

**“Qualitative /situational analysis of prevalence and practices to prevent anaemia among Adolescents of Telangana Social Welfare Residential Educational Institutions Society” –Stakeholder-principal**

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## ABSTRACT

**Introduction:** Anaemia may be a condition characterised by a decrease within the concentration of haemoglobin in the blood that results from a reduced quality or amount of red blood cells that reduce Oxygen carrying capability to tissues. Red blood cells carry haemoglobin, an iron-rich protein that attaches to oxygen in the lungs and carries it to tissues throughout the body. Anaemia occurs when you do not have enough red blood cells or when your red blood cells do not function properly. It is diagnosed when a blood test shows a haemoglobin value of less than 13.5 gm/dl in a man or less than 12.0 gm/dl in a woman. Normal values for children vary with age.

**Aim:** To Study the current steps and practices on prevalence of anaemia among adolescents students studying in Telangana Social Welfare Residential Educational Institutions Society by different stakeholders perspective in Telangana state.

### **Objectives:**

To Study the prevalence of anaemia among adolescent children's in Telangana Social Welfare Residential Educational Institutions society by different stakeholders.

To know certain measures and techniques in the study

To analyse the current situation with the help of tools and techniques

### **Methods:**

Selection of districts from Telangana state based on NFHS indicators. A focus group discussion (FGD) interviewed was conducted with the stakeholder. A semi-structured questionnaire was prepared. Verbal and written informed consent was taken from the stakeholder before interviewing them. The responses was recorded for further non-verbal observations.

**Results:**

This study shows the lacuna in Identification, Screening and Management of anaemia in the adolescents children studying in Telangana Social Welfare Residential Education Institution Society(TSWREIS) by the stakeholder.

**Conclusion:**The study gives the conclusion that There are many schemes initiated by the government but no proper standard operating procedures is followed.The students are not screened regular for the identification of anaemia. Problem with the identification and diagnosis of anaemia

**Keywords:** Anaemia,Haemoglobin,Nutritional status,Dietary supplements

**INTRODUCTION**

Anaemia may be a condition characterised by a decrease in the concentration of haemoprotein in the blood that results from a reduced quality or amount of red blood cells that reduce Oxygen carrying capability to tissues. Anaemia is caused by the many-sided interaction of things equivalent to diet; communicable diseases such as malaria, HIV, and soil-transmitted helminths significantly hookworm infestation; and socio-demographic and economic factors. Anaemia ends up in an impaired oxygen circulation in the blood, it's going to cause adverse maternal and birth outcomes, poor kid growth, impaired psychological feature capacity and learning ability, and reduced work productivity and financial gain earning throughout adulthood. As a result of the on top of mentioned causes, anaemia in later life will cause substantial economic loss, decrease gross domestic product (GDP), and increase treatment costs. Anaemia deeply will increase the chance of maternal and kid morbidity and mortality rate.[1]

Haemoglobin is the main protein in your red blood cells. It carries oxygen, and delivers it throughout your body. If you have anaemia, your haemoglobin level will be low too. If it is low enough, your tissues or organs may not get enough oxygen.[2]

Normal Haemoglobin (Hgb)-particular laboratory cut-offs will vary slightly, however in general, the regular levels are as follows:

- 13.5 to 18.0 g/dL in men
- 12.0 to 15.0 g/dL in women
- 11.0 to 16.0 g/dL in children
- Varied in being pregnant relying at the trimester, however commonly more than 10.0 g/dL[3]

Anaemia is a global public health problem affecting both developing and developed countries at all ages. According to the World Health Organisation (WHO), anaemia is defined as haemoglobin (Hb) levels <12.0 g/dL in women and <13.0 g/dL in men. However, normal Hb distribution varies not only with sex but also with ethnicity and physiological status.[4]

Anaemia affects a third of the world's population and contributes to multiplied morbidity and mortality, reduced work productivity, and impaired neurological development.[5]

The causes of anaemia are multiple. The major ones are a deficiency of haemopoietic factors, genetic disorders causing haemolytic anaemias, infections including malaria, and increased losses of blood caused inter alia by infections. The major haemopoietic factors are iron, folate and vitamin. Iron deficiency is widespread and is the most common cause of nutritional anaemia in women of reproductive age and young children; folate deficiency is often present during pregnancy and may also be present in young children. Hereditary haemolytic anaemias include sickle-cell anaemia where abnormal haemoglobin is present and Thalassemia which is caused by an abnormal haemoglobin metabolism.[6]

Some forms of anaemia cause specific symptoms, including:1)Aplastic anaemia: This can cause a fever, frequent infections, and skin rashes2)Folic acid deficiency anaemia: This can cause irritability, diarrhoea, and a smooth tongue.3)Haemolytic anaemia: This can cause jaundice, dark urine, a fever, and abdominal pain.4)Sickle cell anaemia: This can cause painful swelling in the feet and hands, as well as fatigue and jaundice.[7]

Anaemia is in particular due to the iron deficiency within-side the body. Iron is one of the critical minerals required by the body to perform several critical functions. The crucial feature of iron is to move oxygen from the lungs to cells in our body. Iron deficiency is a situation that arises because of a very much less quantity of iron present within-side the body. Iron is a crucial mineral which allows the manufacturing of haemoglobin through erythroblasts. Anaemia is found through the much less awareness of haemoglobin from the positive endorsed levels. According to WHO the recommended Haemoglobin level, for non-pregnant women(age 15 and over) is 120gm/L and for males (15 years and over ) it's far 130gm/L [8]

Iron is an essential element and is controlled primarily by dietary intake, intestinal absorption and iron recycling. Dietary iron can be found in two forms: haem and non-haem iron. Haem iron is easily absorbable and arises from haemoglobin (Hb) and myoglobin in the form of animal meat, poultry and fish. Non-haem iron is mostly found in plant food but is not as easily absorbable. Compounds such as phytate, oxalate, polyphenols and tannin, which are found in plants, diminish the uptake of non-haem iron, as do some drugs, such as proton pump inhibitors.[9]

Iron-deficiency anaemia is the most common trusted Source type of anaemia, and blood loss is often the cause. A shortage of iron in the blood leads to this form of the condition, and low iron levels frequently occur as a result of blood loss. When the body loses blood, it draws water from tissues beyond the bloodstream to help keep the blood vessels full. This additional water dilutes the blood, reducing the RBC count. Blood loss can be acute and rapid or chronic. Some causes of rapid blood loss include surgery, childbirth, and trauma. Chronic blood loss is more often responsible for anaemia. It can result from a stomach ulcer, cancer, or another type of tumour.[10]

Anaemia is referred to as low haemoglobin, which will cause you to feel tired and weak. There are many sorts of anaemia and every one has its cause. It can be temporary or long term and might vary from mild to severe, in most cases anaemia has over one cause. they're classified supported their morphology into Microcytic hypochromic anaemia, Normocytic

normochromic anaemia, and macrocytic anaemia. The signs and symptoms vary relying upon the causes, these embody weakness besides fatigue, the pale or chromatic colour of the skin, irregular heartbeats, shortness of breath, vertigo or light-weight headedness, chest pain, cold hands and feet, headaches, anaemia is gentle with an unremarked symptom, but over some time the condition gets worsens with symptoms.[11]

Anaemia is a serious global public health problem that particularly affects young children and pregnant women. WHO estimates that 42% of children less than 5 years of age and 40% of pregnant women worldwide are anaemic. The optimal haemoglobin concentration needed to meet physiologic needs varies by age, sex, the elevation of residence, smoking habits and pregnancy status[12]

In 2019, the anaemia prevalence was 29.9% globally, in the reproductive age of women half a billion women aged 15-49 years are affected [4]. regardless of its aetiology, WHO estimates over 1.62 billion people worldwide. mostly the pre-school children( 47%), accompanied by pregnant women(41%),non-pregnant women(30%), school-age children(25%) and those older than 60 years of age (24%), men are the least affected group(12%).[13]

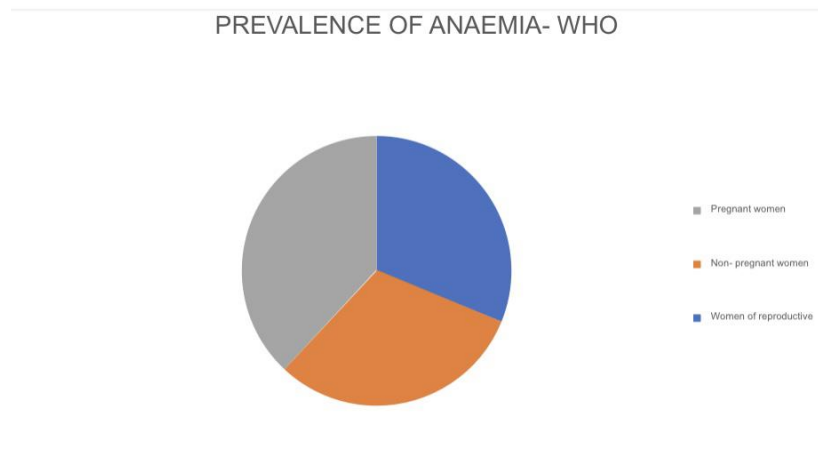


Figure-1

The maximum occurrence of anaemia is determined in Asia. About 1/2 of of all of the anaemic girls stay with-inside the Indian subcontinent in which 88% of them expand anaemia in the course of pregnancy.It is related to bad perinatal outcomes.[14]

India is one of the country in thenations with excessiveincidence of anaemia .It's farextensivelyuniversal in all age groups,being specificallyexcessivemost of themaximum vulnerable; almost 58% in pregnant women,50% amongst non-pregnant ,non-lactating women,56% amongst adolescent girls,30% in adolescent boys and round 80% in youngsters below 2 years of age. Adolescents (age 10-19 years) are at excessivedanger risk of iron deficiency and anaemia because ofmultiplied increase in necessities for iron,lownutritionalconsumption of iron, excessivecharge of contamination and worm infestation in addition to the social norm of early marriage and, adolescent pregnancy.[15]

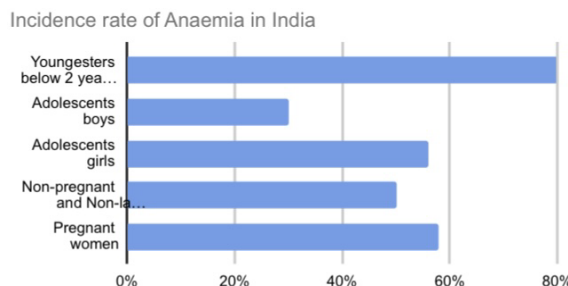


Figure-2

The national prevalence of anaemia in children is 28.8%, where the prevalence of anaemia among mothers is about 24.2%. The long-term effects of these conditions negatively affect the health of adults throughout their life, as well as their potential productivity in the work force and possible economic contribution to the nation..According to NFHS-5, the anaemia in adolescent girls increased between 54.1% and NFHS- 59.1%.[16]

In Telangana state, the Prevalence of anaemia was high. The prevalence of anaemia was observed in females (44.04%) compared to males (57.2%). The prevalence was more in reproductive age group (58.6%). Moderate anemia (58.6%) was more prevalent followed by mild anemia (36.6%). Microcytic hypochromic blood picture predominates with the incidence of 53.6% followed by normocytic blood picture 42.2%.[17]

Anaemia, as a result poses a first-rate hazard to maternal and baby survival, contributes to low delivery weight, diminished resistance if infection, poor cognitive improvement and reduced work productivity. The magnitude of anaemia collectively with the related detrimental fitness, improvement and economic consequences, spotlight the want for an intensified motion to deal with this public health problem. [18]

Anaemia has been a first-rate public health problem over the last few years. According to N Milman, "The maximum common nutrition deficiency in each growing in addition to in advanced countries is iron deficiency"[19]

Adolescence is a transitional duration from childhood to adulthood, for the duration of which positive health issues and change behaviour established among children may also have an impact on their future fitness. According to WHO, Adolescent (early life) is described as the period among 10 years and 19 years. Adolescent of each sexes are in particular prone to growing anaemia due to fast growth, in girls and women more over due to the onset of menstruation.[20]

Adolescent girls have a higher risk of anaemia due to an increased requirement, low intake of hematopoietic nutrients and low intake of a nutrient that enhance absorption of these hematopoietic nutrients.[21]

Based on WHO guideline, adolescents are said to be anaemic when the haemoglobin level is less than 12mg/dl. But, this might be affected due to the increased iron requirement, decreased iron intake, rapid physical growth, menstrual loss, and high iron demand for haemoglobin (Hb) formation. Adolescent girls are at higher risk of anaemia due to a period of physical growth, reproductive maturation, and cognitive transformations which demands high macro and micronutrients including iron[22]

Anemia has its variety of consequences. Direct effects are on growth and indirect effects are like impaired concentration, lack of attentiveness, poor memory, defective performance in the academics, and decreased attendance in the schools. Menarche is delayed, immune system is affected which leads to more episodes of infections. Increased fetal morbidity and mortality, low

birth weight, perinatal risk, increased infant mortality, and maternal mortality are some of the future consequences of anemia among the adolescent girls.[23]

Sickle cell diseases (SCDs) is an rising public health challenge ,now no longer only in India however all over the globe. It has been predicted that, among 2010 and 2050 approximately 14.2 million toddlers might be born with sickle cell anaemia. Thus ,in 2006 WHO recognised SCD as international public health problem.[24]

Anaemia is described as a reduction in haemoglobin(Hb) concentration, hematocrit ,or number of red blood cells per to litre beneath the reference interval for healthful people of comparable age ,sex, and race, below comparable environmental situations According to the WHO , for below five years kids, the edge Hb stage for being anaemic is much less than 11.0g/dl .Anaemia is a common in medical circumstance characterised via way of means of reduced Hb ranges that are inadequate for the body's demand .Anaemia proven to be a public health problem that influences low,middle,and high income countries at different ranges and incidence varies with socioeconomic status. The maximum dependable indicator of anaemia on the population stage is blood haemoglobin concentration. Anaemia as a consequence of iron deficiency has been pronounced to well increase morbidity and mortality in preschool-elderly kids and pregnant women. numerous elements make contributions to the prevalence of anaemia and almost 1/2 of of 43% the anaemia instances in formative years are because of iron deficiency. The deficiency may also end result from insufficient nutritional consumption of iron,malabsorption of iron multiplied iron demand for the duration of rapid growth in kids and persistent blood loss. different reasons of anaemia consist of folate,vitamin B12 deficiencies,malaria,intestinal helminthes,viral infections.[25]

WHO worldwide information show, that anaemia because of iron deficiency impacts about 30% of world's population and approximately 37% of school children. In Indian children ,excessive occurrence of anaemia various from 27% to 90% has been stated in unique studies.[26]

Situational analysis helps develop a basis of understanding of the environment in which a plan is delivered. It provides a common reference point for the planning process and prioritises actions. The analysis can provide an appreciation of the risks and benefits to the project and the organisations involved from the way in which the communication process is implemented. It takes a snapshot view of an organisation or situation and where things stand at a certain point in time. It is sometimes accomplished by means of a SWOT analysis (Strengths, Weaknesses, Opportunities and Threats), which examines all aspects in relation to the success or results of the project in question.[27]

Situation Analysis is a preliminary assessment of a particular situation which is inter-connected with a project to be implemented in an area. It is a process which helps to understand the situation and also to identify the gaps in the situation. Situational Analysis helps to define the nature and scope of a problem. It helps to identify the current practices and strategies to overcome the problem. It also helps to understand the opinions and experience among the stakeholders.[28]

Current anaemia control programme focusing on prophylactic iron supplementation and facility-based screening with haemoglobin estimation is inadequate to reduce the high prevalence of anaemia in India.[29]

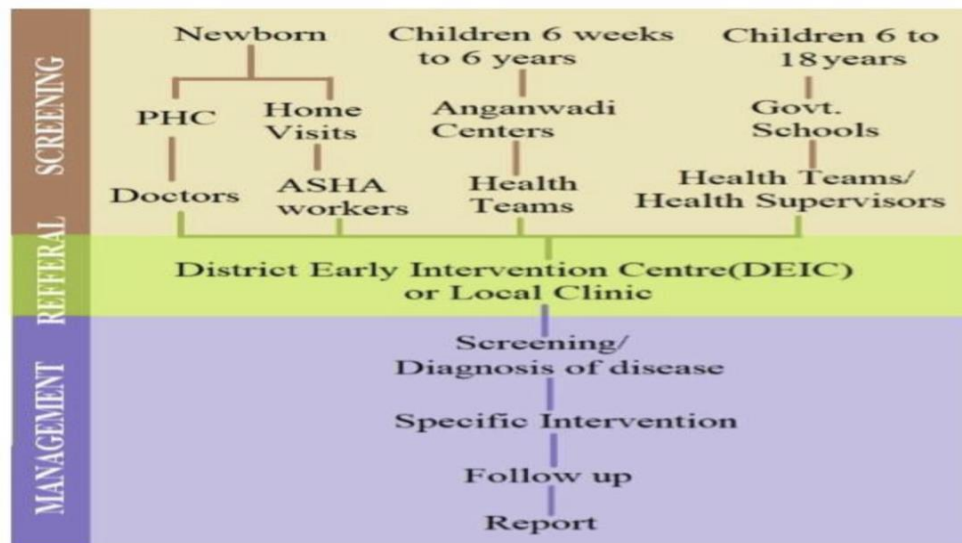
Certain key programmes are initiated by the Government of India to eradicate the prevalence of anaemia in pregnant and lactating women under the ICDS Scheme of MWCD (Ministry of women and child development) by providing supplementary nutrition and for childrens the provision of Iron and Folic acid (IFA) along with the supplementary diet has been a part of Government of India over a three decades of time.[30]

Government run programmes like Integrated Child Development Schemes (ICDS), National Nutritional Anaemia Control Programme (NNACP), Weekly Iron and Folic acid Supplementation

(WIFS), National Iron Plus Initiative (NIPI) to combat anaemia. Some of the steps done by the government to eradicate anaemia include communication campaign, testing and treatment of anaemia using Digital methods and mandatory provisions of IFA fortified foods in government programmes.[31]

Under National Rural Health Mission, Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from the time of birth to upto the age of 18 years to cover 4 main aspects like - Defects at the time of birth, Deficiencies, Diseases and Development. Under RBSK, activities like confirmation, management, referral, tracking and follow up - are planned according to the age group of the child. It is important to note that the children under the age of 0 - 6 years of age group will be specifically managed at District Early Intervention Centre (DEIC) whereas, for the age group of 6-18 years, management of the conditions will be done through existing public health facilities. DEIC will act as a referral linkages for both the age groups. Child Health Screening and Early Intervention Services under RBSK are to cover 30 selected health conditions for Screening, early detection and free management. Deficiencies include Anaemia, especially severe anaemia, Vitamin A, D deficiency, Severe acute Malnutrition and Goitre.[32]

### RBSK Screening Process:



TSWREIS society is running 500 residential institutions in Telangana under the department of Social Welfare, Government of Telangana. The society institutions run residential education from 5th class to intermediate. The top goal of the society is to offer great residential training to the communities. They additionally preserve great meals through presenting accurate nutritious meals to the children. To reveal the every day Menu, great and widespread of the meals of the schools, the society added up software program like ANNAPURNA, A Menu Monitoring Software (MMS).[33]

Child Screening below RBSK is at levels - Community degree and Facility degree. Facility degree is primarily based totally on new child screening at public fitness centers like PHC's may be performed through Medical officers, nurses and ANM's. The Community degree screening may be carried out through the Mobile fitness groups at Anganwadi Centres and Government aided Schools. Clinical Tests are done by the team of RBSK in these government and government aided schools[34]

The RBSK team will be coming to the school and they will conduct clinical tests among the students. The results will be updated in SIF note by the officers. After updating the results, if they find any problem with the student like the student is not feeling well - they again the student will be tested in the nearby PHC and will take the advice of the doctor of Synergy India Foundation as well as the doctor in the PHC. As per the doctor's advice they give a special diet to the student like they include jaggery based food items, sesame seeds laddoo, chikkies, peanuts, ragi java. Fruits like pomegranate, apple, banana - given daily, watermelon, oranges and some seasonal fruits are given. Vegetables like beetroot, carrot, green leafy vegetables, potatoes, brinjals, cabbage etc., are given. Animal sources like egg - given daily, milk - given daily, chicken - 4 times in a month, mutton - 2 times a month are also provided.[25] A holistic approach is required with special emphasis on community awareness about consequences of anaemia and benefits of Iron Folic Acid (IFA) supplementation, uninterrupted supply availability of Iron folic Acid tablets and syrups, hard to reach areas and monitoring and review system to find out adequacy in terms of participation and frequency of meetings and problem-solving.[35]

National Iron plus Initiative (NIPI) : NIPI was introduced in 2013 to reduce the incidence and prevalence of iron deficiency anemia across all life stages including adolescents and women in reproductive age group who are not pregnant or lactating. Health care providers at all levels had been identified under NIPI framework for providing comprehensive package of continuum of care along with treatment and management of anemia.[36]



The Anemia Mukht Bharat strategy is being implemented in all villages in blocks of the districts through existing delivery platforms as envisaged in the National Iron Plus Initiative (NIPI) and Weekly Iron Folic Acid Supplementation (WIFS) programme Since 2018. Anaemia Mukht Bharat Scheme is implemented in Tamilnadu in order to reduce the prevalence of anemia by 3 percentage points per year, It is a universal strategy and it focuses on the following interventions: Prophylactic Iron and Folic Acid supplementation Deworming Intensified year-round Behaviour Change Communication Campaign (Solid Body, Smart Mind) focusing on four key behaviours Improving compliance to Iron Folic Acid supplementation and Deworming, Appropriate infant and young child feeding practices, < Increase in intake of iron-rich food through diet diversity/quantity/frequency and/or fortified foods with focus on harnessing locally available resources. Ensuring delayed cord clamping after delivery (by 3 minutes) in health facilities. Testing and treatment of anemia, using digital methods and point of care treatment, with special focus on pregnant women and school-going adolescents Target group Children of 6 – 59 months age Children of 5 – 9 years age Adolescent Boys & Girls Women of Reproductive Age Pregnant women Lactating Women [37]

To achieve the targets of World Health Assembly of 50% reduction of anemia in women of reproductive age by 2025 and POSHAN Abhiyan (2018-2022) to reduce the prevalence amongst young children (6-59 months), adolescents and women of reproductive age groups (15-49 years) by three percent per year, Anemia Mukht Bharat has been designed. This has been built upon the existing framework of NIPI with special focus on intensive behaviour change communication, vulnerable geographies, procurement and supply chain management issues and others. The operational guidelines were launched by Honorable Prime Minister Shri. Narendra Modi on 14th April, 2018 in Bijepur, Chhatisgarh. The beneficiaries are children 6-59 months, children 5-9 years, adolescent boys 10-19 years, adolescent girls 10-19 years, women of reproductive age (20-49 years), pregnant women and lactating women (0-6months). The key interventions proposed to be carried out in this program are IFA supplementation and deworming; intensive IEC/BCC about nutrition awareness, appropriate IYCF practices and intake of iron rich foods: awareness, screening and treatment of malaria in endemic pockets; special focus on pregnant women and school going adolescents; iron and folic acid fortified foods in all public health facilities; delayed cord clamping after delivery (3 Minutes).[38]

Prevention practices to eradicate anaemia in Adolescent Boys & Girls (10 – 19 ) Year: Weekly 1 Iron and Folic Acid tablet is provided to the Adolescent Boys & Girls of 10 – 19 years age (School going / non school going children) in the age group of 5 to 9 years for 50 weeks in a year with biannual deworming with one tablet of Albendazole tablet 400 mg during the National Deworming days conducted once in 6 months (February and August of every year)[39]

The mid-day meal provided by the government to rural children is not enough to meet their nutritional needs. Low nutrition in children makes them anaemic and hence reduces the oxygen supply to the brain. This affects their concentration and grasping power and lowers their education level.[40]

The current study is dealing with the stakeholder - The principal. Principal are the people look after the students health, academic performance and nutritional needs of the children at these residential schools. They see the students health checkup, screening problems, and the grocery supplementation to the school, conduct meetings with the students, initiate lunch programme (mid meal programmes) and see through whether the surroundings are kept clean. They also look after the children whether they're eating properly or not, sometimes they also check whether the children are wasting any of their food in their meal and also look after the students mental health status.

**AIM:** To Study the current steps and practices on prevalence of anaemia by different stakeholders.

### **OBJECTIVES :**

- 1.To Study the prevalence of anaemia among adolescent childrens in Telangana Social Welfare Residential Educational Institutions society by different stakeholders.
2. To know certain measures and techniques in the study
3. To analyse the current situation with the help of tools and techniques

### **MATERIALS AND METHODS**

**Study design:** It is a situational-based qualitative study

**Studyarea:** The study is conducted at the Residential Institutions under the Telangana Social Welfare Residential Educational Institutions Society.

**Inclusion criteria:** principals who are working for Telangana social welfare residential educational institutions society

**Exclusion criteria :** principals who are working in private institutions are excluded . Studypopulation : principals working in the residential institutions which are under the Telangana Social Welfare Residential Educational Institutions society.

**Ethical consideration:** The opinion given by Ethical committee is justification of sample and written informed consent.

**Sample size:** Qualitative studies can reach saturation at relatively small sample sizes. 4-9 interviews can be conducted to reach saturation[41].

The sample size used in qualitative research methods is often smaller than that used in quantitative research methods. This is because qualitative research methods are often concerned with garnering an in-depth understanding of a phenomenon or are focused on meaning (and heterogeneities in meaning)—which are often centered on the how and why of a particular issue, process, situation, subculture, scene or set of social interactions.[42]

The number of people interviewed are 9 principals from 7 different districts of Telangana.

**Sampling technique :** All the principals who satisfy the above inclusion criteria will be included in the study,after obtaining a written or verbal informed consent clearly explaining the purpose significance ,use of study, expected benefits of the study and potential aims of the study and that no answer is taken into consideration.

The written informed consent consists of two questions, whether the principal understand the aims of the project and agree to it.

### **METHODOLOGY**

Anaemia happens when you do not have enough red blood cells.The cells travel with iron and haemoglobin, which is a protein that helps carry oxygen through the blood stream to your organs all through the body.In the country India,Anaemia is the most common deficiency of iron which causes the occurrence of many maternal deaths,still births,increase the rate of mortality and motality of the infants during labour period.Anaemia is mostly seen in adolescents girls.

To know the gap and root causes of anaemia in adolescents girls studying in Telangana Social Welfare Residential Educational Institutions Society (TSWREIS) the following methods has been conducted in this study.

1. Identification of selected districts - 33 districts of Telangana are graded as good, moderate, poor for prevalence of anaemia based on NFHS-5 indicators, 20% from each is selected to form a target district.

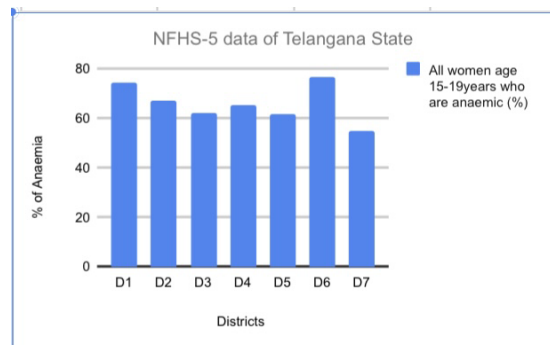


Figure-3

2. Approach to stakeholders( PRINCIPALS)-obtaining an informed consent on securing information from stakeholder.
3. A detailed interview was conducted with the stakeholder(principals of selected districts) by Focus group discussions (FGDs) method.
4. Recordings were taken as needed for non-verbal observations
5. The stakeholders were generally probe to discuss topics related to Anaemia monitoring ,individual perceptions , procedures,treatment and care ,prevention and practices, suggestions and innovations. From this discussions,we got to know about their roles and responsibilities and the initiatives they have adopted in the schools. The challenges they faced were also asked and noted.
6. The interview conducted with the stakeholders by FGD method helped in to know the right cause of anaemia in adolescents girls and boys.
7. The interviews were expected to last between 15 questions. Only researchers and the study participants present for the interviews
8. Semi-structured,open-ended exploratory questions (designed to address the research question) were used to obtain relevant context information.
- 9.Responses were recorded by audio recording device and hand-written field notes to capture each response to fullest.
10. After completion of the interview,the information is gathered based on the current situation provided by the stakeholders.
11. The data was recorded and transcribe into a word document and the risk factors was noted in a excel sheet.
12. All the data was analysed using qualitative analysis by tools (interventions , innovations )
13. Conceptualise the information by the data gathered on the current prevalence.
14. Transcripts are readed by researchers and new information is obtained, and data saturation is reached.
15. Then qualitative analysis is done identifying the Strengths, Weakness, Opportunities and Threats - SWOT analysi

## RESULT

As the interview is completed with the stake holders (principals),the study got many different answers form the respondents.The data collected is divided into three parts-identification of anaemia, management of anaemia ,and follow up.The study is also applicable for boysstudents so a stakeholder from boys schools said there is no cases of anaemia but some may rarely show sickle cell anaemia cases.The results are then followed by answers quoted by the stakeholders (respondents) their problems and a probable solutions are given.

**CURRENT PRACTICES:** Ongoing current practices in Telangana social welfare residential educational institutions society are the following:

- Monthly check up of the students
- Students are ought to do morning exercises and yoga.
- Management of diet and providing supplementation of special food groups

#### **Early identification:**

From the Focus group discussion (FGD) which was conducted with the school principals, their roles and responsibilities were known in identifying anaemia in students, issues they are facing, their challenges, suggestions and innovations have to be made to eradicate anaemia in students. In the perspective of school principals, the identification test of anaemia in childrens is conducted before joining the school the parents were asked to do all the required blood test of students and handover the reports to the school principal from these they got to know the actual count of anaemic students and after the admission is done the students are screened and do weekly or monthly health checkups by the health supervisor present in the school. The students are easily identified by their physicals signs and symptoms like fatigue, weakness, poor academic performance and their clinical indications like pale skin color, sunken eyes, tongue and nails are easily screened to know the anaemia in childrens.

#### **Challenges:**

- The main problem is lack of knowledge and skills in identifying anaemic students in these particular stakeholders. Even when there are symptoms seen in the children, principals cannot identify the children with only the symptoms.
- Screenings are not done regularly which is one of the main reasons leading to delayed identification of anaemia.

#### **Probable Resolutions :**

- Training has to be given to the assistant care takers to know more about the symptoms, causes, complications and importance of proper management of anaemia in girl students.
- There should be standard operating procedures to empower anaemia.
- More screenings need to be done from either the PHC's, NGO's , or RBSK.

#### **MANAGEMENT:**

They conduct life saving group meetings (LSGs), Healthy Tuesday in the schools.

Special diet is given to the students who are anaemic. Principals will look after the students whether they are eating the food completely or not. They assigned mess leaders to check if the students are eating or wasting the food. They are leaders at each table to look after the students. Vegetables like beetroot, carrot, green leafy vegetables, potatoes, brinjals, cabbage are given. Fruits like pomegranate, apple, banana - given daily, watermelon, oranges and some seasonal fruits are given. Ragi java, peanuts, jaggery based food items, sesame seeds laddoo, chikkis are also given. Animal sources like egg - given daily, milk - given daily, chicken - 4 times in a month, mutton - 2 times in a month are also provided.

Many Principals mentioned that there were no such challenges they faced. One of them also mentioned that they will send the student to their house if they are severe and will only allow them once they check their blood report. Some mentioned that since HS are present, they will see through the students and HS inform principals to give a special diet to those students who are anaemic. Provision of healthy and nutritious diet to the students

- Intervening immunity booster ,inclusion of seasonal fruits, non-vegetarian food sources , iron-rich food sources
- Supplementing IFTs and folic acid tablets ,iron injection to the anaemic students
- Life saving groups (LSGs) meetings is conducting every week
- Blood transfusion is suggested by the doctors for the very severe anaemic students
- Anaemic students are identified by blood tests and their performance in the class
- There won't be anaemia cases seen in boy's school, but there will be some minor accidents and skin allergies are mostly found in boys and house teachers manage to take them to hospital
- Mental health of the students is also taken into consideration Challenges :
- Their academic performance gets disturbed
- Intake of iron supplements on empty stomach can be problematic and worsen the health of the students
- Students feel uneasy and tired, poor performance in academics
- Lack of interest by Students in food eating There is no knowledge to the students about

- anaemia, where they give up certain foods which are good sources of iron.
- Some students won't participate in any games/programmes.

#### **Probable Resolution :**

- There should be proper standard operating procedures for the management of these anaemic students.

#### **Follow up**

The follow up is conducted through meetings and interacting the students weekly once at the assembly. Healthy Tuesday and life saving groups meetings is also being conducted in the schools, counselling with parents and students, providing the knowledge of nutrition and initiating health programmes in the schools are done as a part of follow up. They look after the health reports of the students.

- In LSGs meetings the health status is discussed with the house teachers and health supervisors
- Balancing proper food maintenance and physical activity can improve the health of the students.
- There are camps held for every 2-3 months, a CBP is done to the students
- Special diet is provided including carrot, pomegranate, boiled egg, peanut chikki weekly
- once
- Every student will be given same diet but extra care is taken for anaemic students
- Counselling the students, educating and informing their parents about their health status
- Assistant care taker health supervisors are specially take care for anaemic students and
- look after their diet
- Challenges:
- Ignorance from parents due to poor family background
- Their academic performance gets disturbed
- Students feel uneasy and tired, poor performance in academics

#### **Probable Resolutions :**

- There should be some programmes creating awareness among students regarding anaemia, causes, symptoms, complications etc., which makes the students understand more about the condition.
- In the special diet, there should be enough iron rich foods. The students need to exercise daily by showing them some drills of exercising and also should create awareness about the importance of exercising daily.
- The students need to participate in some of the extra-curricular activities, games etc., to make them stay active and healthy.
- There should be awareness programmes on anaemia to inform the students about the disease condition so that the students themselves will wash their hands, cut their nails and will be clean and tidy.
- Some of the respondents suggested that they tell the students to eat proper, healthy and nutritious food, so that they are not affected with any diseases.
- One respondent suggested that they tell the students to be clean and tidy and make them exercise daily.

#### **Discussion**

The main aim of this study is to know the current practices and prevalence of anaemia among children belonging to Telangana Social Welfare Educational Institutional Society in the Principal perspective's. . With the data collected from Principals,, it is prominent that anaemia is prevalent among children during their adolescence and it has been increasing due to lack of awareness. As there is no proper standard operating procedures for the management of these anaemic students- principals are not able to identify whether the students are anaemic or not visually. As the number of screenings not done this year, there is no particular number of anaemic students. The results showed that screenings are not done regularly where there is no special care given to those who are anaemic. As we all know that anaemia is a severe public health problem, we need to stop the prevalence at the very starting stage among the children. In future, these children will grow upto adults which causes complications in their maternal health and their offspring's health if they are anaemic. So the right way

to avoid the prevalence is firstly to create awareness among the students. To make them understand about the causes, symptoms and complications of the disease condition. To guide them about the foods rich in iron. To make them wash their hands regularly to avoid any infection. Exercise daily to be active and healthy. To make sure the students eat all kinds of fruits and vegetables. More screenings are to be done by the PHC's, NGO's, RBSK team to identify the students who are anaemic.

## CONCLUSION

The aim of the study is to know the certain gaps in the prevalence of anaemia in adolescents children studying in the residential school of Telangana state.

From these study it is concluded that the followings reasons:

- There are many schemes initiated by the government but no proper standard operating procedures is followed.
- The students are not screened regular for the identification of anaemia.
- Problem with the identification and diagnosis of anaemia
- PHC advises is not properly taken up by the incharges, negligence and in consent by parents

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