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Research Article

**KNOWLEDGE OF ALI RAZABAAD'S FEMALES REGARDING  
ANEMIA IN THEIR REPRODUCTIVE AGES**<sup>1</sup>Sana Ramzan, <sup>2</sup>Mr. M Ajab Gul, <sup>3</sup>Dr. Kabir Ozigi Abdullahi

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**Article Received:** November 2021    **Accepted:** December 2021    **Published:** January 2022**Abstract**

**Aim:** The aim of this was to determine the knowledge level of community Ali Razabaad's females in their reproductive ages regarding anemia.

**Material and Methods:** This is community based cross sectional study and it was conducted in community Ali Razabaad's females. Sample size for this study was 145. Data analysis was done on SPSS version 21. Total time duration for this study was 5 months.

**Results:** The data was collected from 145 participants. There was survey-based data collection which contained 19 questionnaires. 1 score was given to correct option and 0 for wrong option. Highest maximum score was 19. This study showed 51.0% participants showed poor knowledge about anemia. Only 8.2% participants showed good knowledge in this study.

**Conclusion:** Majority of participants were actually having poor knowledge. All of them were from childbearing age and having 2 to 3 children, they had faced complications of anemia during earlier pregnancies. Poverty is also contributing factor of anemia in this study there is 14.6% participants who belonged to poor economic status. This study shows that 51% of participants have poor knowledge regarding anemia.

**Keywords:** Anemia, Knowledge, Childbearing-Ages.

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**INTRODUCTION:**

**As conducted by World Health Organization (WHO)** If level of hemoglobin (HB) is reduced from 12.0g/DL in females and below than 13.0g/DL in men, thus this condition is categorized as anemia. Although Hb level differs not only due to gender but also due to race and physiological rank, thus it shows it does not depend on gender only. It is also defined as hemoglobin concentration below a specific cut-off point depends upon age, sex, smoking habit and attitude at which the population is being assessed lives. (Engels, 2021)

World-widely, probably one third population is involved in anemia even its epidemiology is different because of its age, gender, class and it also varies as well as according to the living zone of a person. Anemia due to iron insufficiency has founded as most abundant nutritional issue in the world. Although it carries 25% of the population world-widely but mainly the women of childbearing ages. While a female in pregnancy requires greater amount of Red Blood Cells to move oxygen throughout the mother's body's cell as well as fetus body tissues, as it is abundantly founded in pregnancy. (Shahzad et al., 2017)

The frequency (currency) of anemia is fluctuated due to the region of the geographic. Even though Sub Saharan Africa (SSA) and South Asia has currency of anemia. (Chaparro & Suchdev, 2019)

Almost 51% of females who are not pregnant are having low concentration of hemoglobin. Whereas 20% are still tolerating anemia due to iron insufficiency. In Pakistan, the prevalence among children and women reproductive ages was 63% and 51%, respectively. (Rosli et al., 2019)

The anemia due to the insufficiency of iron is characterized with symptoms which are caused by less oxygen supply to the tissue which involves yellowish skin, lethargic state, stress, shortness of breaths, sentimental instability, having high palpitation, headache and falling of hairs. Instead of chronic iron deficiency it reduces the quality of life, inability to work, and reduces work output. Anemia due to iron deficiency has great influence on female as well as on her fetus, whereas it also influences cognitive ability and motor development. Even that it can lead to less birth weight of baby, pains before the right time of delivery, it also stops the growths of fetus in uterus, and it also enhances the rate of mother deaths as well rate of fetus deaths. (Aboud, El Sayed, & Ibrahim, 2019)

**Study Gap:**

The gap of this study is that the results of previous studies about anemia shows the poor knowledge of the participants and there is insufficient work especially in Pakistan. There is lack of knowledge about anemia its causes and its future complications. This study will enhance the knowledge of females of the childbearing ages to prevent from stillbirth, low birth weight and to improve female's reproductive capacity. This study will lead to improve their knowledge and the ways to improve their dietary habits.

**Problem Statement:**

Researcher visited the community Ali Razaabad, researcher noticed that the female of reproductive ages are unaware of anemia from conversation but they had symptoms of anemia like they were pallor, fatigue, depressed, fainting, breathlessness, emotionally instable, palpitation, headaches and hair loss. They were anemic but had not proper knowledge about Anemia. So researcher decided to assess the level of knowledge of Ali Razaabad females in their reproductive age regarding anemia.

**Significant of the study:**

The results will be used to recommend to the government and policy makers on way to improve and assist the community of Ali Razaabad on the shy forward to get the cheapest means to prevent anemia.

Upon completion of the research study generalized results will be discuss and recommendation authority and policy makers on ways to help community of Ali Razaabad on the cheapest dietary habit to improve the blood and hemoglobin.

The research will serve as a paradigm for researcher's own understanding about the knowledge of females on their reproductive ages regarding anemia. Hence researcher can improve her own academic knowledge about anaemia.

**Research Objectives:**

Main objectives of this study is

- To determine the knowledge of females regarding anemia in their reproductive ages.

**Operational Definition:****Knowledge:**

Knowledge is an awareness of the participants of this research regarding anemia. Correct answer ranked into Score 1, and every incorrect answer ranked into 0 score. The rating turned into calculated is totally based on a rating score of nineteen questions, accurate answers  $\geq 85\%$  (16 out of 19) consider as excellent

knowledge, 69% to 84% (13 to 15 out of 19) consider good knowledge, 52% to 68% (10 to 12 out of 19) consider moderate knowledge and  $\leq 51\%$  (11 out of 19) consider as poor knowledge.

#### LITERATURE REVIEW:

According to World Health Organization in 2019, Anemia is a less concentration of hemoglobin is a state in which currency of red blood cells of a person's body that are not sufficient to fulfill body's needs. Maternal anaemia is totally linked with mother as well as baby's the resulting to a high mortality and morbidity rate. This increase the chances of miscarriage, spontaneous abortion, premature delivery, and birth weight reduction.

A study was conducted in Ghana in 2021, which showed that majority (68.2%) of the adolescents were unaware from iron deficiency anemia. Their variables were knowledge and practice and most of the adolescents had inadequate proper knowledge about anemia (Kolb et al., 2021)

According to Ghana and Health Survey (2014), anaemia is mostly occurred by malaria because of mosquito bite as it effects on red blood cells directly, helminthic infection as another cause of anemia resulting to shortage of micronutrients like iron, vitamin A, vitamin B12, folic acid and zinc as well. It is reported world-wide that, iron deficiency anaemia in adolescent in several geographical regions of the world is recorded. (Chandrakumari, Sinha, Singaravelu, & Jaikumar, 2019)

A study had a survey and concluded that in their study there were 41% anemia prevalence from 15-49 years in Nepal. (Do et al., 2019).

According to Alflah et al. repeated child birth, less child space, gestational age factors, having tea or coffee after meal, less input of protein, having less information about maternity and low income level increases the chances of iron deficiency anaemia (Alflah, Wahdan, Hasab, & Tayel, 2017)

A descriptive study was designed in Tabuk Region of Saudi Arabia in 2019, study showed that 11.7% females of this region were anemic before conception. And roundabout half of the participants were in their second and third gravid. (Aboud et al., 2019)

Alghamdi suggested for women in their childbearing ages that initiate the steps which are leading to provide teaching intervention regarding the counselling before conception, enough intake of iron rich supplements,

folic acid, and quick recognition about anaemia and its treatment before childbirth. (Mokdad et al., 2016)

In 2017, Jalambo et al stated that there are multiple studies have done on anemia in different geographical regions and concluded that adolescents reported that they have less knowledge about anemia. They also claimed to have insufficient knowledge about its causes, effects, care and preventive measures regarding anemia. (Jalambo, Sharif, Naser, & Karim, 2017)

Ronto et al (2016) revealed that even though adolescents give appreciation to the knowledge about diet and nutrition is a compulsory element to attain good health practices. However they claimed that they were following these practices for good health.

In Yemen (2018) a cross sectional study was held to find the prevalence and risk factors of anemia and they found that iron deficiency anemia is found as most dangerous health issue in University Students in Hodeidah province. Smoking habits founded as to be related with a higher prevalence of IDA in many studies. Even though cigarettes smoking leads to rise the hemoglobin and hematocrit concentration which is directly influenced by the exposure to carbon monoxide which lowers oxygen tension and leads hypoxia in the body. (Al-Alimi, Bashanfer, & Morish, 2018) Regardless its multiple etiologies anemia can be nutritional which happens due to iron, folic acid and vitamin B12 deficiency, it can be inherited as thalassemia and sickle cell, it can be environmental due to lead consumption, infectious due to malaria, socioeconomics due to less maternal education and low income level, demographic factors as age and sex, autoimmune which is hemolytic anemia and iron deficiency anemia is the most common cause of anemia. (Aboud et al., 2019)

The people who are at greater risk to develop anemia are pregnant females, elderly adults, a person with loss of great blood quantity, person who is having poor diet nutrition children who are under one year of their lives females who are having babies above than three, a person who is having body mass index below than 20, females who are above 30 years, a person with less consumption green vegetables and foods and fruits, and female with less antenatal visits or a person having parasite in her/his gut. (Aboud et al., 2019)

According to WHO guidelines, anaemia with a prevalence of higher than 40% in females in their reproductive ages is a serious public health issue. Like it is more dangerous to be an anemic in reproductive

years.(Durand-Zaleski, Tilleul, Scotte, Roux, & Rosencher, 2018)

A cross sectional study in Nepal (2016) revealed that the prevalence of anaemia is found as less in married females, who were independent in their decision regarding healthcare practices. A female, who is independently takes her decision leads to improve her maternal care, Autonomy played an important role in maternal health care. (Osamor & Grady, 2016)

## **METHODOLOGY:**

### **Research Design:**

A cross sectional design was used in this study.

### **Study Site:**

This study was conducted in Community Ali Razaabad on Raiwind Road.

### **Study Setting:**

Data was collected from the females of puberty ages from 12 to 49 years from the Community of Ali Razaabad.

### **Data Analysis:**

The Analysis of this data was done using SPSS (Statistical Package for the Social Sciences). Then results and data collected was analyzed and presented in frequencies and percentage of graph, charts and figures.

### **Study Population:**

Target population for this study were females of their childbearing age from the community Ali Razaabad on Raiwind road, Lahore, Pakistan.

### **Sample Size:**

Slovin's formula was used to calculate the sample size for research

$$n = \frac{N}{1 + (E)^2}$$

Where n=sample size

N= population

E=margin of error=0.05

Sample size for this study is 145 by using Slovin's formula.

### **Sampling Technique:**

Convenient sampling technique was used in sample selection.

### **Inclusion and Exclusion Criteria:**

#### **Inclusion Criteria:**

Inclusion criteria of my study was based on 100 % females who fall in category of childbearing age from menarche to menopause 12 to 49 years of their ages. All were residents of the community as they expressed willingness for participation and they were include after consent.

#### **Exclusion Criteria:**

- Less than 12years or above than 49years females of the community
- Females who don't show interest in this survey were also excluded

### **Study Period:**

The period for this study was 4months.

### **Data Collection Plan:**

Participants of this study were from community Ali Razaabad. All the questionnaire of the knowledge were used to collect the data from willing participants after consent. Questionnaire were both open and closed ended.

### **Ethical Consideration:**

Ethical consideration was followed, while performing research.

### **Veracity:**

Complete information was given to community people and informed participants about study purpose.

### **Confidentiality:**

All the personal information of participants were kept confidential and was not discussed in this study.

### **Non- Maleficence:**

All the participant had open option to participate. No one was forced to respond and participate.

### **Autonomy:**

Informed consent was signed from all participants.

**RESULTSE:**

<b>Age Group</b>	<b>(f)</b>	<b>%</b>
11 to 20	41	28.3%
21 to 30	63	43.4%
31 to 40	27	18.6%
40 to 50	14	9.7%
<b>Education</b>		
Primary	35	24.1%
Secondary	66	45.5%
Post-Secondary	31	21.4%
University	13	9.0%
<b>Economic Status</b>		
Good Status	16	11.0%
Moderate	108	74.5%
Poor	21	14.5%

This table shows the demographic data of participants. The highest age group in this study as 21-30 years females, 63 participants (43.4%) out of 145 participants. 14 participants (9.7%) out of 145 participants were from the age group of 40-50.41 participants (28.3%) out of 145 from the age group 11-20. And remaining 27 participants (18.6%) were from age group 31-40.

This table shows the educational status of the participants in which 35 participants (24%) were primary passed, 66 participants (45%) were secondary passed, 31 participants (21.4%) were having post-secondary education and remaining 13 participants (9%) were having graduation degree. In this table here's economic status of the participants, 16 participants (11.0%) were from good economic class, 108 participants (74.5%) were belong to average class and others 21 participants (14.5%)

<b>Tools</b>	<b>(f)</b>	<b>(%)</b>
Have you heard about anemia?	Yes(136) No(9)	Yes (93.8) No (6.2)
From where you heard about anemia?	Family(75) Others(70)	Family (51.7) Others (48.3)
Is anemia health problem?	Yes (62) No (82)	Yes (42.2) No (57)
Is the anemia manifest with the decreased iron level in blood	Yes (35) No(110)	Yes (24.1) No (75.9)
Blood loss during menstrual cycle is the cause of anemia?	Yes ( 53) No (92)	Yes (36.6) No (63.4)
Being pallor is the symptom of anemia?	Yes (113) No (32)	Yes (77.9) No (22.1)
Do you know the effects of anemia?	Yes (34) No (111)	Yes (23.4) No (76.6)
Does Folic Acid Iron help in prevention of anemia?	Yes (53) No (92)	Yes (36.6) No (63.4)
Can you identify a person with anemia?	Yes (83) No (62)	Yes (57.2) No (42.8)
Can anemia be treated with iron supplements?	Yes (101) No (44)	Yes (69.7) No (30.3)

Fish is an iron rich food?	Yes (97) No (48)	Yes (66.9) No (33.1)
Do beverages effects anemia?	Yes (80) No (65)	Yes (55.2) No (44.2)
Is anemia hereditary disease?	Yes (61) No (84)	Yes (42.1) No (57.9)
Is it curable?	Yes (80) No (65)	Yes (55.2) No (44.2)
Is it transmissible?	Yes (63) No (82)	Yes (43.4) No (56.6)
It may lead to death?	Yes (72) No (73)	Yes (49.7) No (50.3)
Is it only effects females?	Yes (64) No (81)	Yes (44.1) No (55.9)
It does effect pregnancy	Yes (86) No (59)	Yes (59.3) No (40.7)
It may lead to low birth weight?	Yes (69) No (76)	Yes (47.6) No (52.4)

Tools	$\mu$	St. d
Have you heard about anemia?	94	242
From where you heard about anemia?	52	501
Is anemia health problem?	43	496
How does anemia manifest?	24	429
What is the cause of anemia?	37	483
The following are symptom of anemia?	78	416
Do you know the effects of anemia?	23	425
How do you prevent anemia?	37	483
Can you identify a person with anemia?	57	496
How can anemia be treated?	70	461
The following are Iron-rich foods, choose as much as possible?	33	472
Do beverages effects anemia?	55	499
Is anemia hereditary disease?	42	495
Is it curable?	55	499
Is it transmissible?	43	497
It may lead to death?	50	502
Is it only effects females?	44	498
It does not affect pregnancy?	59	493
It may lead to low birth weight?	48	501

### DISCUSSION:

The purpose of this study was to determine the knowledge level of females regarding anemia in their reproductive ages from 11 to 49 years old. There are many contributing factors that are playing a heavy part in anemia like blood loss during injury from any part of body, blood loss due to heavy bleeding in menstrual cycle, poor nutritional status, may be due to worm infestation, and it lead to pallor color of the skin,

growth and development retardation, inability to work properly, it affects pregnancy and can cause pre mature baby birth etc. All these factors were common in community, so researcher decided to work on the knowledge level. Poverty is also contributing factor of anemia in this study there is 14.6% participants who belonged to poor economic status.

For this study researcher categorized the knowledge level of participants in four steps, the participants who will get  $\geq 85\%$  score they will be fall in the category of Excellent knowledge, 69% to 84% will get good knowledge, 52% to 68% scoring will get moderate knowledge, and  $\leq 52\%$  scoring will get as poor knowledge.

Findings from this study showed that majority of the females were not aware from anemia and had less knowledge about the causes, consequences on children's health, and prevent. Knowledge about food sources of iron and iron-rich foods was positively associated with intake of fish was responded by 66.9% participants.

Our study shows that 93.8% participant had already heard about anemia. However, it was higher (88.9%) than that reported by Srinivas and Mankeshwar, (2015).

Researcher also observed that most of the participants who were unaware of anemia were also victims of anemia. This finding is analogous with Gebreyesus et al., (2019), study conducted in Ethiopia.

This study showed 51.0% poor knowledge, 40.6% moderate knowledge, 8.2% good knowledge and 0 % excellent knowledge. Majority of the participants also had limited knowledge about the causes, consequences, and prevention of anemia. The outcome was consistent with other studies conducted in India among adolescents (Kakkar et al., 2019; Melwani et al., 2018).

A study was conducted in Ghana in 2021, which showed that majority (68.2%) of the adolescents were unaware from iron deficiency anemia. Their variables were knowledge and practice and most of the adolescents had inadequate proper knowledge about anemia (Waife et al).

In 2017, Jalambo et al stated that there are multiple studies have done on anemia in different geographical regions and concluded that adolescents reported that they have less knowledge about anemia. They also claimed to have insufficient knowledge about its causes, effects, care and preventive measures regarding anemia.

A descriptive study was designed in Tabuk Region of Saudi Arabia in 2019, study showed that 11.7% females of this region were anemic before conception (Samia Abd Elhakeem H Aboud et al, 2017).

### CONCLUSION:

This study shows that 51% or participants have poor knowledge regarding anemia. Some of them responded that it can lead to low birth weight, it can lead to still-birth but mostly were not aware of it. Some responded that fish is an iron rich food. Some responded that being a pallor is the symptom of anemia. Majority of participant were actually having poor knowledge. All of them were from childbearing age and having 2 to 3 children, they had faced complications of anemia during earlier pregnancies. Poverty is also contributing factor of anemia in this study there is 14.6% participants who belonged to poor economic status.

### Limitation:

- The study was cross sectional and took data from the participants who were present at that time, other females were ignored.
- Time was short, only 4months to complete it.

### RECOMMENDATIONS:

- The healthcare providers should give education to females at community level to enhance the knowledge of females of the child bearing ages so that they can improve their dietary intake.
- The educational institutions should also play a key role to provide to the community residents to get the ways to improve their lifestyle. Government should organize programs and should reduce the expense of market so that they can afford suitable and healthy diet.

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