Effect of consumtion red guava juice to increase hemoglobin levels in pregnant women

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A B S T R A C T

One of the indicators based on the sustainable development goals (Sustainable Development Goals / SDGs 2030), is to support welfare and ensure a healthy life for all at all ages with the most important points being to reduce the maternal mortality rate to less than 70 per 100,000 live births and prevent maternal mortality. The death rate for newborns and toddlers is at least 12 per 1000 live births and 25 per 1000 live births for children under five. A study was conducted to determine the effect of giving red guava juice on changes in hemoglobin levels in pregnant women at Praktik Bidan Boloni Tanaka Medan Johor in 2022. In this study the sample used was all pregnant women from March to May as many as 2022 as many as 12 people. . The research showed that in the intervention group before giving red guava juice the majority of moderate anemia with a frequency of 8 respondents (66.7%) and a normal minority with a frequency of 1 respondent (8.3%). Meanwhile, after giving red guava juice the majority were normal with a frequency of 7 respondents (53.8%) and a minority of moderate anemia was 1 respondent (8.3%). The results of the analysis test in this study using Mann Whithney showed a P-Value of 0.022 (P <0.05), namely the effect of giving red guava juice to increase hemoglobin in pregnant women. Pregnant women, especially pregnant women who experience anemia, are expected to regularly consume red guava juice because if consumed properly, red guava juice has many benefits, especially for pregnant women so that it can meet the nutritional needs needed by the body and can maximize absorption of substances iron.

A B S T R A K

Salah satu indikator berdasarkan tujuan pembangunan berkelanjutan (Sustainable Development Goals/SDGs 2030), adalah mendukung kesejahteraan dan menjamin kehidupan yang sehat bagi semua orang di segala usia dengan poin terpenting adalah menurunkan angka kematian ibu menjadi kurang dari 70 per 100.000 kelahiran hidup dan mencegah kematian ibu. Angka kematian bayi baru lahir dan balita minimal 12 per 1000 kelahiran hidup dan 25 per 1000 kelahiran hidup untuk anak balita. Telah dilakukan penelitian untuk mengetahui pengaruh pemberian jus jambu biji merah terhadap perubahan kadar hemoglobin pada ibu hamil di Praktik Bidan Boloni Tanaka Medan Johor tahun 2022. Pada penelitian ini sampel yang digunakan adalah seluruh ibu hamil bulan Maret sampai Mei sebanyak 2022 sebanyak sebanyak 12 orang. . Hasil penelitian menunjukkan bahwa pada kelompok intervensi sebelum pemberian jus jambu biji merah mayoritas anemia sedang dengan frekuensi 8 responden (66,7%) dan minoritas normal dengan frekuensi 1 responden (8,3%). Sedangkan setelah pemberian jus jambu biji merah mayoritas normal dengan frekuensi sebanyak 7 responden (53,8%) dan minoritas anemia sedang sebanyak 1 responden (8,3%). Hasil uji analisis pada penelitian ini dengan menggunakan Mann Whithney menunjukkan P-Value sebesar 0,022 (P<0,05) yaitu pengaruh pemberian jus jambu biji merah terhadap peningkatan hemoglobin pada ibu hamil. Ibu hamil khususnya ibu hamil yang mengalami anemia diharapkan untuk rutin mengkonsumsi jus jambu biji merah karena jika dikonsumsi dengan benar, jus jambu biji merah memiliki

banyak manfaat terutama bagi ibu hamil sehingga dapat memenuhi kebutuhan nutrisi yang dibutuhkan tubuh dan dapat memaksimalkan penyerapan. dari zat besi.

INTRODUCTION

One of the indicators based on the sustainable development goals (Sustainable Development Goals / SDGs 2030), is to support welfare and ensure a healthy life for all at all ages with the most important points being to reduce the maternal mortality rate to less than 70 per 100,000 live births and prevent maternal mortality. The death rate for newborns and toddlers is at least 12 per 1000 live births and 25 per 1000 live births for children under five. (WHO, 2016)

In 2015, the Maternal Mortality Rate (MMR) decreased to 305 per 100,000 live births. Compared to 2012 the maternal mortality rate reached 359 per 100,000 live births. This shows that the Maternal Mortality Rate in 2012 was higher than in 2012. Meanwhile, in 2018 the Neonatal Mortality Rate was 15 per 1000 live births. Approximately 75% of the causes of maternal death are caused by postpartum hemorrhage or bleeding, infection, preeclampsia / eclampsia, prolonged / obstructed labor, and abortion. The causes of neonatal death are premature, birth defects, infections, and complications during delivery. (Kuswanti, 2014)

The way that can be done to prevent death and detect early complications in pregnant women is to increase ante natal care. This is one way to reduce maternal mortality. Ante Natal Care (ANC) is an effort made for prevention in obstetric health care programs that aim to maximize maternal and neonatal outcomes by conducting regular monitoring during pregnancy. ANC provides a platform that aims to screen and diagnose and prevent disease. In addition, ANC also provides opportunities to communicate and support women, families and communities in the journey of women's lives. utilization of health and quality of care, improving lives, and saving lives are functions of ANC communication and support.

Midwives are one of the health workers in reducing maternal mortality and infant mortality by providing sustainable midwifery services, promotion with partnerships and empowering the community with other health workers.

METHOD

This research plan uses an experimental research type. The research design used to find causal relationships with the involvement of research in manipulating independent variables is called experimental research.

This study used a pre-experimental one group pretest-posttest design. By revealing causal relationships by involving a group of subjects is a characteristic of this type of research. Before the intervention was carried out, the subject group was observed first and then after the intervention was given, it was observed later. (Nursalam, 2016). So knowing the effect of giving red guava juice to increase hemoglobin levels in pregnant women at Praktik Bidan Boloni Tanaka Medan Johor in 2022.

In this study, the population used were all pregnant women in Praktik Bidan Boloni Tanaka Medan Johor from March to May as many as 12 people in 2022.

Data testing in this bivariate analysis was carried out using the Man-Whitney statistical test, with a significant level of 95% (α = 0.05). The purpose of the bivariate analysis in this study was to prove whether there was an effect of giving red guava juice on increasing hemoglobin levels in pregnant women at Praktik Bidan Boloni Tanaka Medan Johor in 2022.

RESULTS AND DISCUSSION

Table of Frequency Distribution of Increased Hemoglobin Levels in the Control Group

Kelompok Kontrol	Normal		Anemia Ringan		Anemia Sedang		Anemia Berat	
	F	%	F	%	F	%	F	%
Sebelum	1	8,3	7	58,3	4	33,3	-	-
Setelah	1	8,3	9	75	2	16,7	-	-

The table above shows that in the control group before giving Fe tablets, the majority were mild anemia with a frequency of 7 respondents (58.3%) and the minority was normal anemia (not anemic) with a frequency of 1 respondent (8.3%). Meanwhile, after administration of Fe tablets, the majority were mild anemia with a frequency of 9 respondents (75%) and a normal minority (not anemic) was 1 respondent (8.3%).

Table of Frequency Distribution of Increased Hemoglobin Levels in the Intervention Group

Kelompok Intervensi	Normal		Anemia Ringan		Anemia Sedang		Anemia Berat	
	F	%	F	%	F	%	F	%
Sebelum	1	8,3	8	66,7	3	25	-	-
Setelah	7	58,3	4	33,3	1	8,3	-	-

The table above shows that in the intervention group before giving red guava juice the majority of moderate anemia with a frequency of 8 respondents (66.7%) and a normal minority with a frequency of 1 respondent (8.3%). Meanwhile,

after giving red guava juice the majority were normal with a frequency of 7 respondents (53.8%) and a minority of moderate anemia was 1 respondent (8.3%). This analysis aims to see the effect of giving red guava juice to increase hemoglobin levels in pregnant women using statistical methods. The results of the data processing are as follows:

Effect of giving red guava juice to increase hemoglobin in pregnant women TM II

Kelompok	Mean	Std. Deviation	P Value
Kontrol	1,08	0,55	0,022
Intervensi	0,50	0,67	

Based on the table above, it can be seen that the results of the analysis test in this study using Mann Whithney showed a P-Value of 0.022 (P <0.05), namely the effect of giving red guava juice to increase hemoglobin in pregnant women with TM II.

CONCLUSIONS AND SUGGESTIONS

1. Frequency distribution of the control group before administration of Fe tablets, the majority of which were mild anemia with a frequency of 7 respondents (58.3%) and a minority of normal anemia (not anemic) with a frequency of 1 respondent (8.3%). Meanwhile, after administration of Fe tablets, the majority were mild anemia with a frequency of 9 respondents (75%) and a normal minority (not anemic) was 1 respondent (8.3%).
2. Frequency distribution in the intervention group before administration of Fe tablets and guava juice, the majority of moderate anemia with a frequency of 8 respondents (66.7%) and normal minority with a frequency of 1 respondent (8.3%). Meanwhile, after administration of Fe tablets and guava juice the majority were normal with a frequency of 7 respondents (53.8%) and a minority of moderate anemia was 1 respondent (8.3%).
3. The results of the bivariate analysis using Mann Whithney showed a P-Value of 0.022 (P<0.05) then Ho was rejected, which means that there was a significant effect of giving red guava juice to increase hemoglobin in pregnant women with TM II.

Pregnant women, especially pregnant women who experience anemia, are expected to regularly consume red guava juice because if consumed properly, red guava juice has many benefits, especially for pregnant women and red guava juice has no side effects on the fetus and mother so it can meet the nutritional needs needed by the body and can maximize iron absorption.

ETHICAL CONSIDERATIONS

Funding Statement

Conflict of Interest Statement

No potential conflicts of interest have been reported regarding the submitted articles

REFERENCES

Almatsier,S. 2009. Prinsip Dasar Ilmu Gizi. Jakarta: PT. Gramedia Pustaka.

Badan Pusat Statistik. 2018. Survei Penduduk Antar Sensus (SUPAS).

Badriah,D. 2011. Gizi Dalam Kesehatan Reproduksi. Bandung: Refika Aditama

Faatih, M., et al. 2017. Penggunaan Alat ukur Hemoglobin di Puskesmas, Polindes, dan Pustu. Jurnal Penelitian dan Pengembangan Pelayanan Kesehatan.

Goodman. 2008. Dasar Farmakologi Terapi. Jakarta: ECG.

Hutahaean, S . 2013. Perawatan Antenatal. Jakarta: Salemba Medika.

Kementerian Kesehatan RI. 2015. Profil Kesehatan Indonesia 2015. Jakarta: Kementerian Kesehatan RI.

Kusmiyati. Y. 2010. Asuhan Kehamilan. Yogyakarta: Tirtamaya.

Kuswanti, I. 2014. Asuhan Kehamilan. Yogyakarta: Pustaka Pelajar.

Manuaba. 2012. Ilmu kebidanan, Penyakit Kandungan, dan Keluarga Berencana. Jakarta: EGC.

Maternal dan Neonatal. Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo.

Marmi. 2011. Asuhan Kebidanan Pada Natal. Masa Ant. Yogyakarta: Pustaka Pelajar.

Maylina, L.A. 2010. Hubungan Antara Konsumsi Pangan Sumber Protein, Zat Besi dan Vitamin C Dengan Kejadian Anemia Siswa Sekolah Dasar. Skripsi. Universitas Jember.

MIMS Indonesia.Petunjuk Konsultasi, Edisi 15. Jakarta: PT. Mediata Indonesia.

Prambudi, Ghaniy. 2019. Perbedaan Hemoglobin Dengan Metode Point Of Care Testing Dan Cyanmethemoglobin. Tugas Akhir.

Prawirohardjo, S. 2014. Ilmu Kebidanan Ed.4 Cet.3. Jakarta: EGC.

Proverawati. 2011. Anemia Dalam Kehamilan. Yogyakarta: Nuha Medika.

Riset Kesehatan Dasar (Riskesdas). 2018. Badan Penelitian dan Pengembangan Kesehatan Kementerian Kesehatan RI.

Saifuddin. 2009. Buku Panduan Praktis Pelayanan Kesehatan

Soebroto, I. 2010. Cara Mudah Mengatasi Problem Anemia. Yogyakarta : Bangkit.

Sukarni, I, et al. 2013. Kehamilan, Persalinan, dan Nifas. Yogyakarta: Nuha Medika

Sulistianingsih,A., Yanti, D.A.M., Oktarina, L. 2017. Hubungan Ketepatan Waktu Konsumsi Tablet Besi Dengan Kejadian Anemia Pada Ibu Hamil TM III Di Wilayah Kerja Puskesmas Pringsewu Lampung. Viva Medika Volume 10.

Varney, H. *et al.* 2015. *Buku Ajar Asuhan Kebidanan Edisi 4 Volume 2.* Jakarta: EGC.

Waryana. 2010. Gizi Reproduksi. Yogyakarta: Pustaka Rahima.

_____. 2016. *WHO Recommendation on AnteNatal Care For a Positive Pregnancy Experience.* Switzerland : Department Of Reproductive Health And Research, World Health Organization.