Knowledge, Attitude and Practice Change about Anemia after Intensive Health Education among Adolescent School Girls of Delhi: An Intervention Study

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ABSTRACT

Background: Anemia is very common worldwide among adolescent girls. WHO Regional office for South-East Asia sketched that “Iron deficiency anemia is the most glaring nutritional deficiency, with no less than 25-40% of adolescent girls as victims of moderate and sometimes severe anemia. In countries of this region, at least 40-50% of adolescent pregnant women are anemic.” According to study conducted by Indian Council of Medical Research adolescent girls from 16 districts of 11 states of India showed that, the prevalence of anemia was 90.1% and 7.1% having severe anemia (Hb < 70 g/L). Adolescence being a rapid transition phase with high requirement of additional nutrition. Anemia among adolescent girls develops due to accelerated increase in the requirements for iron, coupled with poor dietary intake, menstrual loss high rate of infection and worm infestation. Objectives: This study was carried out to assess the knowledge, attitude, practice and health seeking behavior change regarding anemia after weekly iron folic acid supplementation and intensive health education among adolescent school girls of Delhi. Materials and Methods: This was an intervention study conducted among adolescent school girls of Delhi. The study was conducted among 106 adolescent school girls of XI class by administering a pre-tested questionnaire based on the following four domains – knowledge, attitude, practices and health seeking behavior regarding anemia. Weekly Iron Folic Acid Supplementation (WIFS) and intensive health education was given for six months as an intervention. Health education package included power point presentation, pamphlets and visual display of iron rich foods like green leafy vegetables, germinated pulses (sprouts), citrus fruits and jaggery. Data entry and analysis was done using SPSS software version 17. Results: Only 34.9 percent girls had heard about anemia and 38.9 percent felt that anemia is a health problem. When asked for the reasons for anemia, around 8 (75%) could answer correctly. There was change in knowledge, practices and health seeking behavior after the intervention and was statistically significant. Conclusion: WIFS and intensive health education intervention has an impact on improving knowledge, attitude, practices and health seeking behavior of adolescent school girls. Additional nutritional interventional research is needed to reinforce good practices to prevent anemia. Key words: Knowledge, Anemia, Adolescent, Health education.

INTRODUCTION

The magnitude of anemia as a health problem is enormous among adolescent girls worldwide especially developing countries. Adolescent girls (10–19 years) are at a high risk of iron deficiency anemia due to accelerated increase in requirement, poor dietary intake, physiological losses like menstrual blood losses, high rate of infection and worm infestation as well as the consequence of early marriage and adolescent pregnancy. Anemia in adolescent girls in future attributes to high maternal mortality rate, high incidence of low birth weight babies, high perinatal mortality as well as fetal wastage. Hurdles related to the building of iron stores during pregnancy provide a strong rationale for health education concerning the iron status of women before pregnancy. Hitherto, adolescents remain a largely abandoned and hard-to-reach population, in which the needs of adolescent girls in particular, are often disregarded. It can be engaged by increasing awareness and the promotion of correct attitudes and practices about anemia. There is lack of appropriate knowledge and attitude regarding healthy eating among adolescents and consequent unhealthy eating behavior. The majority of adolescents can be reached effectively through schools, which is an appropriate place for health education. This study was carried out to assess the Knowledge, Attitude and Practice (KAP) and health seeking behavior change regarding anemia after weekly iron folic acid supplementation and intensive health education among adolescent school girls of Delhi.

MATERIALS AND METHODS

This was an intervention study conducted among adolescent school girls of Delhi. All government senior secondary schools in that district were included.
The results of this study showed that knowledge about anemia was inadequate in the current study population. Similar observations were noticed in other studies.14,15 On the contrary, one study showed that 90.7% of Indian adolescent girls had correct knowledge concerning the cause of iron deficiency anemia.16 Knowledge being poor, attitude being negative and practice being unsatisfactory were identified and health education was given through various forms. Similar results regarding knowledge attitude and practice was seen in the study conducted in urban slum of Karnataka among adolescent girls.10 Dietary knowledge in relation to prevention of anemia was poor among the school girls. More than seventy percent girls did not know increase in the hemoglobin levels. More than seventy percent girls did not know increase in the hemoglobin levels. More than seventy percent girls did not know increase in the hemoglobin levels.
dietary iron will reduce the prevalence of anemia. One of the most important reasons of IDA is lack of nutritional knowledge and consequently improper practice to prevent anemia. It is a documented fact that inadequate and improper food intake adversely affects the growth of the adolescent girls coming from the unprivileged sections of the community. Dietary knowledge plays important role in prevention of anemia. Significant number of adolescent girls showed poor hygiene practice in the current study. Similar observations were made in study conducted in Bangladesh. There was significant improvement in the hygiene practices like washing hands with soap before eating, after defecation and avoiding bare foot walking outside home after intervention. Also some studies have emphasized on the importance of hand washing in their studies. However, the study revealed that more than two thirds of the respondents did not wash their hands with soap and water neither before eating nor after defecation. These observations are very convincing and optimistic toward the effective implementation of the existing national programs. The national health program to prevent Iron deficiency anemia under National Iron plus Initiative for Anemia control under which Weekly Iron Folic Acid supplementation will provided to adolescent girls aged 10-19 years in school and Anganawadi can have better outcome if health education is given along with iron supplementation.

CONCLUSION

In this study, adolescent school girls had inadequate knowledge on anemia prevention with regard to four domains including knowledge, attitude and practices (definition, causes, signs and symptoms, treatment) and health seeking behavior. There was a significant improvement in the knowledge regarding anemia among adolescent girls after health education as an intervention. WIFS and intensive health education intervention has an impact on improving knowledge, attitude, practices and health seeking behavior of adolescent school girls. School can be an essential, effective and efficient place to implement a comprehensive health education program which would further facilitate in reducing the disease burden. Additional nutritional interventional research is needed to reinforce good practices to prevent anemia.

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CONFLICT OF INTEREST

The authors declare no conflict of interest.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean ± SD</th>
<th>Mean Difference (95% CI)</th>
<th>Paired ‘t’ test value</th>
<th>Table 2: Mean score change in KAP regarding anemia after intervention.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Post-intervention</td>
<td>Pre-intervention</td>
<td></td>
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<tr>
<td>Knowledge</td>
<td>19.89 ± 2.24</td>
<td>9.3 ± 3.76</td>
<td>1.05 (9.92 – 11.24)</td>
<td>31.58</td>
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<tr>
<td>Practice</td>
<td>4.83 ± 0.54</td>
<td>3.56 ± 1.99</td>
<td>1.27 (0.93 – 1.61)</td>
<td>7.38</td>
</tr>
<tr>
<td>Health seeking behavior</td>
<td>3.00 ± 1.20</td>
<td>0.14 ± 0.56</td>
<td>2.85 (2.75 – 11.24)</td>
<td>52.58</td>
</tr>
</tbody>
</table>

ABBREVIATIONS

WIFS: Weekly Iron Folic Acid Supplementation; IDA: Iron Deficiency Anemia; KAP: Knowledge, Attitude and Practice.

REFERENCES