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KNOWLEDGE, ATTITUDE, AND PRACTICES OF ADOLESCENT GIRLS TOWARDS IRON DEFICIENCY ANEMIA

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Abstract:

One in every five people in the world is an adolescent, defined by WHO as a person between 10-19 years of age. Adolescents, especially adolescent girls, at this stage need protein, iron and other micronutrients to support the adolescent growth spurt and meet the body's increased demand for iron during menstruation. The main nutritional problems identified in adolescents are micronutrient deficiencies in general and Iron Deficiency Anemia (IDA) in particular. Hence, it was decided to assess Knowledge, Attitude and Practices of Adolescent girls (AGs) towards Iron deficiency Anaemia (IDA).

Methodology:

A cross-sectional study was carried out among 467 AGs attending AFHS) clinics in Ahmedabad city during May 2011 to august 2012.

Result:

A total of 467 AGs were studied. Age of Adolescent girls ranged from 10-19 years. Mean age of girls was 14.5+2.4 years. seven percent girls knew about anaemia, 45.4% knew about the symptoms of anemia,45.9% girls knew about the preventive measures of anemia. 14.7% girls were taking tea/coffee after meal. While 80.5% girls believed that it should not be consumed after meal, only 1% girls actually knew the reason behind why it should not be consumed after meal. Conclusion: The overall awareness related to IDA is very low and hence, special efforts should be done to raise awareness at school, Anganwadi or every opportune level where AGs gathered as lowering the gap between knowledge and practice can ultimately yield to high productivity in terms of increase physical activity, cognitive ability and better pregnancy outcomes.

Key Words: Adolescent, KAP & IDA

Introduction:

One in every five people in the world is an adolescent, defined by WHO as a person between 10-19 years of age.[1] Adolescence is a fascinating period of life that marks the transition from being a dependent child to become an independently functioning adult.[2]

Adolescence proves to be the most vulnerable phase in the path of human life cycle after infancy, characterized by rapid growth and development with a transition from childhood to adulthood.[3] Adolescents, especially adolescent girls, at this stage need protein, iron and other micronutrients to support the adolescent growth spurt and meet the body's increased demand for iron during menstruation. The main nutritional problems identified in adolescents are micronutrient deficiencies in general and Iron Deficiency Anemia (IDA) in particular. Over 50% adolescent girls consumed less than 50% RDA for energy while over 70% girls consumed less than 50% RDA of iron. Thus, adolescents are at high risk of iron deficiency and anaemia.[4]

The health needs of adolescents have seldom been addressed in developing countries like India, where, in fact, it is very much needed. However, adolescent health has now been included as a part of Reproductive and Child Health (RCH) and Integrated Child Development Scheme (ICDS) programmes, where some of the aspects of the reproductive health are taken care off.[5] Under the RCH-II framework, a National

strategy to implement the adolescent health component in the existing public health system has been designed i.e. Adolescent Health Initiative (AHI). This strategy highlights the need to create awareness and supportive environment for improving health seeking behaviour of adolescents.[6]

Hence, it was decided to assess Knowledge, Attitude and Practices of Adolescent girls (AGs) attending Adolescent Friendly Health Services (AFHS) clinics in Ahmedabad city towards Iron deficiency Anaemia (IDA).

Methodology:

A cross-sectional study was carried out among 467 AGs attending AFHS) clinics in Ahmedabad city during May 2011 to august 2012.

AFHS Clinics:

Ahmedabad city is divided into 6 zones having 57 wards with Urban Health Centres. As an initiative of Gujarat state health and family welfare department, ten AFHS clinics were established in 10 UHCs to delivered AFHS services to adolescents. AFHS services includes growth monitoring, Haemoglobin (Hb) testing to detect anemia, deworming, health education, information and counselling on sexuality, safe sex and reproductive health; contraceptive provision, HIV counselling (and referral for testing and care); pregnancy testing and antenatal and postnatal care; counselling on sexual violence and abuse (and referral for needed services); and post abortion care counselling and contraception.

Questionnaire:

A semi-structured pre-tested questionnaire was used to obtained information regarding knowledge, attitude and practices of AGs towards IDA. Inclusion criteria included all the AGs aged 10-19 years registered and present at that time in AFHS clinics, all apparently normal AGs and all AGs who gave written consent while all the AGs who suffered from any moribund diseases or apparent mental illness and who did not gave written consent were excluded.

Ethical clearance:

Present study was conducted in all the ten AFHS clinics and all the adolescent AGs who were present on the day of visit were interview. Strict confidentiality and privacy was maintained. Ethical clearance was obtained from Intramural Ethical Committee, Smt. NHL MMC, Ahmedabad prior to the study. Written consent was obtained prior to the interview from the guardian of the AGs.

Result:

A total of 467 AGs were studied. Age of Adolescent girls ranged from 10-19 years. Mean age of girls was 14.5**+**2.4 years. Maximum (42%) girls belonged to the age group 13-15 years (mid adolescence). 23.4% girls were in early adolescence (10-12 years) and 34.6% girls were in late adolescence (16-19 years). Maximum numbers of girls were studying in primary followed by secondary school. As the educational level increases number of girls studying were decreasing. Only 13 girls were currently studying after 12th standard. Around 1.3% adolescents were illiterate. In this study School dropout rate was 19.1%. There were 89.9% Hindus and the rest were Muslims. Out of 467, 358(76.7%) girls belonged to nuclear families.

Knowledge Regarding Anemia Prevention & Treatment:

About Anemia:

The girls were asked to name the condition in which the blood becomes pale, only 34(7.3%) could correctly answer i.e. Anemia or “Pandurog”. About 383(82%) didn’t know about it.

Causes of Anemia:

When asked about which micronutrient deficiency could lead to anemia, only 47(10%) could correctly reply.

Symptoms of Anemia:

When enquired about the symptoms of anemia there were large number of non-respondents and only 212(45.4%) could correctly reply.

Prevention of Anemia:

When asked about what can we do to prevent anemia, 214(45.9%) girls suggested taking iron tablets/iron rich foods.

Diet and Anemia:

When asked about the reason that why tea/coffee should not be consume after meal, only 5(1.1%) could give correct reason .i.e. tea/coffee inhibits iron absorption.

Iron Folic Acid (IFA) Tablet:

When asked from where they received IFA tablets, 251(53.7%) replied that they received tablets from anganwadi while 139(29.8%) didn't respond to this question. When asked about the content of the tablet given to them, only 66(20%) referred to iron and 45(13.7%) gave incorrect answer like iodine, calcium, C etc. When asked about the benefits of IFA tablets, 29(6.2%) correctly answer the question.

Attitude Regarding Iron Deficiency Anemia:

Diet and Anemia:

When asked about post-meal consumption of tea/coffee, 376(80.5%) believed that they should not take tea/coffee after meal.

Practices Related to Iron Deficiency Anemia:

Habits Related to Tea/Coffee:

Although 96% of girls were consuming tea, some 14.7% were taking it after a meal. When asked whether lemon was consumed along with meal, 327(70%) replied they do take lemon with meal.

IFA Tablets:

Around 61(13%) girls were taking IFA tablets, out of which 48(10.2%) were regularly taking it.

Risk factors for IDA:

One fourth of girls walked barefoot outside home and around 453(97%) girls were using RCA Latrines for defecation.

Symptoms related to IDA:

When asked about any complaint related to IDA, 177(37.9%) girls responded that they were experiencing weakness, 234(50.1%) girls felt easily tired out and 116(24.8%) girls felt breathless while doing routine work.

Table 1: Knowledge, Attitude and Practices related to Iron Deficiency Anemia(n=467)

	Response	Frequency	Percent
In which condition there is decrease in Hemoglobin count?	Correct	34	7.3
	Incorrect	50	10.7
	Don't know	383	82.0
Can Inadequate diet lead to anemia?	Correct	452	96.8
	Incorrect	15	3.2
Which micronutrient deficiency leads to anemia?	Correct	47	10.1
	Incorrect	86	18.4
	Don't know	334	71.5
What are the symptoms of anemia?	Correct	212	45.4
	Incorrect	21	4.5
	Don't know	234	50.1

How can we prevent anemia?	Correct	214	45.9
	Incorrect	97	20.8
	Don't know	156	33.4
Should we consume tea/coffee after meal?	Correct	82	17.6
	Incorrect	376	80.5
	Don't know	9	1.9
Why can't tea be consumed after meal?	Correct	5	1.1
	Incorrect	28	6.0
	Don't know	434	92.9
Do you consume tea in daily routine?	Yes	449	96.1
	No	18	3.9
Do you take tea after meal?	Yes	66	14.7
	No	383	85.3
	Not applicable	18	3.9
Do you take lemon along with meal?	Yes	327	70.0
	No	139	29.8
	Don't know	1	0.2
Do you get IFA tab from Anganwadi?	Yes	251	53.7
	No	77	16.5
	No response	139	29.8
What does it contain	Correct	66	20.1
	Incorrect	45	13.7
	Don't know	216	65.9
	No response	139	29.8

	Response	**Frequency**	**Percent**
Do you take IFA?	Yes	61	13.1
	No	406	86.9
Do you know its benefits?	Correct	29	6.2
	Incorrect	3	0.6
	Don't know	433	92.7
Do you take it regularly (n=61, who are taking IFA)	Yes	48	78.7
	No	13	21.3
Did you experience any side-effects after taking it? (who are taking IFA)	Yes	19	31.2
	No	42	68.9
Did you feel any change after taking it? (who are taking IFA)	Yes	47	77.0
	No	14	23.0
Do you walk barefoot outside home?	Yes	119	25.5
	No	348	74.5
Do you use toilet (RCA latrine)	Yes	453	97.0
	No	14	3.0
Do you experience weakness in general?	Yes	177	37.9
	No	290	62.1
Do you feel easily tired out	Yes	234	50.1
	No	233	49.9
Do you feel breathless while doing work routinely?	Yes	116	24.8
	No	351	75.2
Were you absent in school during last three months due to any illness lasting for a week or more	Yes	32	6.9
	No	435	93.1
If yes, what is the condition? (n=32)	Fever	4	12.5
	Abdominal pain	1	3.1
	Jaundice	3	9.4
	Weakness	5	15.6

	Injury	2	6.3
	No response	17	53.1

Discussion:

The main purpose of "KAP" study is to measures the Knowledge, Attitude and Practices of a community/group. It basically serves as an educational tool for the community/group. Before imparting knowledge on any particular topic, it is very essential to assess the existing knowledge and awareness in any given community/group.[7]

KAP Study tells us what people know about certain things, how they feel and also how they behave. A KAP study evaluates three aspects i.e. Knowledge, Attitude and Practice. The Knowledge possessed by a community/group refers to their understanding of any given topic on anaemia and its preventive aspects in this case. Attitude refers to their feelings towards this subject, as well as any preconceived ideas that they may have towards it. Practice refers to the ways in which they demonstrate their knowledge and attitude through their actions. Understanding the levels of Knowledge, Attitude and Practice will enable a more efficient process of awareness creation as it will allow the program to be tailored more appropriately to the needs of the community/group.[7]

In the present study it was observed that only 7.3% girls knew about anaemia and 10% girls knew the causes of anaemia. In another study done by Kotecha et al[5] in Vadodara, Gujarat in AGs, 12% girls knew the causes of anaemia. This shows that the overall awareness regarding anaemia and its causes are poor. Special attention should be given at school, Anganwadi or whatever opportune point where AGs gathered to raise awareness regarding it.

According to Centre of disease control and prevention, Habitual consumption of tea/coffee immediately after meals contributes to higher prevalence of anemia of 50% compared to 34% in those who did not consumed it after meals.[8]

In the present study, 14.7% girls were taking tea/coffee after meal. While 80.5% girls believed that it should not be consumed after meal, only 1% girls actually knew the reason behind why it should not be consumed after meal. Kotecha et al[5] in his study observed that 45.5% girls believed that it should not be taken after meal whereas 57.9% actually consumed it after meal and 16.6% girls knew the reason behind not consuming it after meal. This point highlights the existing gap between the actual knowledge, belief and practice. While many believed that tea/coffee should not be consumed, hardly a fistful knew the correct logic behind it.

It was observed in the present study that 45.9% girls knew about the preventive measures for anaemia. In the study of Kotecha et al[5], 37.3% girls could correctly answer how to prevent anaemia. Hence, the overall awareness regarding prevention of anaemia is very low. Adolescence is an opportune time for interventions to address anaemia. Not only is there a need (growth, preparation for pregnancy), but large numbers of girls can be reached easily if school attendance or participation in other group activities is high. Also, adolescents are open to new information and new practices since they are often striving for physical or academic excellence.[4]

Hence, data from the present study can be used to form implementation strategies for prevention of IDA and the need of the hour to reach out the vulnerable AGs from the point of view of increase knowledge leading to productivity gains from improved physical capacity; productivity gains from increased cognitive ability; and (for adolescent girls) improved pregnancy outcomes and intergenerational benefits.[4]

References:

1. Strategies for Adolescent health and Development in South-East Asia Region: Report of Intercountry Consultation, WHO, New Delhi, May 1998; p11, 20, 38-48.
2. Adolescent Care – 2000 and beyond, 1st edition, 2001; p1-3.
3. A Study on Impact of Iron Folic Acid along with Vitamin-C on the Haemoglobin status of Adolescent Girls in an ICDS Block. National Institute of Public Cooperation and Child Development Regional Centre, Lucknow, India; p11. nipccd.nic.in/reports/rcl_ifa.doc (assessed on 27 Dec 2012).
4. Prevention of Iron Deficiency Anaemia in Adolescents, Role of Weekly Iron and Folic Acid Supplementation, WHO, Regional office South-East Asia, 2011; p 2-8.
5. Kotecha P.V., Baxi R.K., Mazmudar V.S., Misra S., Patel S.H. Health Awareness and Needs Assessment Study of School Going Adolescents of Vadodara city: Executive Summary. Government Medical College, Vadodara, India, October 2003; p1.
6. J Kishore. National Health Programs of India: National Policies and Legislations Related to Health, 9th Edition, Century Publications, New Delhi; p 176-178.
7. K. Kaliyaperumal. Guideline for Conducting Knowledge, Attitude and Practice (KAP) study. Community Opthalmology, Jan - Mar 2004, 4(1);p7-9.
8. Guidelines for school health programs to promote lifelong healthy eating. Centre for Disease Control and Prevention. MMWR Recommendation Report. 1996; 45(RR-9): 1-41