



AN EXPLORATORY STUDY TO ASSESS THE KNOWLEDGE OF THE IRON DEFICIENCY OF ANEMIA AMONGST ADOLESCENT GIRLS IN G.S COLLEGE OF NURSING, PILKHUWA HAPUR, UTTAR PRADESH

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Introduction

Anemia is a widespread public health issue affecting people of all ages worldwide, particularly women, children, and adolescents. According to the World Health Organization (WHO), anemia affects over 1.6 billion people globally, making it one of the most common nutritional deficiencies. The condition occurs when the body lacks enough healthy red blood cell or hemoglobin to carry adequate oxygen to the body's tissues, leading to fatigue, weakness, and poor concentration. The most common cause of anemia is iron deficiency, often due to inadequate dietary intake, blood loss, or poor absorption. Other causes include vitamin B12 or folate deficiency, chronic diseases, infections like malaria, and genetic disorders such as thalassemia and sickle cell disease.

PROBLEM STATEMENT

An exploratory study to assess the knowledge of the iron deficiency of anemia amongst adolescent girls in G.S College Of Nursing in Pilkhuwa, Hapur, Uttar Pradesh.

PURPOSE OF STUDY

The main purpose of this study to assess the knowledge of the iron deficiency of regarding anemia among adolescent girls Bsc. Nursing Student at G.S college of Nursing, Pilkhuwa, Hapur.

OBJECTIVES OF STUDY

1. To assess the knowledge of the anemia among adolescent girls.
2. To determine the relationship between knowledge and selected variables.

OPERATIONAL DEFINITIONS

- **Assess:-** (assess for dictionary meaning is, estimate, appraise, judge) it is the organized systematic & continuous process of collecting information about pretest & post-test knowledge girls regarding from adolescent girls regarding anemia.
- **Effectiveness:-** it implies to produce a desire effect for an action.
- **Structured teaching program:-** Refer to the systematically structured teaching program designed to provide Information regarding prevention and prevalence of anemia.
- **Knowledge:-** It refers to correct response of adolescent girls to knowledge items on prevention and prevalence of anemia.
- **Prevalence:-** It refers to the fact or condition of being prevalent commonness.
- **Prevention:-** It refers to the action of stopping from happening anemia.
- **Anemia:-** It refers to a decrease in the concentration of circulating red blood cell or in the hemoglobin concentration and a transport oxygen.

HYPOTHESIS

H1-There will be significant difference between pre-test and post-test knowledge regarding Prevalence of Anemia among the adolescent girls receiving Structured Teaching Program (STP).

The post-test knowledge results were better than the pre-test.



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Variables under study **Dependent variable:** Anemia among adolescent girls.

Independent variable: age, gender, religion, education, occupation, year of experience, type of family, marital status and income etc.

DELIMITATIONS OF THE STUDY

The period of data collections is limited to 3 weeks.

Sample of study limited to 50 adolescent girls.

METHODOLOGY

1. **Research approach:** Quantitative research approach.

2. **Research design:** Quasi experimental (one group pretest posttest) design.

3. **Variables of the study**

- **Independent variable:** Knowledge of adolescent girls regarding prevention and management of anemia.
- **Dependent variable:** Planned teaching programme regarding prevention and management of anemia.
- **Demographic variables:** Age, educational qualification, occupation, family income, type of family, type of house, number of children in the family, use of mosquito net and source of information about malaria.

4. **Setting of the study:** GS College of Nursing Pilkhuwa, Hapur.

5. Population

- **Target population-** adolescent girls girl from GNM I year and B.se Nursing I year at G.S College of Nursing Pilkhuwa, Hapur.
- **Accessible Population-** Students of GNM 1st year and B.sc Nursing 1st year at G.S College of Nursing Pilkhuwa, Hapur.

6. **Sample size:** 50 adolescent students

7. **Sampling technique:** purposive sampling technique.

8. **Sampling criteria**

- **Inclusion criteria**

1. The adolescent girls who are willing to participate in the study.
2. The adolescent girls who are available during period of data collection.
3. The adolescent girls who can able to communicate either in Hindi or English.
4. The adolescent girls who are in 17-19 year of age.
5. The adolescent girls who gave consent to participate in the study.

- **Exclusion criteria**

1. The adolescent girls who are not willing to participate in the study.
2. The adolescent girls who are absent during the period of data collection.
3. The adolescent girls who had receive knowledge regarding prevention of anemia through teaching programme or health education.

ANALYSIS & INTERPRETATION

These results were computed using descriptive and inferential statistics.

The analyzed data was organized according to the objectives and presented under the following sections:



SECTION I: Socio demographic characteristics of the sample

TABLE :1 Frequency and Percentage Distribution the sample characteristics

N=45

Characteristics	n	%
AGE (in year)		
a)13-15	6	13.33
b)16-18	7	15.55
c)19-21	14	31.11
d)2-24	18	40
IRON DEFFICIENCY		
a) No Iron deficiency	5	11.11
b) Mild	17	37.77
c) Moderate	15	33.33
d) Severe	8	17.77
EDUCATION		
a)Illiterate	9	20
b)10 th Pass	14	31.11
c)12 th Pass	13	28.88
d)Graduation	9	20
INCOME		
a)<5000	8	17.77
b)5001-10000	18	40
c) >10000	19	42.22
RESIDENCE		
a)Urban	41	91.11
b)Rural	4	8.88

Table 1 depicts that subjects studied were distributed in various categories according to age, occupation, income, residence. According to age 40% were in the age group 19 – 21 years, followed by 31.11% in age group 19 - 21 years, followed by 15.55% in the age group 16 - 18 years. Minimum number of respondents 13.33% were in the age group 13 - 15 years. According to Iron deficiency, 37.77% were in the mild iron deficiency, followed by 33.33% in the moderate iron deficiency, followed by 17.77% in more than moderate iron deficiency. Minimum number of respondents 11.11% were in no iron deficiency. According to education 31.11% were 10th pass, followed by 28.88% 12th pass. 20% were graduate and 20% were illiterate.

According to income maximum 42.22% were in the income group of more than 10000, followed by 40% in the income group of 5000-10000. 17.77% were in income group of less than 5000.

According to residence ,91.11% were living in urban areas. Only 2.22% were business women.

OBJECTIVE-2 To determine the relationship between knowledge and selected variables.



Table2.Knowledge of adolescent girls regarding signs and symptoms of anemia.

N=45

Level of knowledge	Score	n	Mean Percentage
Excellent	>18	0	0
Good	13-18	5	10
Average	6-12	25	50
Poor	<6	20	40

Maximum score = 24

Minimum score =0

It depicts that 50% of adolescent girls had average knowledge regarding signs and symptoms of anemia, followed by 40% who had poor knowledge and 10% who had good knowledge regarding sign and symptoms of anemia.

TABLE3-Mean percentage of knowledge score of adolescent girls regarding signs and symptoms of anemia according to age. N=45

Age	N	Mean Knowledge score	Mean %	SD
13-15	6	5	20.83	1.606
16-18	7	7.85	32.7	5.17
19-21	14	5.07	21.12	12.02
22-24	18	8.05	33.54	15.66

Maximum score =24

Minimum score =0

Table -3 depicts the highest mean knowledge score 8.05 in age group 22-24 years, followed by 7.85 in age group 16-18 years, followed by 5.07 in the age group 19-21 years. The lowest mean knowledge score 5 was in age group 13-15 years.

Hence it was inferred that age had significant impact on the knowledge scores of adolescent girls regarding signs and symptoms of anemia.



TABLE – 4 -Mean percentage of knowledge score of adolescent girls regarding signs and symptoms of anemia according to iron deficiency.
N=45

IRON DEFICIENCY	N	Mean knowledge score	Mean %	SD
No Iron deficiency	5	4.4	18.33	3.24
Mild	17	8.23	18.28	15.48
Moderate	15	6.06	25.25	14.22
Severe	8	6.5	27.08	8.6

Maximum score =24

Minimum score =0

Table 4 and figure -13 depicts highest mean knowledge score of adolescent girls regarding signs symptoms of anemia 8.23 were mild and lowest 4.4 were of no iron deficiency . Hence it was inferred that iron deficiency had impact on knowledge score of adolescent girls regarding signs and symptoms of anemia. regarding signs and symptoms of anemia.

Major findings of the study are:

Objective 1: to assess the knowledge of adolescent girls regarding signs and symptoms of anemia. Majority of adolescent girls were not aware of signs and symptoms of anemia.

Only a small proportion had some awareness regarding signs and symptoms of anemia.

Aittomaki (1995)12

Objective 2: To identify the relationship between knowledge and selected variables.

Age has significant impact on knowledge of adolescent girls regarding signs and symptoms of anemia. This is supported by Akin (2003)13 According to the analysis of data in relation to iron deficiency, the highest knowledge scores were obtained by adolescent girls with no iron deficiency and the lowest were obtained by mild with moderate. The iron deficiency had no impact on knowledge of adolescent girls regarding signs and symptoms of anemia. Eroglu (2005)14 According to the analysis of data in relation to education, the highest knowledge score were obtained by 10 pass adolescent girls and the lowest were obtained by the graduates and illiterate adolescent girls. The education had no impact on knowledge of adolescent girls regarding signs and symptoms of anemia DeAlovsio (1998) 15 also in his study suggested that education enhances the adolescent girls awareness and their ability to process and seek information. According to the analysis of data in relation to income adolescent girls having monthly income greater than 10000 have the highest knowledge score while the least was found in those having monthly income less than 5000. This can be supported by Alexander (2004)16 who stated that adolescent girls with higher income had more knowledge than others. According to the analysis of data in relation to residence, higher mean knowledge scores were obtained by adolescent girls residing in urban areas and lower were obtained by the adolescent girls residing in rural areas.

CONCLUSION

On the basis of the results of data analysis the following conclusions were made: Maximum number of adolescent girls under study had average knowledge followed by adolescent girls having below average knowledge. Only a small number of adolescent girls had good knowledge.



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BIBLIOGRAPHY

BOOK REFERENCES:

1. Ferrell, B. R., & Coyle, N. (2018). Assessing and managing pain, symptoms, and stress in anemia. Oxford University Press.
2. Matzo, M., & Sherman, D. W. (2019). Anemia: Principles and trends for evidence-based practice. Springer Publishing Company.
3. O'Connor, M. (2018). Anemia: A nursing perspective. Routledge.
4. Emanuel, L. L., & Librach, S. L. (2017). Anemia: Core skills and clinical competencies. Elsevier.
5. Saunders, C. (2018). The care of the Iron deficiency patient: A new edition. Oxford University Press.
6. Glare, P., & Larkin, P. J. (2017). Anemia: An integrated approach. Oxford University Press.
7. Lugton, J., & Green, J. (2017). Nursing and Anemia. Routledge.
8. Maxwell, T. L., & McCoyd, J. L. M. (2017). Anemia: A guide for health social workers. Routledge.
9. Coyle, N., & Ferrell, B. R. (2019). Oxford textbook of anemia nursing. Oxford University Press.
10. Matzo, M., & Witt Sherman, D. (2020). Palliative care in the 21st century. Springer Publishing Company.

JOURNALS:

1. "Anemia Education for Nursing Students: A Systematic Review" (2020) to evaluate the effectiveness of anemia education for nursing students. DOI: 10.1089/jpm.2020.29134
2. "Teaching Anemia to Nursing Students: A Survey of Educators" (2020) to explore educators' experiences and perspectives on teaching Anemia to nursing students. DOI: 10.1097/NJH.0000000000000645
3. "Anemia care Nursing: A Qualitative Study of Nurses' Experiences" (2020) to explore nurses experiences and perspectives on providing Anemia care. DOI: 10.1111/1.13652702.2020.03234.
4. "Anemia in Nursing Practice: A Cross-Sectional Study" (2020) to examine the current state of Anemia in nursing practice. DOI: 10.1016/j.jan.2020.02.014
5. "Assessing Nursing Students' Knowledge and Attitudes towards Anemia" (2019) to assess nursing students knowledge and attitudes towards Anemia. DOI: 10.3928/01484834-20191120-02