If the iron deficiency is prolonged, the function of heart is also impaired and respiratory enzymes and onset of menses in females. Anaemia is the most common haematologic abnormality of the adolescent girl is still a developing child. Although both adolescent boys and girls are affected by iron deficiency anaemia, medically known as IDA. While 56 per cent of adolescent girls are anaemic, boys too are falling prey to the disease. Around 30 per cent of the world’s population is estimated to be suffering from the deficiency anaemia with the highest prevalence rates being seen in developing countries. Two-thirds of children and women of child bearing age in most developing countries were estimated to suffer from iron deficiency anaemia.

India has one of the fastest growing youth populations in the world, with an estimated 190 million adolescents. Girls below 19 years of age comprise one quarter of India’s rapidly growing population. The majority is out of school and has limited choices available for the future. Girls are caught in the cycle of early marriage, repeated pregnancy and poverty.

Adolescence in India goes hand in hand with iron-deficiency anaemia, medically known as IDA. While 56 per cent of adolescent girls are anaemic, boys too are falling prey to the disease. Around 30 per cent of adolescent boys are suffering from anaemia.

Although both adolescent boys and girls are affected by iron deficiency anaemia, the girls for biological reasons have a higher risk of suffering from iron deficiency. Women and girls need more iron than men because of menstruation, pregnancy, lactation and other demands on their body’s iron supply. Insufficient iron in the diet leads to anaemia.

NEED OF THE STUDY
Adolescence is a time of major physical, cognitive and psychological growth and development. The blossoming of adolescence in each generation is a fascinating sight, predictable and repetitive yet none the less enchanting. The hallmark of adolescent years is change. There exists a general feeling in the society that adolescent years are normally free from major health problems. On the contrary it is a crucial period because an adolescent girl is still a developing child.

Anaemia is the most common haematologic abnormality of adolescence. The adolescent’s need for iron increases, because of changes in lean body mass, expanded blood volume, increased respiratory enzymes and onset of menses in females.

If the iron deficiency is prolonged, the function of heart is also impaired, because of an excessive oxygen demand. It will increase the extra workload of the heart, so it can produce myocardial infarction and angina in the later years. Complications of iron deficiency anaemia should be prevented strictly, to create a healthy human being.

In Indian situation, there is a limited provision of school health nurse. Hence the investigator felt the great need for screening adolescents for anaemia. This can even sensitize school authorities who can further take the action for improvement of school health services.

India was among the fastest developing countries to have taken up the National Anaemia Prophylaxis Programme (NAPP) in 1970 to prevent anaemia among women and children through distribution of iron and folate tablets. However due to various reasons like irregular supply chain and poor compliance, the programme has not made an appreciable dent in prevention of anaemia. Hence it prompts us to take other alternatives.

OBJECTIVES OF THE STUDY
1. To develop a planned teaching programme (PTP) on prevention and control of anemia and practices of adolescent school children regarding prevention and control of anemia.
2. To determine the prevalence of anemia among adolescent school children before and after the administration of planned teaching programme (PTP) on prevention & control of anemia.
3. To assess the knowledge of adolescent school children before and after the administration of planned teaching programme (PTP) on prevention & control of anemia.
4. To assess the practice of adolescent school children before and after the administration of planned teaching programme (PTP) on prevention & control of anemia.
5. To determine the relationship between post-test knowledge and practices of adolescent school children regarding prevention and control of anemia.

HYPOTHESIS
H₀: The mean post-test knowledge scores of adolescent school children regarding prevention and control of anemia will be significantly higher than their mean pre-test knowledge scores as evident from structured knowledge questionnaire at 0.05 level of significance.
H₂: The mean post-test practice scores of adolescent school children regarding prevention and control of anemia will be significantly higher than their mean pre-test practice scores as evident from structured practice questionnaire at 0.05 level of significance.

H₃: There will be a significant relationship between post-test knowledge and practice scores of adolescent school children regarding prevention and control of anemia as evident from a structured knowledge and practice questionnaire at 0.05 level of significance.

RESEARCH METHODOLOGY
Research approach
An evaluative research approach was carried out the study.

Research Design:
The research design selected for the study was pre-experimental one group pre-test and post-test design.

Variables under the study
Independent variable – Planning teaching programme for adolescent students regarding prevention and control of Anemia.  
Dependent variable – Hb level, Knowledge and practice regarding prevent and control of Anemia among adolescent school students.

Setting for the study:
The present study was conducted in selected Government school of Rajasthan.

Population:
In the present study the target population were adolescent school children (both boys and girls) studying in class IX of selected school of Rajasthan.

Sample:
The samples of the study were selected adolescent school children (boys and girls) of class IX from selected Govt. schools of Rajasthan.

Sampling technique:
Multi stage sampling technique method.

Sample size:
Sample size consists of 100 adolescent school children both boys and girls.

Criteria for selection of sample:
• Adolescent school children of IXth class.
• Adolescent school children who were willing to participate.

Description of the tool:
Part –I: Demographic data comprised of 15 items.  
Part –II: Knowledge test comprised of 35 items.  
Part –III: Practice test comprised of 15 items.

Data analysis:
The collected data was analyzed by using both descriptive statistics and inferential statistics.

Major findings:
• Majority (60%) of the adolescent school children were anaemic.  
• Maximum (37.16 %) of them lived in joint families.  
• Majority (50.83.3%) of the adolescent school children were vegetarians.  
• Among female adolescent majority (33.68.75%) had started their menstruation at the age of 12-13 years.  
• Maximum (23.47.92%) of them had their menstrual cycle between 3-5 days.  
• Maximum (22.45.83%) of the female adolescent school children had excessive flow of menstruation.

FINDINGS RELATED TO PREVALENCE OF ANAEMIA
The data indicates that majority (61.67%) of adolescents had mild anaemia and 35% of them had moderate anaemia. It also indicated that (3.33%) of adolescents had severe anaemia.

FINDINGS RELATED TO THE PRE-TEST KNOWLEDGE AND POST-TEST KNOWLEDGE SCORES OF ADOLESCENT SCHOOL CHILDREN REGARDING PREVENTION AND CONTROL OF ANAEMIA
The bar diagram showed the distribution of knowledge scores of adolescent school children in the pre-test and post-test. The mean post-test knowledge score (27.25) of adolescent school children was higher than their mean pre-test knowledge score (18.66) indicating increase in the knowledge of adolescent school children.

FINDINGS RELATED TO THE PRE-TEST AND POST-TEST PRACTICE SCORES OF ADOLESCENT SCHOOL CHILDREN REGARDING PREVENTION AND CONTROL OF ANAEMIA
Table -1

<table>
<thead>
<tr>
<th>Practice scores</th>
<th>Mean</th>
<th>Median</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>7.75</td>
<td>7</td>
<td>2.18</td>
</tr>
<tr>
<td>Post-test</td>
<td>12.08</td>
<td>12</td>
<td>1.30</td>
</tr>
</tbody>
</table>

N=60

*Maximum score=15

The data presented in Table-1 shows that the mean post test practice scores (12.08) of adolescent school children was higher than the mean post-test practice scores (7.75) which suggested the effectiveness of planned teaching programme (PTP) on prevention and control of anaemia.

The findings also show that the standard deviation of post test practice score (1.30) was less than the standard deviation of pre-test practice score (2.18). This indicates that the post-test practices scores were more homogeneous than the standard deviation of pre-test practice scores. The pre-test practice score was with a mean of 7.75 and median 7. The post-test had a mean of 12.08 and median 12.
The data presented in Table-2 shows that mean post test practice score (12.08) was significantly higher than the mean pre-test practice score (7.75) suggesting that the planned teaching programme (PTP) was effective in increasing the practice scores. The obtained mean difference (4.33) was found to be statistically significant at 0.05 level of significance as evident from the ‘t’ value (15.46) for df (58) at 0.05 level of significance.

DISCUSSIONS

The findings of the present study revealed that high prevalence of anaemia among adolescents. More than half (60%) of the total adolescents were anaemic. The findings of the study are to some extent consistent with the study done by Verma, et al. (1998) had also reported more than half (51.5%) of the children in the urban school of Punjab had anaemia.

The findings of the present study also revealed that there were significant gain in knowledge and practice of adolescent school children after the administration of planned teaching programme (PTP), which showed the effectiveness of PTP in increasing the knowledge and developing correct practice towards prevention and control of anaemia. The findings of the study are to some extent consistent with the study done by Kala K 2010 in her study revealed that structured teaching program was found to be effective in improving the knowledge and attitude of adolescent girls.

Thus the study suggested that there is need to have survey on regular basis to assess the prevalence of anaemia and measures should be taken to prevent adolescent school children from iron deficiency disease.

ACKNOWLEDGEMENT:
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