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

Judul Artikel Ilmiah	:	**Risk Factors Associated with Low Birth Weight**
Nama semua penulis	:	**M. Zen Rahfiludin,** Yudhy Dharmawan
Status Pengusul (coret yg tidak perlu)	:	~~Penulis Utama/~~ **Penulis Utama & Korespondensi** ~~/ Penulis Korespondensi/ Penulis Anggota~~

Status Jurnal:

⁾ Nama Jurnal	:	**Kesmas : National Public Health Journal**
⁾ Tahun terbit/Vol/No/halaman	:	Volume 13/ Issue 2/ Halaman 75-80
⁾ Edisi (bulan, tahun)	:	November 2018
⁾ ISSN	:	2460-0601 (Online), 1907 – 7505 (Print)
⁾ DOI	:	-
⁾ Alamat WEB Jurnal	:	http://journal.fkm.ui.ac.id/index.php/kesmas/article/view/1719
⁾ Terindex di	:	Sinta 2 SK No. 30/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 Dikti, Sinta 1 atau 2
	[ ]	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* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata /Nilai Akhir yang diperoleh
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	2,5	2,5	2,5
b. Ruang lingkup dan kedalaman pembahasan (30%)	7,25	7,5	7,375
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	7	7,5	7,25
d. Kelengkapan unsur dan kualitas penerbit (30%)	7,5	7,5	7,5
Total = (100%)	24,25	25	**24.625**
Nilai pengusul = 60% X 24,625 = 14.775			

Reviewer 1

Prof. Dr. Sri Sumarmi, S.KM., M.Si
NIP 196806251992932002
Unit kerja: FKM Universitas Airlangga

Reviewer 2

Prof. Dr. Merryana Adriani, S.KM., M.Kes
NIP 195905171994032001
Unit kerja : FKM Universitas Airlangga

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

Judul Artikel Ilmiah	:	**Risk Factors Associated with Low Birth Weight**
Nama semua penulis	:	**M. Zen Rahfiludin,** Yudhy Dharmawan
Status Pengusul (coret yg tidak perlu)	:	~~Penulis Utama/~~ **Penulis Utama & Korespondensi** ~~/ Penulis Korespondensi/ Penulis Anggota~~

Status Jurnal:

⎩ Nama Jurnal	:	**Kesmas : National Public Health Journal**
⎩ Tahun terbit/Vol/No/halaman	:	Volume 13/ Issue 2/ Halaman 75-80
⎩ Edisi (bulan, tahun)	:	November 2018
⎩ ISSN	:	2460-0601 (Online), 1907 – 7505 (Print)
⎩ DOI	:	-
⎩ Alamat WEB Jurnal	:	http://journal.fkm.ui.ac.id/index.php/kesmas/article/view/1719
⎩ Terindex di	:	Sinta 2 SK No. 30/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 Dikti, Sinta 1 atau 2
	[ ]	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 Jurnal Nasional Terakreditasi Dikti, 1 atau 2	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	2,5	2,5
b	Ruang lingkup & kedalaman pembahasan (30 %)	7,5	7,25
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	7,5	7
d	Kelengkapan unsur dan kualitas jurnal (30%)	7,5	7,5
	Nilai Total	**25**	24,25
	Nilai yang didapat pengusul: 60% x 24,25 = 14,55		

Catatan Penilaian artikel oleh Reviewer

a	Kelengkapan unsur isi artikel	Unsur artikel telah memenuhi kaidah penulisan artikel dalam jurnal ilmiah
b	Ruang lingkup & kedalaman pembahasan	Artikel membahas tentang faktor risiko BBLR antara lain status gizi (lila) status zat besi serta paritas. Pembahasna mendalam dengan indikator transferin receptor. Jumlah referensi memadai
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Data mutakhir yang dihasilkan dari disain cross sectional dengan besar sampel memadai untuk analisis inferensial. Analisis statistic memadai. Penelitian telah melakukan uji kelayakan etik
d	Kelengkapan unsur dan kualitas jurnal	Diterbitkan oleh jurnal KESMAS Fakultas Kesehatan Masyarakat Universitas Indonesia, SINTA 2, similarity index 19%

Surabaya, 31 Desember 2019
Reviewer 1

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	:	**Risk Factors Associated with Low Birth Weight**
Nama semua penulis	:	**M. Zen Rahfiludin,** Yudhy Dharmawan
Status Pengusul (coret yg tidak perlu)	:	~~Penulis Utama/~~ **Penulis Utama & Korespondensi** ~~/ Penulis Korespondensi/ Penulis Anggota~~

Status Jurnal:

⎩ Nama Jurnal	:	**Kesmas : National Public Health Journal**
⎩ Tahun terbit/Vol/No/halaman	:	Volume 13/ Issue 2/ Halaman 75-80
⎩ Edisi (bulan, tahun)	:	November 2018
⎩ ISSN	:	2460-0601 (Online), 1907 – 7505 (Print)
⎩ DOI	:	-
⎩ Alamat WEB Jurnal	:	http://journal.fkm.ui.ac.id/index.php/kesmas/article/view/1719
⎩ Terindex di	:	Sinta 2 SK No. 30/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 Dikti, Sinta 1 atau 2
	[ ]	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 Jurnal Nasional Terakreditasi Dikti, 1 atau 2	Nilai yang didapat artikel
a	Kelengkapan unsur isi artikel (10 %)	2,5	2,5
b	Ruang lingkup & kedalaman pembahasan (30 %)	7,5	7,5
c	Kecukupan dan kemutahiran data/informasi dan metodologi (30 %)	7,5	7,5
d	Kelengkapan unsur dan kualitas jurnal (30%)	7,5	7,5
	Nilai Total	**25**	**25**
	Nilai yang didapat pengusul: 60% x 25 = 15		

Catatan Penilaian artikel oleh Reviewer

a	Kelengkapan unsur isi artikel	Telah sesuai dengan “Guide for author” substansi artikel telah sesuai dengan bidang ilmu pengusul yaitu bidang “Ilmu Gizi Kesehatan Masyarakat”. Telah ada benang merah pada struktur penulisannya.
b	Ruang lingkup & kedalaman pembahasan	Substansi artikel telah sesuai dengan ruang ligkup “Kesmas : National Public Health Journal”, kedalaman pembahasan telah melibatkan 39 rujukan dalam pembahasan
c	Kecukupan dan kemutahiran data/informasi dan metodologi	Data hasil penelitian menunjukkan ada kebaruan informasi, sehingga dapat ditarik kesimpulan yang dapat dipertanggung jawabkan
d	Kelengkapan unsur dan kualitas jurnal	Kesmas : National Public Health Journal merupakan jurnal nasional terakreditasi peringkat 2 dengan nomor akreditasi 30/E/KPT/2018. Diterbitkan oleh FKM Universitas Indonesia

Surabaya 3 Januari 2020
Reviewer 2

Prof. Dr. Merryana Adriani, S.KM., M.Kes
NIP 195905171994032001
Unit kerja : Fakultas Kesehatan Masyarakat Universitas Airlangga

KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI
DIREKTORAT JENDERAL PENGUATAN RISET DAN PENGEMBANGAN
Jl. Jenderal Sudirman Pintu Satu Senayan Jakarta 10270
Telepon (021) 57946042, 316-9804, Faksimil (021) 3101728
www.ristekdikti.go.id

SALINAN
KEPUTUSAN DIREKTUR JENDERAL PENGUATAN RISET DAN PENGEMBANGAN
KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI
REPUBLIK INDONESIA

30/E/KPT/2018

TENTANG

PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II
TAHUN 2018

DIREKTUR JENDERAL PENGUATAN RISET DAN PENGEMBANGAN
KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI,

Menimbang : a. bahwa dalam rangka melaksanakan ketentuan Pasal 6 ayat (5) Peraturan Menteri Riset, Teknologi dan Pendidikan Tinggi Nomor 9 Tahun 2018 tentang Akreditasi Jurnal Ilmiah, perlu menetapkan Peringkat Akreditasi Jurnal Ilmiah;

b. bahwa berdasarkan hasil akreditasi jurnal ilmiah yang ditetapkan oleh Tim Akreditasi Jurnal Ilmiah Kementerian Riset, Teknologi, dan Pendidikan Tinggi pada tanggal 27 September 2018 dan 12 Oktober 2018, perlu menetapkan Peringkat Akreditasi Jurnal Ilmiah Periode II Tahun 2018;

c. bahwa berdasarkan pertimbangan sebagaimana dimaksud pada huruf a dan huruf b, perlu menetapkan Keputusan Direktur Jenderal Penguatan Riset dan Pengembangan Kementerian Riset, Teknologi, dan Pendidikan Tinggi tentang Peringkat Akreditasi Jurnal Ilmiah Periode II Tahun 2018;

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);

2. 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);

3. Peraturan Presiden Nomor 13 Tahun 2015 tentang Kementerian Riset, Teknologi, dan Pendidikan Tinggi (Lembaran Negara Republik Indonesia Tahun 2015 Nomor 14);

4. Keputusan Presiden Nomor 121/P Tahun 2014 tentang Pembentukan Kementerian dan Pengangkatan Menteri Kabinet Kerja Periode Tahun 2014-2019;

5. Keputusan Presiden Nomor 99/M Tahun 2015 tentang Pemberhentian dan Pengangkatan Dari dan Dalam Jabatan Pimpinan Tinggi Madya di Lingkungan Kementerian Riset, Teknologi, dan Pendidikan Tinggi;

6. Peraturan Menteri Keuangan Republik Indonesia Nomor 49/PMK.02/2017 tentang Standar Biaya Masukan Tahun Anggaran 2018;
7. Peraturan Menteri Riset, Teknologi dan Pendidikan Tinggi Nomor 15 Tahun 2015 tentang Organisasi dan Tata Kerja Kementerian Riset, Teknologi dan Pendidikan Tinggi (Berita Negara Republik Indonesia Tahun 2015 Nomor 889);
8. Peraturan Menteri Riset, Teknologi, dan Pendidikan Tinggi Nomor 9 Tahun 2018 tentang Akreditasi Jurnal Ilmiah; (Berita Negara Republik Indonesia Tahun 2018 Nomor 428);

MEMUTUSKAN:

Menetapkan : KEPUTUSAN DIREKTUR JENDERAL PENGUATAN RISET DAN PENGEMBANGAN KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI TENTANG PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2018.

KESATU : Menetapkan Peringkat Akreditasi Jurnal Ilmiah Periode II Tahun 2018 sebagaimana tercantum dalam Lampiran yang merupakan bagian yang tidak terpisahkan dari Keputusan Direktur Jenderal ini.

KEDUA : Akreditasi Jurnal Ilmiah sebagaimana dimaksud dalam Diktum KESATU berlaku selama 5 (lima) tahun sejak dinilai baik oleh Tim Akreditasi Jurnal Ilmiah.

KETIGA : Akreditasi Jurnal Ilmiah sebagaimana dimaksud dalam Diktum KESATU dapat mengajukan kembali kenaikan peringkat setelah menerbitkan minimal 1 (satu) nomor penerbitan.

KEEMPAT : Setiap jurnal ilmiah wajib mencantumkan masa berlaku akreditasi dengan menuliskan tanggal penetapan dan tanggal akhir masa berlaku akreditasi.

KELIMA : Apabila dikemudian hari ditemukan ketidaksesuaian dengan Pedoman Akreditasi Jurnal Ilmiah, maka status akreditasi jurnal ilmiah yang bersangkutan dapat dicabut atau diturunkan.

KEENAM : Keputusan Direktur Jenderal ini mulai berlaku pada tanggal ditetapkan.

Ditetapkan di Jakarta
pada tanggal 24 Oktober 2018
DIREKTUR JENDERAL
PENGUATAN RISET DAN PENGEMBANGAN,

TTD.

MUHAMMAD DIMYATI
NIP 195912171984041001

Salinan sesuai dengan aslinya,
Direktorat Jenderal Penguatan Riset dan Pengembangan
Kementerian Riset, Teknologi, dan Pendidikan Tinggi
Kepala Bagian Hukum, Kerjasama, dan Layanan Informasi,

TTD.

Syarip Hidayat
NIP 197306101997031004

SALINAN
LAMPIRAN
KEPUTUSAN DIREKTUR JENDERAL PENGUATAN RISET DAN PENGEMBANGAN KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI
NOMOR 30/E/KPT/2018
TENTANG PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2018

PERINGKAT AKREDITASI JURNAL ILMIAH PERIODE II TAHUN 2018

Peringkat	No	Nama Jurnal	E-ISSN	Penerbit
Peringkat 1 (Satu)	1	Acta Medica Indonesiana	23382732	PB PAPDI (Perhimpunan Dokter Spesialis Penyakit Dalam Indonesia)
	2	AJAS (Agrivita Journal of agricultural science)	24778516	Fakultas Pertanian, Universitas Brawijaya
	3	Al-Jami'ah: Journal of Islamic Studies	2338557X	Universitas Islam Negeri Sunan Kalijaga
	4	Atom Indonesia	23565322	Badan Tenaga Nuklir Nasional
	5	Biodiversitas : Journal of Biolodical Diversity	20854722	Jurusan Biologi Fakultas Matematika dan Ilmu Pengetahuan Alam Universitas Sebelas Maret
	6	BIOTROPIA	1907770X	SEAMEO-BIOTROP
	7	Bulletin of Electrical Engineering and Informatics	23029285	Universitas Ahmad Dahlan
	8	Cakrawala Pendidikan	24428620	Lembaga Pengembangan dan Penjaminan Mutu Pendidikan UNY
	9	Electronic Journal of Graph Theory and Applications	23382287	Indonesian Combinatorial Society (InaCombS), Institut Teknologi Bandung (ITB) Indonesia dan GTA Research Centre, The University of Newcastle Australia
	10	*Gadjah Mada International Journal of Business*	23387238	Fakultas Ekonomika dan Bisnis Universitas Gadjah Mada
	11	HAYATI Journal of Biosciences	20864094	Perhimpunan Biologi Indonesia bekerja sama dengan Departemen Biologi Fakultas Matematika dan Ilmu Pengengetahuan Alam Institut Pertanian Bogor
	12	*IJAIN (International Journal of Advances in Intelligent Informatics)*	25483161	Universitas Ahmad Dahlan
	13	*IJASEIT (International Journal on Advanced Science, Engineering and Information Technology)*	24606952	INSIGHT -*Indonesian Society for Knowledge and Human Development*

				Masyarakat Sejarawan Indonesia
	33	*QIJIS (Qudus International Journal Of Islamic Studies)*	24769304	Pusat Penelitian dan Pengabdian Masyarakat (P3M) STAIN KUDUS
	34	Studia Islamika	23556145	UIN Syarif Hidayatullah Jakarta
	35	TEFLIN Journal	0215773X	TEFLIN (The Association of Teachers of English as a Foreign Language in Indonesia)
	36	*Tropical Animal Science Journal (Media Peternakan)*	2615790X	Fakultas Peternakan Institut Pertanian Bogor dan Himpunan Ilmuwan Peternakan Indonesia
	37	Wacana, Journal of the Humanities of Indonesia	24076899	Universitas Indonesia
Peringkat 2 (Dua)	1	Aceh International Journal of Science and Technology	25032348	Program Pascasarjana, Universitas Syiah Kuala
	2	Acta Veterinaria Indonesiana	23374373	Fakultas Kedokteran Hewan IPB
	3	Adabiyyat : Jurnal Bahasa dan Sastra	25492047	Fakultas Adab dan Ilmu Budaya Univ. Islam Negeri Sunan Kalijaga
	4	Addin	24769479	STAIN Kudus
	5	AFKARUNA: Indonesian Interdiscplinary Journal of Islamic Studies	25990586	Universitas Muhammadiyah Yogyakarta
	6	Agraris : Journal of Agribusiness and Rural Development Research	25279238	Program Studi Agribisnis, Fakultas Pertanian, Universitas Muhammadiyah Yogyakarta
	7	Agritech	25273825	Fakultas Teknologi Pertanian, Universitas Gadjah Mada
	8	Ahkam: Jurnal Ilmu Syariah	24078646	Fakultas Syariah dan Hukum, Universitas Syarif Hidayatullah Jakarta
	9	AKADEMIKA: Jurnal Pemikiran Islam	23562420	Lembaga Penelitian dan Pengabdian kepada Masyarakat Institut Agama Islam Negeri Metro
	10	Aksara	25800353	Balai Bahasa Bali
	11	Al-'Adalah	2614171X	Fakultas Syariah Universitas Islam Negeri Raden Intan Lampung
	12	Al-Ahkam	25023209	Fakultas Syariah dan Hukum, Universitas Islam Walisongo Semarang
	13	ALCHEMY Jurnal Penelitian Kimia	24434183	Universitas Sebelas Maret

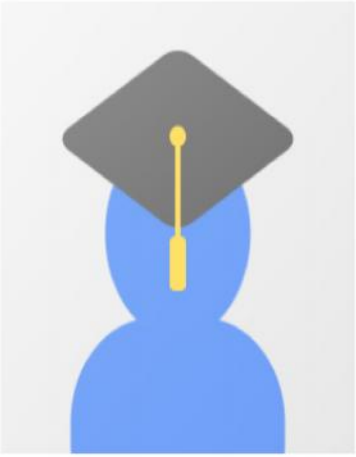
257	Jurnal Teknologi dan Sistem Komputer	23380403	Departemen Teknik Sistem Komputer, Universitas Diponegoro
258	Jurnal Teknologi Industri Pertanian	22523901	Departemen Teknologi Industri Pertanian, Institut Pertanian Bogor
259	Jurnal Teknologi Informasi dan Ilmu Komputer	25286579	Fakultas Ilmu Komputer, Universitas Brawijaya
260	Jurnal Teknologi Pendidikan	26203081	LPPM Universitas Negeri Jakarta
261	Jurnal Teknosains	24431311	Sekolah Pascasarjana Universitas Gadjah Mada
262	Jurnal Theologia	2540847X	Fakultas Ushuluddin dan Humaniora, Universitas Islam Negeri Walisongo
263	Jurnal Vektor Penyakit	23548835	Balai Litbang P2B2 Donggala, Badan Penelitian dan Pengembangan Kesehatan
264	Jurnal Veteriner : Jurnal Kedokteran Hewan Indonesia	24775665	Fakultas Kedokteran Hewan, Universitas Udayana
265	Jurnal Wasian : Wahana Informasi Penelitian Kehutanan	25025198	Balai Penelitian Kehutanan Manado
266	Jurnal Wilayah dan Lingkungan	24078751	Laboratorium Pengembangan Wilayah dan Manajemen Lingkungan, Departemen Perencanaan Wilayah dan Kota, Universitas Diponegoro
267	k@ta	23026294	Universitas Kristen Petra Surabaya
268	Kafa`ah : *Journal of Gender Studies*	23560630	Center for Gender and Chield Studies (PSGA) LP2M IAIN Imam Bonjol Padang
269	Kalam	25407759	Fakultas Ushuluddin UIN Raden Intan Lampung
270	Kalpataru	25500449	Pusat Penelitian Arkeologi Nasional
271	KARSA: Jurnal Sosial dan Budaya Keislaman	24424285	STAIN PAMEKASAN
272	KEMAS : Jurnal Kesehatan Masyarakat	23553596	Jurusan Ilmu Kesehatan Masyarakat, Fakultas Ilmu Keolahragaan, Universitas Negeri Semarang
273	Kesmas: Jurnal Kesehatan Masyarakat Nasional	24600601	Fakultas Kesehatan Masyarakat Universitas Indonesia
274	KOMUNITAS: *INTERNATIONAL JOURNAL OF INDONESIAN SOCIETY AND CULTURE*	24607320	Jurusan Sosiologi dan Antropologi Universitas Negeri Semarang

Journal Profile

Kesmas: National Public Health Journal

eISSN : 24600601 | pISSN :
Health
Universitas Indonesia

sinta	S1 Sinta Score	Scopus Indexed by Scopus	GARUDA Indexed by GARUDA
	23 H-Index	21 H5-Index	
	2418 Citations	1955 5 Year Citations	



Penerbit:
Fakultas Kesehatan Masyarakat Universitas Indonesia

Website | Editor URL

Address:
Gedung A Lantai 3 Rumpun Ilmu Kesehatan Fakultas Kesehatan Masyarakat Universitas

Citation Statistics

Search..

« 1 2 3 4 5 »

Page 1 of 16 | Total Records : 160

Publications	Citation
Manajemen penyakit berbasis wilayah UF Achmadi Penerbit Buku Kompas 3, 228–248	499
Manajemen penyakit berbasis wilayah UF Achmadi Rajawali Press	481
Manajemen penyakit berbasis wilayah UF Achmadi Kesmas The National Journal of Public Health 3 (4)	452

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal)

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) | Vol 15, No 4 (2020): Volume 15, Issue 4, November 2020

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) is a journal published by Faculty of Public Health Universitas Indonesia since August 2006 with the title Kesmas: Jurnal Kesehatan Masyarakat Nasional, then used to be National Public Health Journal as a translation. This journal has been accredited by the Ministry of Research, Technology and Higher Education in the periods 2009-2012, 2012-2017, and 2017-2021. It is accredited in Sinta-1 since 2019 (No. 85/M/KPT/2020) and also indexed by Scopus for coverage articles published from 2016. This journal is published quarterly in February, May, August, and November.

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) is on public health as discipline and practices related to preventive and promotive measures to enhance the health of the public through a scientific approach applying a variety of techniques. This focus includes areas and scopes such as biostatistics, epidemiology, health education and promotion, health policy and administration, environmental health, public health nutrition, sexual and reproductive health, and occupational health and safety.

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) was first published every two months since August 2006 with 50 pages in every edition and purple cover. Then from August 2012 to February 2014, our journal was published monthly and orange peach cover with picture. Due to managerial restructuring since May 2014, our journal has been published quarterly (February, May, August, November) with an additional number of the page to 100 pages from 50 pages in every edition and the orange peach cover without any picture. In order of internationalization of the journal since August 2015, every edition now consists of 50 pages and articles in English. Due to managerial restructuring since 2020, the first issue of the new edition will be started in February.

Since August 2016 (Volume 11 Issue 1), we publish the journal with the new name as Kesmas: National Public Health Journal. Since May 2020 (Volume 15 Issue 2), we publish the journal with the new name as **Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal)** to maintain the consistency of writing the name of the journal.

The journal employs a peer-review mechanism where each submitted article should be anonymously reviewed by expert peers appointed by the editor. Articles published in this journal could be in the form of a research article and an invited review article.

Kesmas: Jurnal Kesehatan Masyarakat Nasional (National Public Health Journal) opens submission for a **special edition** with a thematic issue, supplement, and proceeding.
For further information, please contact us by phone at +62815-1141-6600 or e-mail: jurnalkesmas.ui@gmail.com.

Kesmas
Jurnal Kesehatan Masyarakat Nasional
(National Public Health Journal)

Editorial Team

p-ISSN: 1907-7505
e-ISSN: 2460-0601

Kesmas
Jurnal Kesehatan Masyarakat Nasional
(National Public Health Journal)

Open Journal Systems

DOI: http://dx.doi.org/10.21109/kesmas.v13i2 (http://dx.doi.org/10.21109/kesmas.v13i2)

Full Issue

View or download the full issue Full Issue (/kesmas/issue/viewIssue/120/42)

Articles

DOI : 10.21109/kesmas.v13i2.1875 (http://dx.doi.org/10.21109/kesmas.v13i2.1875)
Abstract view : 242 times
Kadek Suranugraha, Ni Made Sri Nopiyani, Pande Putu Januraga

PDF (/kesmas/article/view/1875/808) | *92-98*

Utilization of Styrofoam as Soundproofing Material with Auditory Frequency Range (/kesmas/article/view/2633)
DOI : 10.21109/kesmas.v13i2.2633 (http://dx.doi.org/10.21109/kesmas.v13i2.2633)
Abstract view : 223 times
Sjahrul Meizar Nasri, Iting Shofwati

PDF (/kesmas/article/view/2633/803) | *99-104*

p-ISSN: 1907-7505
e-ISSN: 2460-0601

LANGUAGE

Select Language

English Submit

JOURNAL CONTENT

Search

Search Scope

All

Search

Browse

- By Issue (/kesmas/issue/archive)
- By Author (/kesmas/search/authors)
- By Title (/kesmas/search/titles)
- Other Journals (/index)

PREPARING FOR SUBMISSION

Tutorial Submit Article (/public/journals/1/KESMAS-Tutorial%20Submit%20Article.pdf)

Covering Letter and Statements (/public/site/Cover%20letter%20and%20Statements.doc)

Manuscript Template (/public/site/Manuscript Template_Kesmas_BARU.doc)

INTERNATIONAL EDITOR/REVIEWER FORM

Kalsum *et al. Kesmas: National Public Health Journal*. 2018; 13 (2): 53-59
DOI:10.21109/kesmas.v13i2.1694

Kesmas: National Public Health Journal

Pizza and Hamburger Consumption to Overweight among Adolescents in Jambi City

Konsumsi Pizza dan Hamburger terhadap Kegemukan pada Remaja di Kota Jambi

Ummi Kalsum*, Sahridayanti Nainggolan, Nawi Ng*****

***Public Health Studies Program, Faculty of Public Health, Universitas Jambi, Jambi, Indonesia, **Jambi Health Office, Jambi, Indonesia, ***Department of Public Health and Clinical Medicine UMEA University, Sweden**

Abstract

Junk food is unhealthy and poor in nutrient quality, and may result in weight gain, obesity, and coronary heart disease, if consumed regularly. The prevalence of overweight in adolescents is 5-10% higher in urban areas. Adolescents undergo lifestyle changes, including in food consumption behavior. This study aimed to determine relation between junk food consumption patterns and overweight in adolescents. This study was conducted based on a cross-sectional design. A total of 137 high school students in Jambi City were involved in this study. Patterns of junk food consumption were assessed using food frequency questionnaires that examined the eating habits of study subjects. The variables were sex, maternal education, parents's occupation, and family's socio-economic level. Analysis was conducted using the chi-square test and multiple logistic regression. Nutritional status was measured using body mass index-for-age with WHO Antro software. The results of this study indicated a 23.4% prevalence of overweight in adolescents. After controlling for maternal education, father's occupation, instant noodle eating habits, and tea, coffee and cookies consumption, final model showed that consumption of pizza and hamburgers among adolescents was the dominant determinant for overweight (OR=3.55). Consumption of pizza and hamburger was related to overweight among adolescents in Jambi City.

Keywords: Adolescent, junk food, nutritional status, overweight

Abstrak

Makanan cepat saji merupakan makanan yang tidak sehat dan buruk, yang dapat menyebabkan penambahan berat badan/obesitas, dan penyakit jantung koroner jika dikonsumsi secara teratur. Prevalensi kegemukan pada remaja meningkat 5-10%, lebih tinggi di daerah perkotaan. Remaja menjalani perubahan gaya hidup, termasuk dalam perilaku konsumsi makanan. Penelitian ini bertujuan mengetahui hubungan pola makanan cepat saji dengan kegemukan pada remaja. Penelitian dilakukan berdasarkan desain potong lintang. Sebanyak 137 siswa sekolah menengah atas di Kota Jambi dilibatkan dalam penelitian ini. Pola konsumsi makanan cepat saji dikaji menggunakan kuesioner frekuensi makanan terhadap kebiasaan makan. Variabel meliputi jenis kelamin, pendidikan ibu, pekerjaan orang tua, dan tingkat sosial ekonomi keluarga. Analisis menggunakan kai kuadrat dan regresi logistik ganda. Status gizi diukur menggunakan indeks massa tubuh menurut usia dengan perangkat lunak WHO Antro. Hasil penelitian menunjukkan prevalensi kegemukan sebesar 23,4%. Setelah dikontrol oleh pendidikan ibu, pekerjaan ayah, kebiasaan makan mie instan dan konsumsi teh, kopi, cappuccino, dan kue. Model terakhir menunjukkan bahwa konsumsi pizza dan hamburger pada remaja merupakan faktor dominan kegemukan (OR = 3,55). Konsumsi pizza dan hamburger berhubungan dengan kegemukan pada remaja di Kota Jambi.

Kata kunci: Remaja, makanan cepat saji, status gizi, gemuk

How to Cite: Kalsum U, Nainggolan S, Ng N. Pizza and hamburger consumption to overweight among adolescents in Jambi City. Kesmas: National Public Health Journal. 2018; 13 (2): 53-59. (doi:10.21109/kesmas.v13i2.1694)

***Correspondence**: Ummi Kalsum, Public Health Studies Program, Public Health Faculty, Universitas Jambi, Raya Jambi-Muara Bulian Street Km. 15 Mendalo Darat Jambi, Phone: +62741-582965, E-mail: kalzoem@gmail.com*
Received: August 29th 2017
Revised: March 26th 2018
Accepted: September 26th 2018

Hendra *et al. Kesmas: National Public Health Journal.* 2018; 13 (2): 60-64
DOI:10.21109/kesmas.v13i2.1705

Work-Related Skin Diseases among Workers in the Sewing Section at PT. X Shoe Company in West Java

Penyakit Kulit Terkait Kerja pada Pekerja Bagian Penjahitan Perusahaan Sepatu PT. X di Jawa Barat

Hendra*, Eva Nirwana, Marzuki Isahak*****

***Occupational Health and Safety Department, Faculty of Public Health, Universitas Indonesia, Depok, Indonesia, **PT. Prima Yasa Medika, Sukabumi, Indonesia, ***Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, Malaysia**

Abstract

Occupational skin diseases are the most common work-related diseases in many countries. Shoe industry workers are potential to be affected by work-related skin diseases (WRSDs). This study aimed to analyze the risk factors associated with WRSDs among workers in the sewing section at a shoe company in West Java. A total of 477 workers were examined and interviewed using the modified Nordic Occupational Skin Questionnaire-2002/LONG from May 2016 to July 2016. Chi-square test and logistic regression were used to analyze the risk factors related to WRSDs. The results showed that 57.7% of the workers suffered from WRSDs. Most of the workers (71.7%) did not wear gloves while working; however, they washed their hands adequately at work (67.1%). Multivariate analysis indicated that a term of work, allergy records, organic dust exposure and duration of exposure per day, handwashing habits, and use of gloves while working were significant to WRSDs. Having allergy records and not wearing gloves were the two dominant factors associated with WRSDs (odds ratio: 6.743 and 6.224, respectively). Understanding the importance of using chemical protective gloves while working and washing hands with running water are essential for the proper implementation of protective measures to ensure worker's safety and health.

Keywords: Allergies, gloves, sewing, shoe company, work-related diseases

Abstrak

Penyakit kulit akibat kerja merupakan penyakit terkait kerja yang paling umum di banyak negara. Pekerja industri sepatu berpotensi terkena penyakit kulit terkait kerja (PKTK). Penelitian ini bertujuan menganalisis faktor risiko yang berhubungan dengan PKTK pada pekerja bagian jahit di sebuah perusahaan sepatu di Jawa Barat. Sebanyak 477 pekerja diteliti dan diwawancarai dengan menggunakan Nordic Occupational Skin Questionnaire-2002/LONG yang dimodifikasi, dari bulan Mei 2016 sampai Juli 2016. Uji kai kuadrat dan regresi logistik digunakan untuk menganalisis faktor risiko yang terkait dengan PKTK. Hasil menunjukkan bahwa 57,7% pekerja mengalami PKTK. Sebagian besar pekerja (71.7%) tidak memakai sarung tangan saat bekerja; namun mempunyai kebiasaan cuci tangan saat bekerja (67.1%). Analisis multivariat menunjukkan bahwa masa kerja, riwayat alergi, pajanan debu organik, dan lamanya pajanan per hari, kebiasaan mencuci tangan, dan tidak memakai sarung tangan saat bekerja signifikan terhadap PKTK. Memiliki riwayat alergi dan tidak memakai sarung tangan merupakan dua faktor dominan yang berhubungan dengan PKTK (masing-masing OR: 6,743 dan 6,224). Memahami perlunya memakai sarung tangan pelindung bahan kimia saat bekerja dan mencuci tangan dengan air mengalir sangat penting untuk implementasi tindakan perlindungan yang tepat guna memastikan keselamatan dan kesehatan pekerja.

Kata kunci: Alergi, sarung tangan, jahit, perusahaan sepatu, penyakit terkait kerja

How to Cite: Hendra, Nirwana E, Isahak M. Work-related skin diseases among workers in the sewing section at PT. X shoe company in West Java. Kesmas: National Public Health Journal. 2018; 13 (2): 60-64. (doi:10.21109/kesmas. v13i2.1705)

***Correspondence**: Hendra, Department of Occupational Health and Safety, Faculty of Public Health Universitas Indonesia, Building D 1st Floor Kampus Baru UI Depok 16424, Phone: +6221-78849033, E-mail: dahen@ui.ac.id*

Received: August 29th 2017
Revised: March 22nd 2018
Accepted: September 14th 2018

Risk Factors Associated with Low Birth Weight

by M. Zen Rahfiludin

Submission date: 04-May-2021 11:45AM (UTC+0700)
Submission ID: 1577502771
File name: A12_-_Risk_factors_association_with.pdf (348.26K)
Word count: 4408
Character count: 22949

Rahfiludin *et al. Kesmas: National Public Health Journal.* 2018; 13 (2): 75-80
DOI:10.21109/kesmas.v13i2.1719

Kesmas: National Public Health Journal

Risk Factors Associated with Low Birth Weight

Faktor-faktor Risiko Bayi dengan Berat Badan Lahir Rendah

Mohammad Zen Rahfiludin*, Yudhy Dharmawan**

***Public Health Nutrition Department, Faculty of Public Health Diponegoro University, Semarang, Indonesia,**
****Biostatistics & Population Studies Department, Faculty of Public Health, Diponegoro University, Semarang, Indonesia**

Abstract

Neonatal deaths are associated with preterm birth complications. The aim of this study was to analyze risk factors associated with LBW. This was a cross-sectional study held in Bulu Primary Health Care, Temanggung, Central Java, Indonesia. The sample size required for this study was 69 based on the Slovin formula. Data were collected using questionnaires and semi-quantitative Food Frequency Questionnaire forms. Data on infant birth weight was taken from midwives' delivery cohort records. Mid upper arm circumference (MUAC), hemoglobin level, blood pressure, maternal age, parity, nutritional intake, and serum transferrin receptor data were taken from the infant's mother using a MUAC tape, automatic blood pressure monitor and blood laboratory analysis by Prodia. Data analysis processes were carried out with quantitative methods. Descriptive statistics were analyzed as means and standard deviations. Inferential statistics used the chi-square test for bivariate analysis and binary logistic regression for multivariate analysis. The results of this study showed that mean infant birth weight was 2917.68 ± 374.673 kg. Inferential analysis showed that MUAC and pregnancy at a risky age were significant risk factors associated with LBW, while serum transferrin receptor levels, anemia, parity, energy and protein consumption levels, and systolic and diastolic blood pressure were nonsignificant risk factors. The probability of LBW in pregnant women with LILA under 23.5 cm and pregnancy at a risky age was 68.9%.

Keywords: Low birth weight, risk factors, Central Java

Abstrak

Kematian neonatal terkait dengan komplikasi kelahiran prematur. Penelitian ini bertujuan menganalisis faktor risiko bayi dengan berat badan lahir rendah (BBLR). Penelitian ini merupakan penelitian potong lintang dan dilakukan di Puskesmas Bulu, Temanggung, Jawa Tengah, Indonesia. Sampel penelitian berjumlah 69 sampel berdasarkan rumus perhitungan sampel Slovin. Data dikumpulkan dengan menggunakan kuesioner dan formulir semi kuantitatif *Food Frequency Questionnaire*. Data berat lahir bayi diambil dari rekaman kohort persalinan bidan. Lingkar lengan atas (LILA), kadar hemoglobin, tekanan darah, usia ibu, paritas, asupan gizi dan data reseptor transferrin serum diambil dari ibu bayi menggunakan pita LILA, Monitor Tekanan Darah Otomatis dan analisis laboratorium darah oleh Prodia. Prosedur analisis data dilakukan dengan metode kuantitatif. Statistik deskriptif dianalisis dengan mean dan standar deviasi. Statistik inferensial menggunakan uji kai kuadrat untuk analisis bivariat dan regresi logistik biner untuk analisis multivariat. Hasil penelitian menunjukkan bahwa berat lahir bayi rata-rata 2917,68 ± 374.673 kg. Analisis inferensial menunjukkan LILA dan usia kehamilan berisiko secara signifikan sebagai faktor risiko yang menyebabkan BBLR, sedangkan reseptor serum transferin, anemia, paritas, tingkat konsumsi energi dan protein, tekanan darah sistolik dan diastolik bukanlah faktor risiko yang signifikan. Kemungkinan ibu hamil BBLR dengan LILA di bawah 23,5 cm dan kehamilan pada usia berisiko sebesar 68,9%.

Kata kunci: Berat bayi lahir rendah, faktor risiko, Jawa Tengah

How to Cite: Rahfiludin MZ, Dharmawan Y. Risk factors associated with low birth weight. Kesmas: National Public Health Journal. 2018; 13(2): 75-80 (doi:10.21109/kesmas. v13i2.1719)

***Correspondence**: Mohammad Zen Rahfiludin, Faculty of Public Health Diponegoro University, Prof. Sudharto Street, Semarang, Indonesia, Phone: +6224-7460044, E-mail: yudrahfiludin@yahoo.com*

Received: September 11th 2017
Revised: November 29th 2017
Accepted: January 04th 2018

Introduction

Child mortality is a core indicator of child health and well-being. The proposed Sustainable Development Goals target for child mortality represents a renewed commitment to the world's children under 5 years of age, with all countries aiming to reduce neonatal mortality to 12 deaths per 1000 live births or lower and under-5 mortality to 25 deaths per 1000 live births or lower. The worldwide neonatal mortality rate in 2015 was 19 deaths per 1000 live births.[1] This number shows that the worldwide neonatal mortality rate is still high. Among the top 10 countries that contribute 67% of neonatal deaths in the world, Indonesia contributes 2%.[2]

Neonatal deaths are caused by intrapartum complications and severe infections, and the leading cause of death in all regions of the world is preterm birth complications.[3] Preterm birth is also related to low birth weight (LBW). LBW is defined as a weight at birth of less than 2500 gram. Not only is LBW a major predictor of prenatal mortality and morbidity, but recent studies have found that low birth weight also increases the risk of non-communicable diseases, such as diabetes and cardiovascular disease, later in life.[4] There are multiple causes of LBW, including low income, maternal age under 20 years or over 35 years, heavy physical work, low maternal education, maternal complications (placenta previa, pregnancy-induced hypertension, premature rupture of membranes), anemia, malaria, inadequate antenatal care, and maternal nutritional factors.[5-6]

National Basic Health Research in 2013 showed that LBW occurs in Indonesia at a rate of 10.2%. In Central Java, the rate of LBW was 9.7%.[7] In Temanggung, specifically in the working area of Bulu Primary Health Care, the incidence of LBW in 2013, 2014, and 2015 was 6.9%, 7.09%, and 7.88%, respectively.[8]

The aim of this study was to analyze risk factors of LBW, including mid upper arm circumference (MUAC), hemoglobin levels, blood pressure, maternal age, parity, nutritional intake, and serum transferrin receptor levels. There have been many studies on risk factors associated with LBW, but only a few studies have examined the relation between the serum transferrin receptor and LBW. The transferrin receptor is the best indicator of iron deficiency in pregnant woman. The serum level of this receptor can be measured easily by conventional techniques and presents a large distinction between iron deficiency anemia and chronic anemia disease.[9]

Method

This was a cross-sectional study held in Bulu Primary Health Care, Temanggung, Central Java, Indonesia. The study population consisted of 114 pregnant women in the second and the third trimesters. The required sample size for this study was 69 samples based on the Slovin formula.[10] A random sampling technique was applied. MUAC, maternal age, serum transferrin receptor, hemoglobin, parity, and systolic and diastolic blood pressure data were collected using a questionnaire, while energy and protein consumption data were collected using semi-quantitative food frequency questionnaire forms. MUAC was measured using a MUAC Tape accurate to 1 mm. Blood samples were taken for measurement of hemoglobin and serum transferrin receptor levels according to standard protocols in the Prodia Laboratory. Hemoglobin was measured using cyanmethemoglobin, and serum transferrin receptor was measured using the Quantikine IV D, human sTfR Immunoassay, R&D systems, Minneapolis, MN, USA.[11-12] Anemia is defined as a hemoglobin level of less than 11 gram/dl or a transferrin receptor level of more than 21 nmol/l. Data on the infant's birth weight was taken from the midwives in Bulu Primary Health Care, by copying the infant's weight recorded by the midwives in a baby cohort. The data were collected a week after delivery. Data analysis procedures were carried out with quantitative methods. Descriptive statistics were analyzed by mean and standard deviation. Categorical data were analyzed by cross tabulation. Inferential statistics used the chi-square test for bivariate analysis and binary logistic regression for multivariate analysis. A significant correlation between independent and dependent variables was shown at p value = 0.05. Ethical clearance was obtained from the Commission of Ethics of Medical and Public Health Research, Faculty of Public Health, Diponegoro University (approval no. 252/EC/FKM/2016).

Results

The mean (SD) birth weight was 2917.68 (374.673) kg, and the mean age of the pregnant women was 26.71 (5.806) years; furthermore, the mean and standard deviation of each variable are presented in Table 1. The results of this study, shown in Table 2, indicated that MUAC and pregnancy at a risky age were significant risk factors causing LBW, while serum transferrin receptor, anemia, parity, energy and protein consumption levels, and systolic and diastolic blood pressure were nonsignificant risk factors.

Multivariate analysis with multiple logistic regression showed a significance of 0.905 for the Hosmer and Lemeshow Test, indicating an acceptable goodness of fit to the model tested. A Nagelkerke R Square of 0.328 showed that risky age and MUAC variable models are risk factors for LBW at 32.8%. The values of B and the exponential B, along with their significance, can be seen in Table 3.

The odds ratio for maternal age was 3.7 and that of MUAC was 15.38 for the incidence of LBW. Based on the table above, Exp(B) can be used to construct a logistic

Table 1. Infant Birth Weight According to Selected Maternal Factors

Variable	Category	Birth Weight		Mean	SD
		Low	Normal		
Anemia	Anemia (<11 gr/dl)	4 (11.4%)	31 (88.6%)	10.90	1.02
	Normal (11 gr/dl)	3 (8.8%)	31 (91.2%)		
Mid upper arm circumference	Chronic Energy Deficiency (< 23.5 cm)	4 (50%)	4 (50%)	26.84	2.98
	Normal (23.5cm)	3 (4.9%)	58 (54.8%)		
Serum transferrin receptor	Iron Deficiency (21 nmol/l)	6 (12.5%)	42 (87.5%)	24.80	7.29
	Normal (<21 nmol/l)	1 (4.8%)	20 (95.2%)		
Maternal age at pregnancy	Risky Age (<19 years or >35 years)	3 (30%)	7 (70%)	26.71	5.80
	Normal Age (19-35 years)	4 (6.8%)	55 (89.9%)		
Parity	Multipara (2 live births)	5 (9.6%)	47 (90.4%)	2.14	0.93
	Primipara (1 live birth)	2 (11.8%)	15 (88.2%)		
Level of energy consumption	Less (<80%)	1 (7.7%)	12 (92.3%)	96.09	12.66
	Normal (80%)	6 (10.7%)	50 (89.3%)		
Level of protein consumption	Less (<80%)	2 (7.4%)	25 (92.6%)	90.34	26.77
	Normal (80%)	5 (11.9%)	37 (88.1%)		
Systolic blood pressure	Prehypertension (>120 mmHg)	1 (3.6%)	27 (96.4%)	114.51	12.66
	Normal (120 mmHg)	6 (14.6%)	35 (85.4%)		
Diastolic blood pressure	Prehypertension (>80 mmHg)	1 (6.7%)	14 (93.3%)	72.68	10.30
	Normal (80 mmHg)	6 (11.1%)	48 (88.9%)		

Notes:
SD = Standard Deviation

Table 2. Prevalence Risk of Maternal Factors (n = 69)

Variable	PR	95% CI		p Value
		Lower	Upper	
Anemia	1.333	0.275	6.457	0.72
Mid upper arm circumference	19.333*	3.172	117.853	0.0001*
Serum transferrin receptor	2.857	0.322	25.350	0.327
Maternal age at pregnancy	5.893*	1.806	31.698	0.025*
Parity	0.798	0.140	4.545	0.799
Level of energy consumption	0.684	0.076	6.323	0.745
Systolic blood pressure	0.216	0.025	1.903	0.135
Diastolic blood pressure	0.571	0.063	5.153	0.614

Notes:
PR = Prevalence Risk, CI = Confidence Interval, Significant < 0.05

Table 3. Variables in the Equation

Variable	B	S.E.	Wald	df	p Value	Exp(B)
Maternal Age at Pregnancy	1.312	1.010	1.687	1	0.194	3.713
MUAC	2.732	.955	8.176	1	0.004	15.358
Constant	-3.212	.662	23.531	1	0.000	0.040

Equation 1. Probability of LBW

$$\text{Probability of LBW: } \frac{1}{1 + e^{-(-3.2+1.3\,Maternal\,Age\,Pregnancy+2.7\,MUAC<23.5)}}$$

regression equation to determine the probability of occurrence of LBW if pregnancy occurred at a risky age and MUAC was <23.5 cm, as follows Equation 1.

Based on this model, if there was a mother with a risky age at pregnancy (<19 or >35 years old) and she had MUAC less than 23.5 cm, the probability of LBW was 68.2%.

Discussion

Anemia is the most common nutritional deficiency in the world. The World Health Organization has estimated that the prevalence of anemia is 51% in developing countries.[13] In Southeast Asia, anemia during pregnancy has a 48.2% prevalence, equal to 18.1 million cases. In Indonesia, the prevalence of anemia during pregnancy is 50.9%.[14] In this study, anemia in pregnant women was nonsignificant as a risk factor for having a LBW infant. Anemia in pregnant mothers associated with adverse outcomes may be related to other maternal complications, such as hemoglobinopathy, malnutrition, chronic infection, and inadequate access to prenatal care, and anemia itself may be a marker of these underlying conditions. A study by Xiong, *et al.*[15] also showed that anemia was not statistically significantly associated with infant LBW.

MUAC is another anthropometric measure used to evaluate adult nutritional status that has been found to be particularly effective in determining malnutrition in adults in developing countries.[16] This study used an MUAC measure threshold of 23.5 for pregnancy outcome, infant morbidity, and mortality.[17] The results showed that a MUAC of less than 23.5 cm increased the risk of LBW by a factor of 19. Women with MUAC less than 23.5 cm had more LBW infants than those with MUAC of 23 cm and more. A study by Assefa,[18] also showed a statistically significant association between LBW and MUAC less than 23 cm.

Serum transferrin receptor was a nonsignificant as a risk factor in LBW. Transferrin is the main iron transport protein found in the blood and plays a role in maintaining cellular iron homeostasis through regulation of cellular

iron intake. Serum transferrin receptor is largely derived from developing red blood cells. Assessment of serum transferrin receptor levels has been used to distinguish iron deficiency anemia from anemia of chronic disease because the receptors are generally unaffected by concurrent infection or inflammation.[19] The results of the present study showed that the serum transferrin receptor was not significant as risk factor in LBW. Although many studies found an association between iron deficiency and pregnancy outcomes.[20–22] A previous study by Khambalia *et al*,[23] did not detect a significant association between iron deficiency and preterm birth. the inconsistencies may have been caused by study population differences and confounders.

Maternal age affects fertility. Fertility starts to decrease at the age of 20 years and decreases rapidly after the age of 35 years. Getting pregnant at a young age is also a risk factor, as the endometrium has not yet matured, whereas the endometrium is less fertile after the age of 35 years. This will increase the likelihood of having congenital syndrome and affecting maternal and child health during pregnancy.[24] A previous study indicated that mothers at the younger and older ends of the childbearing age range are at increased risk for LBW. This study showed that maternal age increase the risk of LBW by a factor of 5. A study by Fraser,[25] found that adolescent mothers aged 13 to 17 years had a significantly higher risk (p value < 0.001) than mothers aged 20 to 24 years of delivering an infant with LBW (relative risk, 1.7; 95% CI, 1.5 to 2.0). Kartasurya,[26] also found that pregnancy at a risky age (<20 or >35 years) was also a risk factor associated with LBW (<20 or >35 years; OR = 1.95 with CI = 1.16–3.36) in Batang District, Central Java Province.

Based on the result, parity was nonsignificant as a risk factor in LBW. Parity and maternal age have been shown to increase the risk of adverse neonatal outcomes, such as intrauterine growth restriction, prematurity, and mortality.[22, 27, 28] Nulliparity may confer risk through complications during childbirth, such as obstructed labor, whereas high parity has been linked to an increased risk of hypertension, placenta previa, and uterine rupture.[29] A meta-analysis by Shah,[30] concludes that multiparity, although it is associated with reduced birth weight, is not associated with LBW or preterm birth, in which multiparity is often confounded by socioeconomic status. Higher complications in terms of birth outcome associated with multiparity are valid for communities with poor socioeconomic status, low levels of education, and inadequate access to health care.

In this study, energy consumption was found to be nonsignificant as a risk factor in LBW. It should be that deficient energy consumption or weight during pregnancy can cause impaired fetal growth and increase the risk of LBW in newborns.[31] Furthermore, LBW infants have serious health problems, such as cerebral palsy, mental retardation, and even cardiovascular disease, when they become adults.[32] In study by Karima,[33] pre-pregnancy weight, weight gain during pregnancy, maternal age, and birth order were factors affecting birth weight significantly, with pre-pregnancy weight as the dominant factor (OR = 6.643, CI: 2.3–18.8). Therefore, it is important to pay more attention to undernourished women who are planning a pregnancy.[33] Pre-pregnancy weight and maternal weight gain in the first, second, and third trimesters have a moderate power relation and positive pattern.[34]

Protein is important for fetal development because one of its roles is to form fetal cells and tissues. Protein consumption is increased during pregnancy to prevent protein deficiency and malnutrition.[35] In this study, the level of protein consumption was nonsignificant as risk factor in LBW. Even though a previous study by Ramakrishnan,[36] stated that poor nutrition is one of factors associated with LBW babies, this inconsistency may be due to the limitation of sample size in this study (n = 69) with only seven infants with LBW.

The maternal cardiovascular system undergoes progressive adaptations throughout pregnancy, including decreased vascular resistance, increased blood volume, and other metabolic changes. Systolic blood pressure (SBP) and diastolic blood pressure (DBP) decreased from the first to second trimester and then increased up to the postpartum period.[37] The causes of LBW are multifactorial, and one such factor is blood pressure. This study showed that SBP and DBP were nonsignificant as risk factors in LBW infants. A study by Walker *et al*,[38] indicated an association between blood pressure and infants with LBW. This inconsistency may be due to the inclusion of subjects with pre-hypertension, whose blood pressures were not very high (<120 mmHg for SBP and <80 mmHg for DBP).

LBW is one of the risk factors for perinatal death. LBW has a PAR value of 14.90. This means that if the focus of the intervention program is on decreasing the perinatal mortality rate by decreasing the prevalence of LBW infants, there will be a 15% reduction in the risk of perinatal death out of all live births in the population.[39] Interventions for pregnancy at a risky age and mothers with MUAC less than 23.5 cm are indispensable for reducing LBW occurrence, as confirmed in a study by Kartasurya.[26]

Conclusion

It can be concluded that MUAC and age are risk factors associated with LBW in newborns, with a probability of 68.2%. It is suggested that public education on the importance of nutrition during pregnancy be increased to increase MUAC and avoid pregnancy under the age of

19 years or above the age of 35 years to reduce the incidence of infants with LBW.

Acknowledgment

The authors would like to thank the Directorate of Research and Community Services and the Ministry of Research, Technology and Higher Education of the Republic of Indonesia, as well as the Research Institute of Diponegoro University that facilitated and funded this study.

References

1. You D, Hug L, Ejdemyr S. Level and trends in child mortality. United State of America: United Nations Children's Fund; 2015.
2. Lawn J, Cousens S, Zupan J. 4 Million neonatal deaths: When? Where? Why? Lancet Global Health. 2005; 365(9462): 891-900.
3. Oza S, Lawn JE, Hogan DR, Cousens SN. Neonatal cause-of-death estimates for the early and late neonatal periods for 194 countries: 2000–2013. 2015; 93(1): 19-28.
4. World Health Organization. WHA global nutrition targets 2025: low birth weight policy brief. Geneva: World Health Organization; 2012.
5. Pallewatta N. Study on some risk factors affecting low birth weight born at base hospital, Gampaha. Sri Lanka: Post Graduate Institute of Medicine; 1998.
6. Siza J. Risk factors associated with low birth weight of neonates among pregnant women attending a referral hospital in northern Tanzania. Tanzan Jurnal Health Research. 2008; 10: 1-8.
7. Badan Penelitian dan Pengembangan Kementerian Kesehatan Republik Indonesia. Riset kesehatan dasar 2013. Jakarta: Badan Penelitian dan Pengembangan Kementerian Kesehatan Republik Indonesia; 2013.
8. Dinas Kesehatan Kabupaten Temanggung. Rekapitulasi laporan jumlah kasus BBLR Kabupaten Temanggung tahun 2013-2015. Temanggung:Dinas Kesehatan Kabupaten Temanggung; 2015.
9. López-Sierra M, Calderón S, Gómez J, Pilleux L. Prevalence of anaemia and evaluation of transferrin receptor (sTfR) in the diagnosis of iron deficiency in the hospitalized elderly patients: anaemia clinical studies in Chile. Anemia. 2012: 6 pages. http://dx.doi.org/10.1155/2012/646201.
10. Sevilla C, Phunsalan A, Regala G, Uriarte PG. 1993. Pengantar metode penelitian. Jakarta: UI Press: 2013.
11. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL Jr, et al. The seventh report of the joint national committee on prevention, detection, evaluation, and treatment of high blood pressure: The JNC 7 report. Jama. 2003; 289(19): 2560-71.
12. Benoist BD, McLean E, Egli I. Worldwide prevalence of anaemia report: 1993–2005. Geneva: World Health Organization; 2008.
13. Kalaivani K. Prevalence & consequences of anaemia in pregnancy. 2009; 130(5): 627-33.
14. Departemen Kesehatan Republik Indonesia. Profil kesehatan Indonesia 2005. Jakarta: Departemen Kesehatan Republik Indonesia; 2006.
15. Xiong X, Buekens P, Alexander S, Demianczuk N, Wollast E. Anemia during pregnancy and birth outcome: a meta-analysis. American Journal of Perinatology. 2000; 17(3): 137-46.
16. James W, Norgan N, Mascie-Taylor G, Bistrian B, Shetty P, Ferro-Luzi A. The value of arm circumference measurements in assessing chronic energy deficiency in Third World adults. European Journal of Clinical Nutritonal. 1994; 48(12): 883-94.
17. Ariyani DE, Achadi EL, Irawati A. Validitas lingkar lengan atas mendeteksi risiko kekurangan energi kronis pada wanita Indonesia. Kesmas: National Public Health Journal. 2012; 7(2): 83-90.
18. Assefa N, Berhane Y, Worku A. Wealth status, mid upper arm circumference (MUAC) and antenatal care (ANC) are determinants for low birth weight in Kersa, Ethiopia. PLoS One. 2012;7(6):e39957. doi:10.1371/journal.pone.0039957.
19. World Health Organization. Serum transferrin receptor levels for the assessment of iron status and iron deficiency in populations. Geneva: World Health Organization; 2013.
20. Allen LH. Anemia and iron deficiency: effects on pregnancy outcome. American Journal of Clinical Nutrition. 2000; 71(5): 1280s-4s.
21. Zhou L-M, Yang W-W, Hua J-Z, Deng C-Q, Tao X, Stoltzfus RJ. Relation of hemoglobin measured at different times in pregnancy to preterm birth and low birth weight in Shanghai, China. American Journal of Epidemiology. 1998; 148(10): 998-1006.
22. Scholl T, Hediger M, Huang J, Johnson F, Smith W, Ances I. Young maternal age and parity. Influences on pregnancy outcome. Annual Epidemiology. 1992; 2(5): 565-75.
23. Khambalia AZ, Collins CE, Roberts CL, Morris JM1, Powell KL3, [illegible]evski V, et al. Iron deficiency in early pregnancy using serum ferritin and soluble transferrin receptor concentrations are associated with pregnancy and birth outcomes. European Journal of Clinical Nutrition. 2016; 70(3): 358-63.
24. Engle WA, Kominiarek MA. Late preterm infants, early term infants , and timing of elective deliveries. 2008; 35(2): 325-41. doi:10.1016/j.clp.2008.03.003.
25. Fraser A, Brockert J, Ward R. Association of young maternal age with adverse reproductive outcomes. National England Journal of Medicine. 1995; 332(17): 1113-7.
26. Kartasurya MI, Dharmawan Y, Widjanarko B, Handayani N. The prediction model for low birth weight in Batang district, central Java, Indonesia. Advance Science Letter. 2017; 23(4): 3442-4. doi:10.1166/asl.2017.9123.
27. Kiely J, Paneth N, Susser M. An assessment of the effects of maternal age and parity in different components of perinatal mortality. American Journal of Epidemiology. 1986; 123(3): 444-54.
28. Gibbs C, Wendt A, Peters S, Hogue C. The impact of early age at first childbirth on maternal and infant health. Paediatric Perinatal Epidemiology. 2012; 26(1): 259-84.
29. Lee A, Mullany L, Tielsch J, et al. Community-based stillbirth rates and risk factors in rural Sarlahi, Nepal. International Journal Gynecologyc Obstetric. 2011; 113(3): 199-204.
30. Shah PS. Parity and low birth weight and preterm birth: a systematic review and meta-analyses. Acta Obstetric Gynecologyc Scand. 2010; 89(7): 862-75.
31. Keefe CJ, Couch SC, Philipson E. Handbook Of Nutrition and Pregnancy. Maryland: Humana Press; 2008.
32. Keram A, Abdulaziz A. Low birth weight prevalence, risk factors, outcomes in primary health care setting : A cross-sectional study. Obstetric Gynecologic International Journal. 2016; 5(5): 00176. doi:10.15406/ogij.2016.05.00176.

33. Karima K, Achadi EL. Status gizi ibu dan berat badan lahir bayi. Kesmas: National Public Health Journal. 2012; 7(3): 111-9.
34. Sari M, Sudiarti T. Model prediksi berat lahir bayi berdasarkan berat badan ibu hamil. Kesmas: National Public Health Journal. 2013; 7(8): 339-43.
35. Morgan JB. Nutrition in early life. England: Wiley; 2003.
36. Ramakrishnan U. Nutrition and low birth weight: from research to practice. The American Journal of Clinical Nutrition. 2004; 79(1): 17-21.
37. Rebelo F, Farias DR, Mendes RH, Schlüssel MM, Kac G. Blood Pressure Variation Throughout Pregnancy According to Early Gestational BMI : A Brazilian Cohort. Arq Bras Cardiol. 2012; 104(4): 284-91 doi:10.5935/abc.20150007.
38. Walker BR, McConnachie A, Noon JP, Webb DJ, Watt GCM. Contribution of parental blood pressures to association between low birth weight and adult high blood pressure: cross sectional study. British Medical Journal. 1998; 316(7134): 834-7.
39. Prameswari MF. Kematian perinatal di Indonesia dan faktor yang berhubungan, tahun 1997-2003. Kesmas: National Public Health Journal. 2007; 1(4): 154-60.

Risk Factors Associated with Low Birth Weight

ORIGINALITY REPORT

19%	13%	11%	6%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	ptdocz.com Internet Source	1%
2	Submitted to Kilimanjaro Christian Medical University College Student Paper	1%
3	Xiong, X.. "Anemia during pregnancy in a Chinese population", International Journal of Gynecology and Obstetrics, 200311 Publication	1%
4	Dennis, Jeff A., and Stefanie Mollborn. "Young maternal age and low birth weight risk: An exploration of racial/ethnic disparities in the birth outcomes of mothers in the United States", The Social Science Journal, 2013. Publication	1%
5	rrh.org.au Internet Source	1%
6	Submitted to Universitas Hasanuddin Student Paper	1%
7	jpad.com.pk Internet Source	

		1 %
8	www.omicsonline.org Internet Source	1 %
9	docplayer.net Internet Source	1 %
10	David T Doku, Zulfiqar A Bhutta, Subas Neupane. "Associations of women's empowerment with neonatal, infant and under-5 mortality in low- and /middle-income countries: meta-analysis of individual participant data from 59 countries", BMJ Global Health, 2020 Publication	1 %
11	Lia Kusmita, Erlita Verdia Mutiara, Handung Nuryadi, Petrick Ariska Pratama, Awang Surya Wiguna, Ocky Karna Radjasa. "Characterization of carotenoid pigments from bacterial symbionts of soft-coral Sarcophyton sp. from North Java Sea", International Aquatic Research, 2017 Publication	1 %
12	Marthe-Lise Næss-Andresen, Åse Ruth Eggemoen, Jens Petter Berg, Ragnhild Sørum Falk, Anne Karen Jenum. "Serum ferritin, soluble transferrin receptor, and total body iron for the detection of iron deficiency in	<1 %

early pregnancy: a multiethnic population-based study with low use of iron supplements", The American Journal of Clinical Nutrition, 2019
Publication

13	mchandaids.org Internet Source	<1 %
14	www.online-journal.unja.ac.id Internet Source	<1 %
15	bmchealthservres.biomedcentral.com Internet Source	<1 %
16	www.ou.ac.lk Internet Source	<1 %
17	Submitted to American Sentinel University Student Paper	<1 %
18	Tria Astika Endah Permatasari, Fauza Rizqiya, Walliyana Kusumaningati, Inne Indraaryani Suryaalamsah, Zahrofa Hermiwahyoeni. "The effect of nutrition and reproductive health education intervention on pregnant women in reducing stunting in Indonesia: A-quasi experimental study", Research Square, 2020 Publication	<1 %
19	Submitted to Universitas Riau Student Paper	<1 %
20	ar.scribd.com	

	Internet Source	<1%
21	Abrehet Hadera Kahsay, Haftom Temesgen Abebe, Letekirstos Gebreegziabher Gebretsadik, Tesfay Hailu Tekle. "Survival and predictors of early neonatal death in neonatal intensive care unit of Mekelle general and Ayder comprehensive specialized hospitals, Northern Ethiopia, 2018: prospective cohort study", Research Square, 2019 Publication	<1%
22	Submitted to Mahidol University Student Paper	<1%
23	bmcmedinformdecismak.biomedcentral.com Internet Source	<1%
24	jurnal.unismuhpalu.ac.id Internet Source	<1%
25	open.library.ubc.ca Internet Source	<1%
26	pubmed.ncbi.nlm.nih.gov Internet Source	<1%
27	Chibwesha, Carla J., Arianna Zanolini, Marcela Smid, Bellington Vwalika, Margaret Phiri Kasaro, Mulindi Mwanahamuntu, Jeffrey S.A. Stringer, and Elizabeth M. Stringer. "Predictors and outcomes of low birth weight	<1%

	in Lusaka, Zambia", International Journal of Gynecology & Obstetrics, 2016. Publication	
28	Faiza Alam, Hamna Shahbaz, Sadori Khuwaja, Shehryar Ahmed, Syeda Sadia Fatima. "Implication of soluble transferrin receptor and ferritin ratio in gestational diabetes", International Journal of Diabetes in Developing Countries, 2017 Publication	<1 %
29	bmccardiovascdisord.biomedcentral.com Internet Source	<1 %
30	circ.ahajournals.org Internet Source	<1 %
31	es.scribd.com Internet Source	<1 %
32	intl-ije.oxfordjournals.org Internet Source	<1 %
33	www.asianjab.com Internet Source	<1 %
34	www.ndr.mw:8080 Internet Source	<1 %
35	Elizabeth M. Miller. "Iron Status and Reproduction in US Women: National Health and Nutrition Examination Survey, 1999-2006", PLoS ONE, 2014	<1 %

	Publication	
36	T. Yuniati, R.T. Dewi Judistiani, Y. Adelwin Natalia, S. Irianti et al. "First trimester maternal vitamin D, ferritin, hemoglobin level and their associations with neonatal birthweight: Result from cohort study on vitamin D status and its impact during pregnancy and childhood in Indonesia", Journal of Neonatal-Perinatal Medicine, 2020 Publication	<1 %
37	Xu Xiong. "ANEMIA DURING PREGNANCY AND BIRTH OUTCOME: A META-ANALYSIS", American Journal of Perinatology, 2000 Publication	<1 %
38	cochranelibrary-wiley.com Internet Source	<1 %
39	d-scholarship.pitt.edu Internet Source	<1 %
40	dagensdiabetes.se Internet Source	<1 %
41	ecommons.aku.edu Internet Source	<1 %
42	f1000research.com Internet Source	<1 %
43	jhs.mazums.ac.ir Internet Source	<1 %

44	kidneyfoundation.cachefly.net Internet Source	<1 %
45	repositorio-aberto.up.pt Internet Source	<1 %
46	Miriam H. Mvunta, Innocent B. Mboya, Sia E. Msuya, Beatrice John, Joseph Obure, Michael J. Mahande. "Incidence and recurrence risk of low birth weight in Northern Tanzania: A registry based study", PLOS ONE, 2019 Publication	<1 %
47	Florence Bodeau-Livinec, Michel Cot, Ghislain K. Koura, Michael J. Boivin. "Chapter 10 Assessing the Effects of Maternal Anemia on Child Development in Benin", Springer Science and Business Media LLC, 2013 Publication	<1 %
48	Karakochuk, C. D., K. C. Whitfield, S. I. Barr, Y. Lamers, A. M. Devlin, S. M. Vercauteren, H. Kroeun, A. Talukder, J. McLean, and T. J. Green. "Genetic Hemoglobin Disorders Rather Than Iron Deficiency Are a Major Predictor of Hemoglobin Concentration in Women of Reproductive Age in Rural Prey Veng, Cambodia", Journal of Nutrition, 2015. Publication	<1 %
49	Rolv Skjærven. "Parity specific perinatal mortality. A longitudinal study based on	<1 %

sibships", Paediatric and Perinatal Epidemiology, 10/1987

Publication

Exclude quotes	Off	Exclude matches	Off
Exclude bibliography	On		