Knowledge and attitude of urban and rural adolescent girls regarding anemia

Krishna Sharma, YD Stella and Atul Joshi

Abstract
Anemia is a major public health problem worldwide, particularly in women of Reproductive age group of developing countries. Iron deficiency is believed to cause the largest part of anemia globally. The purpose of this study was to assess the knowledge and attitude of urban and rural adolescent girls regarding anemia. A Non-experimental descriptive comparative research design was adopted on 60 adolescent girls. Stratified random sampling technique was used to select samples. Knowledge and attitude of urban and rural adolescent girls regarding anemia was assessed by structured knowledge questionnaire and attitude scale (Likert scale) and practice questionnaire. The analysis and interpretation of data collected from 60 adolescent girls of higher secondary school of urban and rural area of Indore, M.P. Descriptive and Inferential statistics were used for analysis; descriptive statistics have been used to present the features and characteristics of the samples while inferential statistics have been used to draw valid inferences from the collected data. The result was positive urban area pre-test score was 17.9, and rural area pre-test score was 13.36 and their mean difference was -4.54. The SD of urban area pre-test score was 5.74, Rural area pre-test score SD 6.68. This data shows that the pre-test knowledge score of urban area is higher as compared to pre-test knowledge score of rural area study.

Keywords: Attitude, urban, rural adolescent girls

Introduction
Pregnancy is one of the most important time in the life of women. It is paramount importance that her nutritional levels be high at this time. Since the fetus needs to be well-nourished and the mother herself needs to remain healthy to take her through pregnancy, delivery and the lactating period.

Maternal mortality is a major problem in the developing world. Nearly 60,000 women die each year as a result of complication in pregnancy and child birth. Most of this death could be prevented with fewer resources (who, 2006). The worldwide maternal mortality ratio is estimated to be 390 per 10,000 live births, while in India it is 27 per 10,000 live births. Most of these occur in developing countries were women have a risk of dying in pregnancy and child birth that is 50-100 times greater than that of women in developed countries.

Anemia is a major public health problem worldwide, particularly in women of Reproductive age group of developing countries. Iron deficiency is believed to cause the largest part of anemia globally.

About 2 billion Persons in the world suffer from iron deficiency and its anemia. Fourth report on World Nutrition Situation reports that in developing countries 56% of pregnant women, 53% of school age children and 44% of non-pregnant women suffer from iron deficiency anemia. The prevalence of anemia in developing countries is three to four times higher than the industrialized countries. South East Asian countries have the highest prevalence of anemia, with almost 80% of pregnant women in this region being anemic.

Adolescent period is defined by the WHO as the period of life spanning the age between 10 to 19 years. This is the formative period of life when the maximum amount of physical, psychological, and behavioural changes take place. This is a vulnerable period in the human life cycle for the development of anemia, which has been constantly neglected by public health programs. Anemia is one of the India’s major public health problems affecting all societies, especially most prevalence among adolescent girls.

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Girls are more likely to be a victim due to various reasons. In a family with limited resources, the female child is more likely to be neglected. She is deprived of good food and education, and is utilized as an extra working hand to carry out the household chores. The added burden of menstrual blood loss, normal or abnormal, precipitates the crises too often. This study was planned to highlight the problem of anemia in adolescent females and to study socio-demographic factors related to anemia.

**Aim**
To assess the knowledge and attitude of urban and rural adolescent girls regarding anemia.

**Objective of Study**
- To assess the knowledge and attitude regarding anemia among urban adolescent girls of selected higher secondary school.
- To assess the knowledge and attitude regarding anemia among rural adolescent girls of selected higher secondary school.
- To compare the knowledge and attitude regarding anemia among urban and rural adolescent girls of selected higher secondary school.
- To find the co-relation between the knowledge and attitude.
- To find the association between knowledge and attitude score with their demographic variables. (Age, religion, residential area, types of family, education of father and mother, occupation of father and mother, monthly income of the family, have you any information regarding anemia, source of health-related information.)

**Materials and Methods**

**Study Design:** Descriptive comparative research design

**Study Area:** selected high secondary schools of Indore, M.P.

**Sample Size:** 60

**Selection Criteria of Sample:** Adolescent girls studying at selected high secondary schools of Indore, M.P.

**Sampling Technique:** Non-Probability Convenient Sampling Technique.

**Study Population:** Adolescent girls studying at Talent Higher secondary school and Govt Higher secondary school of Indore and khudel, M.P.

**Inclusion Criteria**
The adolescent girls who are studying in higher secondary school. The adolescent girls who will be available at time of data collection. The sample who know to read and write English and Hindi.

**Exclusion Criteria**
The adolescent girls who are not willing to participate. The adolescent girls who are not available at the time of data collection.

**Description of The Tool**

**Section I:** Demographic data
it includes Age, religion, residential area, types of family, education of father and mother, occupation of father and mother, monthly income of the family, have you any information regarding anemia, source of health-related information.

**Section II:** (Structured knowledge Questionnaire)
Deals with 30- items of structured knowledge questionnaire, which mainly deals with Introduction, definition, cause, signs and symptoms, types of anemia, treatment, preventive measures.

**Section III:** (Attitude scale)
Deals with 30 items of attitude scale which mainly deals with attitude towards the Introduction, definition, cause, sign and symptoms, types of anemia, treatment, preventive measures.

**Method of Data Collection**
After identifying the sample, objectives of the study were discussed and consent of participation in the study was taken from the selected group. The investigator assured the subjects about the confidentiality of the data. The investigator introduced self and a structured knowledge questionnaire on anemia for the knowledge score and attitude scale. The duration of data collection for each sample was 30 minutes. During the knowledge score and attitude scale the participants were seated away from each other and discussion was not allowed to prevent contamination. After conducting the knowledge score and attitude scale of rural higher secondary schools students then conduct knowledge score and attitude scale of urban higher secondary schools students. After collecting the knowledge score and attitude scale the investigator conveyed heartfelt gratitude towards the participants for their cooperation.

**Results, discussion and conclusion:**

**Section I**

**Baseline characteristics of anemia**

**Urban Area**
The majority of the subjects 17 (56.67%) belongs between 15-16 years of age with religion 22 (73.33%) are Hindu, The majority of students 30 (100%) from urban area. And 16 (53.33%) are coming from nuclear family. The majority of 14(46.67%) students father were graduate and 10(33.33%) students mother were graduate and students father were professional 20 (66.67%), with skilled mother 12 (40.0%), The majority of monthly income were 15001 to 20000 are 20 (66.67%), The data shows that 15(50%) subjects had received knowledge on anemia from Internet.

**Rural Area**
The majority of the subjects 18 (60.0%) and religion 25 (83.33%) are Hindu, The majority of subjects 30 (100%) from rural area. The majority of 22(73.33%) are coming from joint family, The majority of 15(50.0%), 20(66.67%) students father and mother were have primary education, The majority of monthly income were 10001 to 15000 15 (50.0%), The majority of the samples yes, have information regarding anemia 20(66.67%), The data shows that 15(50%) subjects had received knowledge on anemia from newspaper, 08 (26.67%) from Internet.

**Section 2:** Knowledge scores among sample characteristics of Urban & Rural area.
Section 3

Fig 3: Bar diagram showing Area wise comparing the level of knowledge urban area adolescent girls and rural area adolescent girls by the Mean, Mean % and SD.

Section 4

Fig 4: Bar diagram showing area wise comparing the level of attitude among urban adolescent girls and rural adolescent girls by the Mean, Mean % and SD.

Table 1: Correlation between knowledge and attitude score of urban and rural adolescent girls on anemia.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Urban adolescent girls</th>
<th>Non-Significant</th>
<th>Rural adolescent girls</th>
<th>Non-Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge attitude</td>
<td>Mean</td>
<td>SD</td>
<td>R Value</td>
<td>p&gt;</td>
</tr>
<tr>
<td>p&gt;0.933</td>
<td>17</td>
<td>5.74</td>
<td>-0.019</td>
<td>13.36</td>
</tr>
</tbody>
</table>

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Section 5
Association between knowledge score and attitude score regarding anemia with selected demographic variables of urban area with demographic variables: - It is statistically tested by applying chi-square test. Study shows that Age, Religion, Residential area, Type of family, Educational status of the father, Educational status of the mother, Occupation of the Father, occupation of the mother, Monthly income of the family, Have you any information regarding anemia, Source of health related information shows these are in significant at the level of 0.05% significance.

Association between knowledge score and attitude scale knowledge and attitude regarding anemia with selected demographic variables of rural area with demographic variables: - It is statistically tested by applying chi-square test. In the above table it shows that Age, Religion, Residential area, Type of family, Educational status of the Father, Educational status of mother, Occupation of the father, Occupational status of mother, Monthly income of the family, Have you any information regarding anemia, Source of health related information shows these are insignificant at the level of 0.05% significance.

Implications of the study
The findings of the study have implications not only in the field of obstetrical & gynecology but also in the field of community health and preventive medicine. This study also brought out certain facts that have implication for nursing, in the areas of practice, education, administration and research.

Nursing Practice
Adolescent girls of higher secondary school need to be equipped with advanced knowledge and practice about anemia to become involved in providing the necessary knowledge on anemia to her peer group and family members. In order to motivate and encourage the adolescent girls of higher secondary school to spread awareness in her community area. Adolescent girls of higher secondary school through their own training acquire a positive attitude and should equip themselves with a sound base of knowledge which they can use in daily life.

Nursing Education
With changing health care trends nursing education must emphasize on prevention and then cure and thus, empowering the prospective nurses to be well prepared to pregnant women in safe delivery.

The basic training of nurses in India includes knowledge on anemia should update as part of the course, in OBG nursing. Theoretically the focus should be on prevention of maternal and infant mortality rate.

However specialty oriented courses are offered at the master level. Training programs for nurses however, need to be improved, professional knowledge and practices to provide quality care to the patient.

Nursing Administration
In the event of ever changing disease manifestations, knowledge explosion, technological and ever-growing challenges in nursing, the administration has a responsibility to provide nurses with substantial continuing education opportunities. Necessary administrative support should be provided for the development of such educational materials, nursing personnel should be motivated to devote their time for development educational material such as posters pamphlets, planned teaching, and booklets on anemia. There is a genuine need for continuing education of nursing students, particularly for those who are working in hospital departments dealing with the mothers in gynecological ward. In India at present, short-term education courses are conducted at times for practicing nurses.

Nursing research
There is a need for extensive research in this area so that strategies can be developed for educating the student nurses those who are working in gynecological ward about anemia. The nurse researcher should be able to conduct the research at various aspects of awareness and management of anemia so as to generate more scientific data. Findings of this study will provide the baseline data about anemia and nursing care strategies adopted to educate the nursing students of gynecological ward about the anemia and it can be used for further the research.

Recommendations
- The findings can be replicated on large sample size thereby findings can be generalized for a larger population.
- A study could be done to find out the awareness of antenatal mother in community regarding anemia.
- A self-instructional module could be conducted for staff nurses and its effectiveness could be evaluated

Conclusion
This study concludes that knowledge score of rural adolescent girls are poor compare to urban adolescent girl regarding anemia. There is rigors need to assess the health status of urban and rural adolescent girls. Hence this is primary need of society to conduct nutritional status educational programs in colleges as well school. This wills broad the scope of community nurses to empower the community health status.

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