematic process of comparing the results achieved with the benchmarks set criteria, then drawing conclusions based on suggestions and input from each program implementer, because it will be difficult to know the extent to which the objectives of the planning are achieved if no evaluation is carried out.23

Output

Nutrition status monitoring activities are actively carried out by nutrition officers at the health center through the weighing month for under-fives which is carried out twice a year. The state of poor nutrition will reduce the body's resistance which will cause children to get sick easily, resulting in death. Prevention of cases of malnutrition, deficiency, and stunting is carried out by providing additional food (PMT) which is funded through the Central Buton Regency APBD and Southeast Sulawesi Provincial APBD, PMT which is given in the form of milk, MP-ASI biscuits, and milk porridge. Almost all of the cases assisted had gained weight. Prevention of malnutrition under five who

require treatment is carried out at the health center, but if there is a congenital disease, the toddler is referred to the Central Buton Hospital.

Nutritional status	2017	2018
Underweight	25.9%	17%
Stunting	48.8%	28%
Wasting	13.3%	9.5%



Based on the results of research and primary data, it is revealed that all toddlers with nutritional problems have received 100% treatment, so there is an increase in the nutritional status of toddlers in 2018, which is marked by a very significant decrease in the problem of nutritional status of children from 2017-1018. In addition, there was an increase in the coverage of under-fives weighing, where the frequency of underfive visits to posyandu in 2017, from 12,060 the number of toddlers, with the coverage of under-five weighed as much as 8,786 (73%) and 3,247 (27.14%) under-fives whose body weight was not monitored, while in 2018 The number of toddlers weighed was 10,870 children with a community participation level of 85.7% of the results obtained, exceeding the national target that has been set, namely 80%, and exceeding the scope of achievement in 2017.10

CONCLUSIONS

The nutrition improvement program for children under five in Central Buton District still has several unfulfilled aspects, such as a lack of human resources in quantity and quality, a lack of budget for nutrition improvement programs, which is only around Rp. 10,100,000.00 in 2018, lack of socialization, especially stunting across other sectors, as a result, the problem of stunting in Central Buton Regency is the highest in the Southeast Sulawesi province in 2018, for that the local government needs to make even better efforts.

There is still a need for training for nutrition staff at the Health Office and Nutrition Implementers at health centers, need to increase health funds from the APBD for health development programs, especially community nutrition, need cross-sector and crossprogram cooperation in reducing nutrition problems in children under five in Central Buton district, and increasing utilization and socialization of cadres to mothers of children under five so that local communities have higher motivation in efforts to improve health status both within the family and in the community.

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