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The Incidence of Anemia was Examined based on Pregnant Women's Nutritional Status and Physical Activity

Irene Santy Ayu Nona Lamuri
Puskesmas Nagi, Flores Timur Larantuka
Email: irenesanty@gmail.com

ABSTRACT

Pregnant women frequently experience the following issues of lethargy, exhaustion, shortness of breath during activities, pale face and skin, dizziness, and fainting. This results from pregnant women not eating enough nutrient-dense foods, which impairs their nutritional status and raises the risk of anemia. The purpose of this literature review is to examine how physical activity and nutritional status relate to the prevalence of anemia in expectant mothers. A literature review is the research methodology employed. The PICOS framework is employed in the article search technique. The databases used are Pubmed Central (PMC), Science Direct, and Google Scholar, and they cover publications from 2015 to 2022. The terms "anemia" are employed.

Keywords: anemia, nutritional status, physical activity, pregnant women

BACKGROUND

Pregnant women's anemia is still a national issue since it has a significant impact on the caliber of human resources and reflects the socioeconomic well-being of society. Pregnant women frequently experience the following issues: lethargy, exhaustion, shortness of breath during activities, pale skin and facial surfaces, dizziness, and fainting easily (Wasnidar, 2020). This results from pregnant women not eating enough nutrient-dense foods, which impairs their nutritional status and raises the risk of anemia (Febriana, 2019). Aside from that, anemia is also brought on by too close spacing between pregnancies because the family cannot meet the dietary requirements for pregnant women that include enough nourishment.

According to the World Health Organization (WHO) (2021), 41.8% of pregnant women worldwide suffer from anemia. According to estimates, the prevalence of anemia in pregnant women is 25.1% in Europe, 48.2% in Asia, 57.1% in Africa, and 24.1% in America. According to Basic Health Research (Riskesdas) (2021), 37.1% of pregnant Indonesian women suffer from anemia. In 2021, 85% of Indonesia will have access to Fe tablets. This proportion is higher than the 83.3% recorded in 2020. The incidence of anemia is still high despite the government's implementation of a program to treat the condition, which involves giving pregnant women 90 Fe tablets during the pregnancy period in an effort to lower the rate of anemia in pregnant women.

Factors that influence the incidence of anemia in pregnant women include physical activity and nutritional status of pregnant women. Gallagbar (2019), said that physical activity is one of the factors that determines the nutritional status of pregnant women. Physical activity that can affect hemoglobin levels is heavy physical activity. Physical activity that is too heavy can cause hematuria, hemolysis and gastrointestinal bleeding which can affect iron status. Physical activity causes energy expenditure which is important for the maintenance of physical, mental and healthy life. Physical activity level is a category of physical activity

based on the amount of energy expended for a type of activity per unit time in 24 hours. Margawati (2018) states that physical activity carried out every day is related to energy use which causes changes in nutritional status over a relatively long period of time. This is because the level of heavy physical activity will increase the need for food, as well as the long period of activity and the dual role of pregnant women causing the mother's vulnerability to malnutrition, especially during pregnancy.

The incidence of anemia is influenced by a pregnant woman's dietary status in addition to her level of physical activity. The growth of the fetus a woman is carrying can be impacted by her nutritional state both before and throughout her pregnancy. A healthy, full-term baby with a normal weight is likely to be born if the mother's nutritional status is normal both before and during pregnancy. In other words, the mother's nutritional health both before and throughout pregnancy has a significant impact on the quality of the kid that is born. Pregnant women's health during pregnancy and socioeconomic circumstances can have an impact on their nutritional status. Malnutrition during pregnancy increases the chance of abortion, stillbirth, low birth weight kids, and mental retardation, among other complications.

Pregnant women must actively engage in nutritional education offered by health professionals through counseling in order to gain information and understanding about preventing pregnancy anemia. This is the solution to the aforementioned issue. In addition, pregnant women should obtain information about preventing anemia in pregnancy from a variety of sources, including the internet, print media, other pregnant women, and medical professionals. In addition, health professionals can provide Fe tablets and other vitamins to expectant mothers by routinely checking their pregnancy at least four times. Eat wholesome meals three times a day in twice as large portions, get adequate sleep, keep yourself clean at all times, exercise, and eat a wider variety of foods.

METHODS

The PICOS framework is employed in the article search technique. Google Scholar and Pubmed Central (PMC) are the databases that are utilized. The databases that are utilized are Pubmed Central (PMC), Science Direct, and Google Scholar. The terms "anemia," "nutritional status," "physical activity," and "pregnant women" are utilized. Eight journals were reviewed. Pregnant women met the inclusion criteria for this review of the literature. The study's exclusion criteria were: English-language publications; an improper title; a year (less than five years ago); the inability to access the literature for free; the use of abstracts or full texts; the fact that the sample was not a baby; and the literature being a review of theories, opinions, articles, and literature reviews.

According to the findings of a literature search conducted using the Google Scholar database and the keywords (Anemia) AND (Nutritional Status) AND (Physical Activity) AND (Pregnant Women), relevant articles were found in 15,000 journals while PubMed Central (PMC) found 3,823 related articles using the keywords (Anemia) AND (Nutritional Status) AND (Physical Activity) AND (Pregnant Mother). There were 18,824 publications in the literature found using Pubmed Central, Science Direct, and Google Scholar. 6,768 articles were identified by their names, while 5,978 journals published works that did not match the titles, were published during the last five years, could not be accessed without payment, and were only available in abstract or full text form. After that, the full-text articles.

RESULTS

The state of pregnant women's nutrition

Pregnant women are recognized to have a decent nutritional status based on the findings of the literature review. This demonstrates that the respondents' generally superior nutritional health can be attributed to the mother's primarily high school and college education. This

demonstrates the mother's high degree of education. Well-educated pregnant women are highly motivated and driven to achieve their dietary needs. Many people have rejected the social notion that pregnant women should follow any dietary restrictions, allowing them to eat anything they want. Most moms work as housewives, and most of them are between the ages of 20 and 35.

Status gizi is the level of success in a child's nutritional diet. Status gizi is also defined as a state of health that results from the balance between needs and nutrients. Gizi ibu hamil is a healthy, balanced food that should be consumed throughout life. Numerous factors, including economic position, knowledge of gizi zat in food, health status, activities, environmental conditions, berat badan, umur, kebiasaan, and wanita attitudes about food, affect a person's gizi status (Supriasa, 2019). Status gizi refers to the balance between the number of gizi intakes and the number of gizi requirements that the body needs as biological functions (physical growth, growth, activity, health care, and so on) (Suyanto, 2019). Ibu hamil beresiko KEK if the LILA measurement is less than 23.5 cm or is a pita merah LILA, and gizi baik if the LILA measurement is greater than 23.5 cm.

According to Maryam (2016), pregnant women's eating habits and attitudes are the primary determinants of their nutritional health. Mothers who have children or are pregnant typically focus more on their family members' diets. The second aspect is age; pregnant women are too young (less than 20 years old) and require more nutrients the younger they are since the mother is still growing, and the older the mother, the more energy she needs. A person with a high economic standing is likely to have sufficient dietary needs, making economic status the third component. Food and nutrition expertise is the fourth component. Expectant mothers who are knowledgeable about diet will offer.

According to the researcher, maintaining a diet that is relevant to the nutritional state of pregnant women and controlling body weight before pregnancy are crucial for a safe delivery and a healthy kid. More information regarding pregnant anemia prevention, treatment, and prevention is given by health professionals. In addition, health professionals need to keep a close eye on pregnant women's nutritional progress and document it in detail. They also need to educate pregnant women on the value of family support, particularly from spouses.

DISCUSSION

Exercise for Expectant Mothers

Pregnant women are known to engage in light physical activity, according to the findings of the literature research. This demonstrates how a decrease in physical activity lowers the body's cell metabolism, which in turn lowers the body's iron metabolism. A decrease in iron production will have an effect on the creation of hemoglobin (Hb), which in turn will have an effect on the reduction of oxygen delivery to all body cells. As a result, physical activity is adapted to a person's energy requirements. Physical activity is one of the factors that affects nutritional status, according to research by Ingrid (2019), since a person's nutritional status also depends on the use.

One of the things that affects pregnant women's nutritional health is physical exercise. Heavy physical exercise might have an impact on hemoglobin levels. Excessive physical activity can impact iron status by causing hematuria, hemolysis, and gastrointestinal bleeding. Energy expenditure from physical activity is crucial for maintaining a healthy, mental, and physical existence. The quantity of energy used for a particular activity per unit of time over a 24-hour period determines the physical activity level (Gallagbar, 2019).

Researchers believe that pregnant women who are not physically active will have a slower rate of energy conversion because their bodies will burn less incoming energy. The body retains extra fat and the metabolism slows down in pregnant women who don't exercise. This explains why people who eat a lot but don't exercise much have a tendency to put on weight

quickly. In addition, pregnant women can engage in physical activities like pregnancy exercises, taking a leisurely walk, or even sweeping the yard, but they should also exercise caution and refrain from doing strenuous activities like carrying large weights. Because iron deficiency is caused by excessive exertion and lack of relaxation while working.

Pregnant women should be monitored for anemia since it can lead to morbidity and mortality, specifically maternal death from difficulties during pregnancy, childbirth, or the postpartum period. In addition, anemia during pregnancy may have an impact on the fetus's or baby's growth and development. If a pregnant woman's hemoglobin (Hb) level is less than 11 mg/L, she is considered anemic (Ministry of Health, 2021). A mother is said to have pregnancy anemia if her hemoglobin levels are less than 11 g% in the first and third trimesters or less than 10.5 g% in the second (Saifudin, 2008). Manuaba (2010) states that iron deficiency causes pregnant anemia, which is a form of anemia that is reasonably simple and even inexpensive to treat.

Physical activity and nutritional condition in relation to the prevalence of anemia in expectant mothers

According to the findings of the literature research, the incidence of anemia in pregnant women is known to be correlated with both physical activity and nutritional condition. Pregnant women's dietary status and physical activity levels are two factors that affect the prevalence of anemia in this population. Physical activity is one of the characteristics that impacts pregnant women's nutritional condition, according to Gallagbar (2019). Heavy physical exercise might have an impact on hemoglobin levels. Excessive physical activity can impact iron status by causing hematuria, hemolysis, and gastrointestinal bleeding. Energy expenditure from physical activity is crucial for maintaining physical.

Pregnant women must actively engage in nutritional education offered by health professionals through counseling in order to gain information and understanding about preventing pregnancy anemia. This is the solution to the aforementioned issue. In addition, pregnant women should obtain information about preventing anemia in pregnancy from a variety of sources, including the internet, print media, other pregnant women, and medical professionals. In addition, health professionals can provide Fe tablets and other vitamins to expectant mothers by routinely checking their pregnancy at least four times. Eat wholesome meals three times a day in twice as large portions, get adequate sleep, keep yourself clean at all times, exercise, and eat a wider variety of foods.

CONCLUSION

Pregnant women are recognized to have a decent nutritional status based on the findings of the literature review. Pregnant women are known to engage in light physical activity, according to the findings of the literature research. The literature review's findings indicate that pregnant women's anemia incidence falls into the "no anemia" category. According to the findings of the literature research, the incidence of anemia in pregnant women is known to be correlated with both physical activity and nutritional condition. Pregnant women are advised to obtain a variety of information about preventing anemia during pregnancy, including from print media, and the internet.

REFERENCES

Andrea L. (2018). Physical Activity During Pregnancy and Risk of Hyperglycemia. Jurnal Kesehatan Wanita.

Anik Nuridayanti, (2015). Hubungan Status Gizi Dengan Kejadian Anemia Pada Ibu Hamil Di Puskesmas Gurah Kabupaten Kediri. Jurnal Kesehatan Ibu Dan Anak, Vol. 1, No. 1, Agustus 2015:71–83.

Asmadi, (2021). Aktifitas Fisik, Teknik Prosedural Keperawatan : Konsep dan Aplikasi

Kebutuhan Dasar Klien. Jakarta: Salemba Medika.
BPS Provinsi Jawa Timur (BPS), (2022). Prevelensi Anemia Defesiensi Zat Besi Pada Ibu Hamil. BPS, Provinsi Jawa Timur.
Deierlein A. L, (2019). Physical activity during pregnancy and risk of hyperglycemia. Journal Womens Health (Larchmt).21(7):769–75.
DepKes RI. (2021). Profil Kesehatan Indonesia : Menuju Indonesia Sehat 2020. Jakarta : Departemen Kesehatan RI.
Deprika CE. (2020). Faktor-Faktor Yang Berhubungan Dengan Kejadian Anemia Pada Ibu Hamil Di Puskesmas Mantrijeron Yogyakarta. Universitas Aisyiyah Yogyakarta; 2020.
Dhini Anggraini Dhilon, Pena Sundari, Riani, (2019). Hubungan Status Ekonomi Dan Status Gizi Dengan Kejadian Anemia Pada Ibu Hamil Di Wilayah Kerja Puskesmas Siak Hulu III Tahun 2019. Jurnal Doppler Universitas Pahlawan Tuanku Tambusai, Vol 3 No 2 Tahun 2019 ISSN 2580-3123.
Esri Adela Br Sitepu, (2018). Hubungan Status Gizi Ibu Hamil Trimester III Dengan Anemia Di klinik Pratama Mariana Medan Tahun 2018. Naskah Publikasi Program Studi D4 Kebidanan Fakultas Farmasi Dan Kesehatan Institut Kesehatan Helvetia Medan.
Evodia Lusia Meo Thena, (2017). Hubungan Dukungan Suami Dan Status Gizi Dengan Kejadian Anemia Pada Ibu Hamil Di Wilayah Kerja Puskesmas Ladja Kabupaten Ngada NTT. Naskah Publikasi Program Studi Pendidikan Ners Fakultas Keperawatan Universitas Airlangga Surabaya.
Febriana, S. (2019). Faktor-Faktor Yang Berhubungan Dengan Kejadian Anemia Pada Ibu Hamil Di Puskesmas Gandus Palembang.
IPAQ Research Commitee. (2020). Guidelines for data processing and analysis of the International Physical Activity Questionnaire (IPAQ)-short and long forms. Http://www.ipaq.ki.se/scoring.pdf.
Kementrian Kesehatan Republik Indonesia, (2021). Direktorat Gizi Masyarakat, Direktorat Jendral Kesehatan Masyarakat. Buku Saku Pemantauan Status Gizi.
Mahanani, (2020). Aktifitas Fisik Berdasarkan Teori Handerson Pada Pasien Diabetes Mellitus Laki- laki Dan Perempuan. STIKES RS Baptis Kediri.
Mandriawati, (2017). Penuntun Belajar Asuhan Kebidanan Ibu Hamil. Jakarta: EGC. Manuaba. Ilmu kebidanan. Jakarta: EGC.
Nonita Sari, Agus Purnama, (2019). Aktivitas Fisik Dan Hubungannya Dengan Kejadian Diabetes Melitus. Window of Health : Jurnal Kesehatan, Vol. 2 No. 4 (Oktober, 2019) : 368-381 E-ISSN 2614-5375.
Nurcahyo, F. (2019). Kaitan Antara Obesitas Dan Aktivitas Fisik. Jurnal Ilmiah Kesehatan Olahraga. Vol. VII, No. 1 : 87-96.
Nursiti Muttaalliyah, (2018). Hubungan Status Gizi Ibu Hamil Trimester III Dengan Kejadian Anemia Dipuskesmas Cikancung Tahun 2018. Naskah Publikasi Sekolah Tinggi Ilmu Kesehatan Bhakti Kencana Program Studi D-III Kebidanan Bandung.
Nursyahid Siregar, Azhari, Nursari Abdul Syukur, (2018). Hubungan Status Gizi Dengan Kejadian Anemia Pada Ibu Hamil Trimester III Di Klinik Aminah Amin Samarinda Tahun 2018. Jurnal Husada Mahakam Volume IV No. 8 Mei 2019, Hal 492-504.
Pantiawati, Ika. dan Saryono. (2017). Asuhan Kebidanan 1 Kehamilan. Nuha Medika. Yogyakarta. Potter & Perry, 2019. Buku Ajar Fundamental Keperawatan : Konsep, Proses, dan Praktik. Edisi 4.Volume 2. Alih Bahasa : Renata Komalasari, dkk. Jakarta:EGC.
Prawiroharjo, Sarwono. (2017). Ilmu kebidanan. (Edisi IV). Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo.

Price, A. S., & Wilson, L. M. (2017). Patofisiologi : Konsep Klinis Proses-Proses Penyakit (Vol. 2). Jakarta: EGC.

Proverawati, A. (2020). Anemia dan Anemia kehamilan. Cetakan II. Yogyakarta: Nuha Medika. Resy Haryanti, Vella Yovinna T, Agnita Utami. Hubungan Aktivitas Fisik Dengan Status Gizi Pada Ibu Hamil. JMH, Jurnal Medika Hutama Vol 02 No 02, Januari 2021, http://jurnalmedikahutama.com, e-ISSN. 2715-9728, p-ISSN. 2715-8039.

Rumaisha Yasmine; Darmawati, Aida Fitri, (2020). Pengetahuan Ibu Hamil Tentang Pencegahan Anemia Dengan Motion Video Education (MVE). JIM FKep Volume IV No. 3. 2020.

Safitri, (2020). Pendidikan Kesehatan tentang Anemia kepada Ibu Hamil. Jurnal Abdimas Kesehatan (JAK) Vol 2, No. 2, Juni 2020, DOI : 10.36565/jak.v2i2.88 p-ISSN :2655-9226, e-ISSN: 2655-9218.

Saifuddin dkk, Abdul Bari. (2017). Buku Panduan Praktis Pelayanan Kesehatan Maternal Neonatal. Jakarta: Yayasan Bina Pustaka Sarwono Prawirohardjo.

Salmah, Rusmiati. Maryanah. dan Susanti. (2018). Asuhan Kebidanan Antenatal. EGC. Jakarta. Santoso, S dan Ranti, L.A. 2020. Kesehatan dan Gizi. PT Rineka Cipta: Jakarta.

Sari Saraswati Purba, Roslinda Hutagaol, (2022). Hubungan Pola Makan Dan Aktivitas Fisik Ibu Hamil Terhadap Kejadian Anemia Di Wilayah Kerja Puskesmas Langsa Lama. Public Health Journal, Vol 8 No. 2, April 2022, ISSN: 2406-8861.e-ISSN: 2654-7171.

Sudoyo AW, Setiyohadi B, Alwi I, Simadibrata M, Setiati S. (2019). Buku Ajar Ilmu Penyakit Dalam. Edisi 5. Jakarta: Internal.

Suhardjo, (2020). Berbagai Cara Pendidikan Gizi. Jakarta : Bumi Aksara.

Sukmawati, Lilis Mamuroh, Furkon Nurhakim, (2019). Pengaruh Edukasi Pencegahan dan Penanganan Anemia Terhadap Pengeahuan dan Sikap Ibu Hamil. Jurnal Keperawatan BSI, Vol. VII No. 1 April 2019.

Sulistyawati, Ari. (2017). Asuhan Kebidanan Pada Masa Kehamilan. Salemba Medika. Jakarta. Supriasa, 2017. Klasifikasi status gizi. Jakarta: Salemba Medika.

Tobias D.K., SM. (2019). Physical Activity Before and During Pregnancy and Risk of Gestational Diabetes Mellitus. 2019. Diabetes Care 34:223–22.

Wasnidar, (2020). Buku Saku Anemia Pada Ibu Hamil, Konsep Dan Penatalaksanaan. Jakarta. EGC. Winkjosastro, 2017. Ilmu Bedah Kebidanan. Jakarta : Yayasan Bina Pustaka Sarwono Prawirohardjo.