ORIGINAL ARTICLE
International Journal of Biomedical Nursing Review 2025, Volume 4, Number 2: 27-35
P-ISSN: 2963-1556, E-ISSN: 2962-4703

THE UTILIZATION OF DRAGON FRUIT (HYLOCEREUS POLYRHIZUS) AND DIETARY COMBINATION TO PREVENT IRON DEFICIENCY ANAEMIA IN ADOLESCENCE GIRLS: LITERATURE REVIEW

Kinantika Nur Dewanti[1]*, Annisa Febriana[2]
[1]Department of Nursing, Faculty of Health Sciences, Jenderal Soedirman University, Purwokerto
[2]Department of Nursing, Faculty of Medicines and Health Sciences, Lambung Mangkurat University, Banjarmasin

*Correspondence Author :
Kinantika Nur Dewanti; Department of Nursing, Faculty of Health Sciences, Jenderal Soedirman University, Purwokerto.
kinantika.dewanti@unsoed.ac.id

Received: 22-11-2024
Approved: 20-02-2025
Published: 20-04-2025

ABSTRACT

Introduction: Dragon fruit (Hylocereus polyrhizus) is a fruit rich in iron, which is beneficial for adolescent health, including preventing iron deficiency anemia. Dragon fruit can be consumed directly or combined with other foods. However, fruit and vegetable consumption among adolescents remains low. Even though dragon fruit is a fruit that is easy to reach and rich in iron. This may be due to a lack of awareness and information**. Purpose:** To determine the effect of dragon fruit and diet combination to prevent iron deficiency anemia in adolescent girls. **Methods:** The method used is a literature review of four databases, namely Google Scholar, Google, Science Direct and PubMed in the 2020-2025 period. **Results:** Based on the 10 articles used in this literature review, it shows that dragon fruit and a combination of diets can increase hemoglobin levels related to the prevention of iron deficiency anemia status in adolescent girls**. Conclusion:** Dragon fruit and a combination of diets can be used as an alternative food to prevent iron deficiency anemia in adolescent girls.

Keywords: dragon fruit, hemoglobin levels, iron deficiency anemia, adolescent girls

Citation: Dewanti, K. N. & Febriana, A. 2025. 'The Utilization of Dragon Fruit (Hylocereus Polyrhizus) and Dietary Combination to Prevent Iron Deficiency Anaemia in Adolescence Girls: Literature Review'. *International Journal of Biomedical Nursing Review*. 4(2). p27-35. https://doi.org/10.20884/1.ijbnr.2025.4.2.17399

INTRODUCTION

Adolescence is a period leading up to adulthood. According to the Health Regulation of the Ministry of Health Republic of Indonesia 2014, adolescence is defined as the age range of 10-18 years. According to the WHO, adolescence is defined as 12-24 years. According to the National Population and Family Planning Board, adolescence includes unmarried adolescents. Therefore, adolescence is defined as the age range of 10-24 years and unmarried.

During adolescence, rapid growth and development occur. This affects both physical and psychological aspects. According to the Indonesian Pediatrics Society (IDAI), this process requires a balanced nutritional intake to support physical growth, cognitive development, and reproductive development.

An unbalanced nutritional intake in adolescents can lead to various health risks. Some of the health issues closely associated with adolescents are anaemia, stunting, obesity, mental health, and reproductive health (Kemenkes RI, 2019). The results of this basic health research indicate that health issues, particularly those related to balanced nutritional intake, remain a problem that requires solutions.

Anemia is a condition in which the number of red blood cells or the concentration of hemoglobin in the blood is below normal (WHO, 2025). This is a serious problem because if the hemoglobin in the blood is below normal, the body's tissues will experience a lack of oxygen, which hemoglobin should be able to carry. Normal

hemoglobin levels adolescent girls are 12-15 mg/dl, and girls are considered anemic if their Hb levels are <12 mg/dl (Kemenkes RI, 2023). One type of anemia caused by iron deficiency and common in adolescents is iron deficiency anemia.

The prevalence of anemia among adolescents worldwide is around 40-88%. According to the WHO, the prevalence of anemia among adolescent girls in developing countries is around 53.7%, and approximately 50% of anemia among adolescent girls worldwide is caused by iron deficiency. The Indonesian Basic Health Research in 2018 results indicate that 48.9% of adolescent girls aged 15-24 and 25-34 years suffer from anemia. These figures indicate the persistently high prevalence of anemia among adolescent girls, which requires follow-up, particularly interventions or management to address anemia.

One method of anemia management in adolescent girls in Indonesia that has been implemented in collaboration with schools is the consumption of iron supplements. However, according to The Indonesian Basic Health Research (2018), adolescent compliance with the standard consumption of iron supplements/tablets (≥52 tablets in 12 months) remains very low at 1.4%. This is due to various factors, including forgetting to take the iron tablet, side effects of the iron tablet, organoleptic disorders, feeling unnecessarily healthy, and limited teacher resources (Wardani, 2024). Therefore, additional management efforts such as consuming a balanced, nutritious diet are necessary (Kemenkes RI, 2023).

This is important because adolescence is a time of rapid growth and development, including meeting the Recommended Dietary Intake (RDI). According to a study by the Institute of Medicine (Cohen & Powers, 2024), the RDI for boys and girls in early adolescence (ages 9– 13) is 8 mg of iron per day. For adolescents aged 14 to 18, this increases to 11 mg per day for boys and 15 mg per day for girls. During growth, iron requirements can increase by 1 mg per day to 3 mg per day.

Meeting the RDI needs to be considered in adolescents' daily intake. Furthermore, a balanced diet is also fundamental, as per the "Isi Piringku" guidelines, which state that 2/3 of each half of the plate should be staple foods and vegetables, and 1/3 of each half should be side dishes and fruit (Minister of Health Regulation No. 25 of 2014, 2014).

However, one food consumption issue still underreported among adolescents is fruit consumption. The prevalence of fruit and vegetable consumption among adolescents is 67.1%, with a daily intake of less than 400 grams. The Indonesian Basic Health Research 2018 also showed that 96.4% of adolescents in the 15-19 age group consumed insufficient fruit and vegetables. This is despite the fact that fruit consumption is linked to iron deficiency anemia, as it facilitates and accelerates iron absorption in the body.

Dragon fruit, known as Hylocereus polyrhizus, is a fruit rich in vitamin C, iron, and other vitamins. The iron content in dragon fruit is 0.55-0.65 mg/100 grams. This is supported by research (Marwang et al., 2023) which demonstrated the effect of dragon fruit juice on increasing hemoglobin in adolescent girls, with an average Hb level of 11.4 g/dl before intervention and 12.47 g/dl after intervention.

METHOD

The design used in this study is a literature review. The data collection process was carried out by searching the literature in the form of national and international scientific articles. The author conducted a search using databases namely Google Scholar, Google, Science Direct and PubMed. The author used keywords dragon fruit, hemoglobin levels, iron deficiency anemia, adolescent girls. Articles that met the inclusion and exclusion criteria were selected for analysis. The selected articles were from the period 2020-2025. The inclusion criteria were national and international journals that fit the topic of dragon fruit and dietary food combinations to treat or prevent iron deficiency anemia, quasi-experimental methods; pre-experimental; quantitative design, respondents were adolescents. Meanwhile, the exclusion criteria were journals before 2020; literature review methods; and systematic re

Table 1. List of Literature

No	Tittle	Author	Aim	Method	Results
1	Increasing emoglobin Levels with Dragon Fruit Juice in Adolescent Girls with Anemia	(Marwang et al., 2023)	Assessing the effect of dragon fruit (Hylocereuspolyrhizus) on increasing hemoglobin levels in adolescent girls	Experimental design with a one-group pretest-posttest design	The results of the paired t-test showed that in the intervention group (dragon fruit juice administration), the ρ value was 0.000, where ρ < α (0.05). It can be concluded that dragon fruit juice administration has an effect on increasing hemoglobin in adolescent girls.
2	A Comparative Study of Red Dragon Fruit Juice with Red Guava Juice on Hemoglobin Levels in Adolescents	(Damayanti et al., 2021)	Determine differences in the effectiveness of administration of red guava juice and red dragon fruit juice on hemoglobin (Hb) levels in young women	Quasi-experimental research design with pre-test and post-test without control	The mean Hb level of red guava juice group was pre-test 13.18 gr / dL and post-test 14.71 gr/ dL with P value 0.000. The mean Hb levels of the red dragon fruit juice group were 13.13 gr / dL pre-test and 15.41 gr / dL post-test with. P Value 0,000.
3	The Effect Of 200 Gram And 500 Gram Red Dragon Fruit Juice (Hylocereus Polyhizus) in Increasing of Hemoglobin Level Adolescent Grils in SMA Negeri I Banguntapan Bantul 2020	(Wahyuningsih et al., 2021)	To determine the effect of giving red dragon fruit juice (Hylocereus Polyrhizus) on the increase of hemoglobin in the post- menstrual adolescent girls at SMA Negeri 1 Banguntapan	Quasy experiment using pre-test and post-test nonequivalent control group design.	Dragon fruit juice 500 gram is effective for increasing hemoglobin level adolecent girls in SMA Negeri I Banguntapan Bantul p value 0.009 (pvalue <α (0.05). There was no significant difference on the dragon fruit juice 200 gram and 500 gram in increasing Hb
4	Effects of a mixture hylocereus polyrhizus (Red Dragon Fruit) juice and moringa leaf powder towards hemoglobin level in adolescent girls	(Ritonga & Maigoda, 2023)	To determine the effect of administering a mixture of Hylocereus polyrhizus fruit juice and Moringa leaf powder on hemoglobin levels in adolescent girls.	A quasi-experimental study was conducted in this study with two intervention groups and one control group.	The combination of Hylocereus polyrhizus juice and Moringa leaf powder was significantly associated with increased hemoglobin levels compared to the group given only Hylocereus polyrhizus juice, with a p-value of 0.000 (p<0.05).
5	Effectiveness of	(Supriati &	Evaluate the	Qualitative research	There was a slightly slower increase in

No	Tittle	Author	Aim	Method	Results
	giving dragon fruit and ambon banana to increase haemoglobin levels in anaemic adolescent girls	Kusumastuti, 2024)	effectiveness of dragon fruit and ambon banana administration in increasing haemoglobin levels in anaemic adolescent girls	combines observational and intervention approache	haemoglobin levels in adolescents who were given Ambonese bananas in the first week of 10.2 g / dl, the second week of 10.8 g / dl, and the fourth week of 11.3 g/dl.
6	Testing the Effectiveness of Dragon Fruit on Hemoglobin Levels in Adolescent Girls	(Pravita Sari, 2023)	To determine the effect of dragon fruit juice on hemoglobin levels in adolescent girls.	Pre-experimental research with a one-group pre-test post-test control design	Giving 200 grams of dragon fruit juice per day for 10 consecutive days increased hemoglobin levels by 1.1 g/dl.
7	The effect of giving combination boiled chicken egg and red dragon fruit (Hylocereus polyrhizus) to increase hemoglobin levels in women during menstruation	(Khuzaimah et al., 2023)	The effect of the combined onsumption of boiled chicken egg and dragon fruits to increase hemoglobin levels in women during their menstruation	A Quasy experiment	The intervention of boiled chicken eggs and red dragons fruit increase hemoglobin levels in women and may lead to decreased iron deficiencyanemia during menstruation.
8	Iron Fortification of Fermented Red Dragon Fruit Peel (Hylocereus polyrhizus) Milk Drink Improves Hemoglobin Levels and Nutritional Status in Adolescent Girls Anemia	(Gunawan et al., 2021)	To determine the effect of iron fortification of fermented red dragon fruit skin milk drinks (Hylocereus polyrhizus) on hemoglobin levels and nutritional status in anemic adolescent girls.	The type of research is a randomized controlled trial with a pre and post-test design.	There was a difference in the mean nutritional status of the treatment and control groups both before and after the intervention (p-value = 0.018 and p-value = 0.006). There was a difference in the mean nutritional status before and after the intervention in the treatment group (p<0.001).
9	The Effect of Dragon Fruit Juice on Hemoglobin Levels in Anemic Adolescent Girls at the Riyadhul	(Azizah et al., 2024)	The effect of fruit juice on increasing hemoglobin levels in adolescent girls with anemia	Quantitative method, with a pre-experimental research design with a one-group pretest- posttest	Bivariate analysis yielded a P value of 0.000 <=0.05, indicating that dragon fruit juice administration significantly increased hemoglobin levels in adolescent girls with anemia.

No	Tittle	Author	Aim	Method	Results
	Mubtadi'ien Islamic Boarding School in Pesawaran Regency			approach.	
10	Dragon fruit (hylocereus polyrhizus) and beetroot (beta vulgaris) on increasing hemoglobin levels	(Rohanah et al., 2023)	To determine the effectiveness of giving dragon fruit and beetroot juice on hemoglobin levels in anemic adolescents.	Quasi-experimental with a two-group pre-test and post-test design, data collected by examining Hb before and after the intervention.	The Wilcoxon test showed that the average hemoglobin level after dragon fruit juice was 13.03 ± 1.27 g/dl, and the average hemoglobin level after beetroot juice was 12.03 ± 0.32 g/dl. The statistical test results showed a p-value of 0.001, α: 0.05, with a p-value of 0.001 < 0.05. Therefore, it can be concluded that dragon fruit and beetroot juice have an effect on increasing hemoglobin levels in anemic adolescents.

DISCUSSION

Based on Indonesian Demographic and Health Survey (2022), the current prevalence of iron deficiency anemia in Indonesia is 23% among adolescents aged 13-18 years, while it is 17% among men. According to the Ministry of Health (2024), 32% of adolescents aged 15-24 years suffer from anemia. Research on anemic adolescents shows that they consume snacks more frequently, including sweet and fatty foods, indicating an unbalanced diet (Sari et al., 2022). Adolescents still do not implement a balanced nutritional diet in their daily diet. Factors related to the incidence of anemia are BMI with a p value of 0.023 (<0.05), LILA with a p value of 0.012 (<0.05), dietary patterns with a p value of 0.021 (<0.05), menstrual patterns with a p value of 0.026 (<0.05) (Vaira et al., 2022).

Iron deficiency anemia is a common problem among adolescents, especially young women. Adolescent girls are at risk of developing anemia due to their high nutritional needs at this age, related to accelerated growth, menstrual blood loss, malnutrition, and poor iron intake (Habib et al., 2020). However, adolescents often pay little attention to their nutritional intake, particularly iron, which is a key indicator for preventing iron deficiency anemia.

Nutrient intake in your daily diet is crucial. One source of daily nutrition that supports nutrient absorption comes from consuming fruit. Dragon fruit is a fruit high in iron. It contains antioxidants, fiber, vitamins B1, B2, B3, C, and E. It also contains: carotenoids, flavonoids, betacyanins, and betaxanthins (Aryanta, 2022). These compounds play a vital role in red blood cell protection and enhance iron absorption, enabling red blood cells to optimally carry oxygen throughout the body.

According to research (Marwang et al, 2023), there is an effect of dragon fruit juice on hemoglobin levels in adolescent girls. The difference in Hb levels before treatment was 11.14 g% and after treatment was 12.47 g%. This study is in line with research (Wahyuningsih et al, 2021), in this study looked at the effect of dragon fruit on improving iron deficiency anemia, but this study compared the administration of 200 grams and 500 grams of dragon fruit. The intervention group was given dragon fruit juice for 3 days before and after being given 200 grams of fruit juice and 500 grams of fruit juice, then hemoglobin (Hb) levels were examined. The results showed that 500 grams of dragon fruit was effective in increasing hemoglobin levels with an average Hb of 11.24 g/dl and in the 200 gram group of dragon fruit of 10.88 g/dl.

Another study testing dragon fruit for increasing hemoglobin levels was conducted by (Sari & Fera, 2023). Dragon fruit juice consumption affected hemoglobin levels in adolescent girls by 1.1 g/dl over a 10- day period. This finding aligns with research by Azizah et al. (2024) that found dragon fruit juice significantly increased hemoglobin levels in adolescent girls. Before dragon fruit juice administration, the average Hb in adolescent girls was 11.37 mg/dl, and after administration, it was 12.04 mg/dl.

Another study, according to Damayanti et al., 2021, compared the effects of dragon fruit juice and guava juice on hemoglobin levels. The results showed that the average pre-intervention level in the dragon fruit juice group was 13.13 g/dl and post-intervention level was 15.41 g/dl. Meanwhile, the pre-intervention level in the guava juice group was 13.18 g/dl and post-intervention level was 14.71 g/dl. This indicates that both groups can increase hemoglobin levels, but the dragon fruit juice group experienced a greater increase in Hb.

Ritonga & Tonny's (2023) study related to the effect of a mixture of red dragon fruit juice and moringa leaf powder. The intervention group consisted of 100 grams of dragon fruit juice and 4.2 grams of moringa leaf powder/flour with the addition of 100 ml of water for 14 days. The results showed that there was a higher average increase in Hb (2.2 g/dl) compared to the group that only consumed dragon

fruit juice (1.1 g/dl). This indicates that dragon fruit juice consists of strong ingredients such as iron and vitamin C. Furthermore, it was added with moringa leaves which also contain iron, vitamin A, vitamin C, amino acids, quercetin and glutamic acid.

Another type of diet to increase hemoglobin levels was also conducted in research by Supriati & Istiana (2024). The intervention consisted of giving Respondent 1 100 grams of dragon fruit juice every 3 days for 1 month and respondent 2 100 grams of Ambon banana every 3 days for 1 month.According to researchers, hemoglobin levels in respondents who consumed dragon fruit juice increased significantly compared to those who consumed bananas.

In the dragon fruit group, the increase in Hb was 10.1 g/dl in the first week, 11.2 g/dl in the second week, and 12.3 g/dl in the third week. Meanwhile, in the banana group, the increase was 10.2 g/dl in the first week, 10.8 g/dl in the second week, and 11.3 g/dl in the third week. This may be due to the higher iron content of 0.55 to 0.60 mg per 100 grams of dragon fruit, compared to 0.2 to 0.3 mg per 100 grams of banana.

Based on the research of Khuzaimah et al (2023), interventions providing boiled chicken eggs and dragon fruit can increase hemoglobin levels in adolescents during menstruation. The intervention was carried out on adolescents during menstruation, red dragon fruit (365 g per day) and boiled chicken eggs (± 36 grams per day) at 15-minute intervals for 5 consecutive days. The results showed that in the intervention group there was an increase in Hb of 4.4 g/dl from 9.12 g/dl to 13.51 g/dl. This can occur because of the two iron contents in each food ingredient, namely in chicken eggs at 1.2 mg/100 grams and in dragon fruit at 0.7 mg/100 grams.

Another study conducted by Gunawan et al. (2021) involved iron fortification of fermented milk drinks with red dragon fruit peel. The intervention involved administering 100 ml of the drink daily for three weeks. The results showed that before the intervention, Hb levels were 11.04 and after the intervention, Hb levels were 12.27. Meanwhile, BMI before the intervention was 20.25 and after the intervention was 21.23. This may be because the combination of fermented milk and dragon fruit peel optimizes the absorption of micro and macronutrients by lowering the pH in the digestive tract and reducing pathogenic bacteria, thereby increasing iron availability.

Research (Rohanah et al, 2023) on the administration of dragon fruit and beetroot to increase hemoglobin levels. The intervention was carried out by administering 200 ml/day of dragon fruit juice for 6 days with a composition of 100 ml of water and 100 grams of dragon fruit. Then the beetroot group received an intervention of 200 ml/day of beetroot juice for 6 days with a composition of 100 grams of beetroot, 35 grams of granulated sugar and 65 cc of boiled water. The results showed that the dragon fruit group experienced an increase in Hb of 13.03 g/dl and the beetroot group experienced an increase in Hb of 12.03.

CONCLUSION

Iron deficiency anemia is a health problem that requires holistic treatment, not just iron supplements but also a balanced, nutritious diet, one of which includes consuming fruit, which helps optimize iron absorption. Iron deficiency anemia can be prevented by consuming dragon fruit, a combination of dragon fruit with moringa leaves, bananas, beets, and fermented milk made from red dragon fruit skin.

However, the current assumption among Indonesians that fruit is difficult to consume daily is a misconception. It is hoped that fruit consumption will become a good habit. Dragon fruit is a solution and is recommended for daily consumption to supplement iron deficiency anemia.

REFERENCES

Aryanta, I. W. R. (2022). Manfaat Buah Naga Untuk Kesehatan. *Widya Kesehatan*, *4*(2), 8–13. https://doi.org/10.32795/widyakesehatan.v4i2.3386

Azizah, L. N., Sagita, Y. D., Sanjaya, R., & Isnaini, M. (2024). Yang Mengalami Anemia Di Pondok Pesantren Riyadhul Mubtadi' Ien Kabupaten Pesawaran. *Jurnal Maternitas Aisyah*, *5*, 182–191.

Cohen, C. T., & Powers, J. M. (2024). Nutritional Strategies for Managing Iron Deficiency in Adolescents: Approaches to a Challenging but Common Problem. *Advances in Nutrition*, *15*(5), 100215. https://doi.org/10.1016/j.advnut.2024.100215

Damayanti, S., Lestiawati, E., & Anggreni, N. W. D. N. (2021). a Comparative Study of Red Dragon Fruit Juice with Red Guava Juice on Hemoglobin Levels in Adolescents. *Jurnal Keperawatan Respati Yogyakarta*, *8*(1), 16. https://doi.org/10.35842/jkry.v8i1.592

Gunawan, D. C. D., Dewi, D. P., & Astriana, K. (2021). FORTIFIKASI FE MINUMAN SUSU FERMENTASI KULIT BUAH NAGA MERAH (Hylocereus polyrhizus) MENINGKATKAN KADAR HEMOGLOBIN DAN STATUS GIZI REMAJA PUTRI ANEMIA. *Journal of Nutrition College*, *10*(2), 156–163. https://doi.org/10.14710/jnc.v10i2.29177

Habib, N., Abbasi, S. U. R. S., & Aziz, W. (2020). An Analysis of Societal Determinant of Anemia among Adolescent Girls in Azad Jammu and Kashmir, Pakistan. *Anemia*, *2020*. https://doi.org/10.1155/2020/1628357

Kementerian Kesehatan RI. 2019. Hasil Riset Kesehatan Dasar (Riskesdas) 2018. Jakarta: Badan Penelitian dan Pengembangan Kesehatan.

Khuzaimah, U., Sulistiarini, R., Rija'i, H. R., & Alfiani, R. (2023). The effect of giving combination boiled chicken egg and red dragon fruit (Hylocereus polyrhizus) to increase hemoglobin levels in women during menstruation. *North African Journal of Food and Nutrition Research*, *7*(16), 46–53. https://doi.org/10.51745/najfnr.7.16.46-53

Marwang, S., Passe, R., & Sudirman, J. (2023). Peningkatan Kadar Haemoglobin Dengan Pemberian Jus Buah Naga Pada Remaja Putri yang Mengalami Anemia. *Jurnal Ilmiah PANNMED (Pharmacist, Analyst, Nurse, Nutrition, Midwivery, Environment, Dentist)*, *18*(1), 179–184. https://doi.org/10.36911/pannmed.v18i1.1571

Permenkes Nomor 25 Tahun 2014, 1 (2014).

Pravita Sari, A. (2023). Uji Efektifitas Buah Naga Terhadap Kadar Hemoglobin Remaja Putri Dragons Fruit Effectiveness Test on Hemoglobin Levels of Adolscents Women. *Uji Efektifitas Buah Naga Terhadap Kadar Hemoglobin Remaja Putri Dragons Fruit Effectiveness Test on Hemoglobin Levels of Adolscents Women*, *11*(1), 25–26.

Ritonga, E. A. W., & Maigoda, T. C. (2023). Effects of a mixture hylocereus polyrhizus (Red Dragon Fruit) juice and moringa leaf powder towards hemoglobin level in adolescent girls. *AcTion: Aceh Nutrition Journal*, *8*(3), 478.https://doi.org/10.30867/action.v8i3.1088

Rohanah, R., Puspita, R. R., Wijaya, R. D., Pratiwi, R. D., & Hareva, J. A. (2023). Buah naga (hylocereus polyrhizus) dan buah bit (beta vulgaris) terhadap peningkatan kadar hemoglobin. *Holistik Jurnal Kesehatan*, *17*(6), 465–472. https://doi.org/10.33024/hjk.v17i6.11800

Sari, P., Herawati, D. M. D., Dhamayanti, M., & Hilmanto, D. (2022). Anemia among Adolescent Girls in West Java, Indonesia: Related Factors and Consequences on the Quality of Life. *Nutrients*, *14*(18), 1–13. https://doi.org/10.3390/nu14183777

Supriati, Y., & Kusumastuti, I. (2024). Effectiveness of giving dragon fruit and ambon banana to increase hemoglobin levels in anemic adolescent girls. *Jurnal Ilmiah Kesehatan Sandi Husada*, *13*(1), 41–46. https://doi.org/10.35816/jiskh.v13i1.1137

Vaira, R., Merlin Karinda, & Muflihah. (2022). Factors Related Of Anemia In Adolescence Girl. *Science Midwifery*, *10*(4), 2490– 2495. https://doi.org/10.35335/midwifery.v10i4.696

Wahyuningsih, M., Khasanah, N., & Widodo, C. D. (2021). THE EFFECT OF 200 GRAM AND 500 GRAM RED DRAGON FRUIT JUICE (Hylocereus polyhizus) IN INCREASING OF HEMOGLOBIN LEVEL ADOLESCENT GRILS IN SMA NEGERI I BANGUNTAPAN BANTUL 2020. *Jurnal Keperawatan Respati Yogyakarta*, *8*(2), 79. https://doi.org/10.35842/jkry.v8i2.613