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RESEARCH ARTICLE

**STUDY OF MORBIDITY PATTERN AMONG ADOLESCENT GIRLS IN
RURAL AREAS OF ALIGARH**

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ABSTRACT

Introduction: WHO defines Adolescence as the segment of life between the ages of 10-19 years. The importance of adolescent girls is because they are future mothers tomorrow. So they should be given care in terms of health, nutrition and education. The health problems of adolescents are very different from those of younger children and adults. Majority of adolescents still do not have access to information on reproductive health and rights, nor do they have access to preventive and curative services. The aim and objective of this study was to study the morbidity pattern among the adolescent girls in rural areas of Aligarh.

Material and Methods: The present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College, AMU, Aligarh. A semi structured questionnaire was used to collect data from October-November, 2013. A total of 100 adolescent girls, 10-19 years of age, of Jawan village, formed the target group. We had taken those adolescent girls for study who had attained menarche. An informed consent was taken from them. A detailed history was taken regarding present and past illness. General and systemic examination was done. Anthropometric measurements were taken. **Results** Most of the girls had some menstrual problem in the form of dysmenorrhoea or irregular cycles or pattern of bleeding etc. This was followed by pediculosis and white discharge per vaginum or burning during micturition. Dental caries was found in 30% of them and 20% had URTI. 60% had mild anaemia, 25% had moderate anaemia and 5% had severe anaemia. 53% of girls were of normal BMI, 44% of them were underweight, 2% were overweight and 1% obese. **Conclusion:** The health and nutritional status of adolescent girls is very poor in rural areas. It is because of gender discrimination in the families. Regular health check-ups and periodical examination in the schools and families should be done by health workers. Health education programme on hygiene and common diseases have to be carried out in the schools and health centres. De-worming should be done on a mass level at regular intervals. Adolescent clinics should be opened in the health centres.

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INTRODUCTION

WHO defines Adolescence as the segment of life between the ages of 10-19 years. It is a transition phase through which a child becomes an adult. It is characterized by rapid growth and development; physiologically, psychologically and socially (1). The importance of adolescent girls is because they are future mothers tomorrow. So they should be given care in terms of health, nutrition and education. Adolescent girls form an important vulnerable sector of population that constitute about one-tenth of Indian population (2). Most of the surveys show that health status of adolescent girls are at sub-optimal level (3). Twenty-five percent of adult height and 50% of adult weight are attained during adolescence. It is also an intense anabolic period when requirements for all nutrients increase (4). School health check-ups should be done regularly to prevent complications in adolescent girls (5). The health problems of adolescents are very different from those of younger children and adults (6). Majority of adolescents still do not have access to information on reproductive health and

rights, nor do they have access to preventive and curative services (7).

The aim and objective of this study was to study the morbidity pattern among the adolescent girls in rural areas of Aligarh.

MATERIAL AND METHODS

The present study was conducted in Rural Health Training Centre, Jawan, of Jawahar Lal Nehru Medical College, AMU, Aligarh. A semi structured questionnaire was used to collect data from October-November, 2013. A total of 100 adolescent girls, 10-19 years of age, of Jawan village, formed the target group. We had taken those adolescent girls for study who had attained menarche. An informed consent was taken from them. For proper response the heads of the families were explained in detail the purpose of study. A detailed history was taken regarding present and past illness. General and systemic examination was done. Anthropometric measurements were taken. Haemoglobin estimation by Sahlis

method was done .Cut off level of Hb (g/dl) for anaemia in adolescent girls was taken as follows (8):

Non- pregnant----- Hb<12g/dl

Snellen chart was used for vision test.The data was collected and analysed in Microsoft Office Excel, by using SPSS.

RESULTS

Table 1 Morbidity Observed In the Study Population (n=100)

Morbidity Condition*	No.=100
1.Menstrual problems	75
2.White discharge per vaginum/burning during micturition	38
3.Pediculosis	63
4.Dental caries	30
5.Skin disorders	17
6.URTI	20
7.Passing worms in stool	14
8. Defective vision	19
9.ENT problems(tonsils,defective hearing,ear discharge or earache)	12

Multiple responses*

Table -2 Anaemia in Adolescent Girls

Grades(g/dl)	n=100
1.Mild anaemia(10-cut off)	60
2.Moderate anaemia(7-<10)	25
3.Severe anaemia(<7)	05
NO ANAEMIA	10

Table-3 Distribution of the girls according to BODY MASS INDEX (Weight/Height²;kg/metre²)

BMI	NO.=100
<18(underweight)	44
18-24.9(normal)	53
25-29.9(over-weight)	2
30-39.9(obese)	1

As shown in **table-1**,75% of the girls had some menstrual problem in the form of dysmenorrhoea or irregular cycles or pattern of bleeding etc.This was followed by pediculosis in 63% of girls,followed by white discharge per vaginum or burning during micturition in 38% of girls.Dental caries was found in 30% of them and 20% had URTI.Defective vision was found in 19% of them.History of worm infestation was given by 14% of girls.Skin problems were found in 17% of them.12% of girls had ENT problems.

As shown in **table-2**, 10% of girls had no anaemia, 60% had mild anaemia, 25% had moderate anaemia and 5% had severe anaemia.

As shown in **table-3**, 53% of girls were of normal BMI, 44% of them were underweight,2% were overweight and 1% obese.

DISCUSSION

As shown in our study, the most common morbidity in adolescent girls was menstrual problem,followed by pediculosis and white discharge/urinary infection. Dental caries was found in 30% of girls.This may be due to poor oral hygiene.The pediculosis,white discharge per vagium was may be because of poor personal and genital hygiene.Pediculosis was maybe because of overcrowding.

In a study conducted by Srinivasan (9), the common morbid conditions found were skin disorders 25.7%, dental caries 21.5%, worm infestation history 21.6%.

In a study conducted by Singh *et al* (10), inadequate oral hygiene was found in 55.4% of adolescent girls, pediculosis in 39.2%, URTI in 25.8% of girls.

Another study (11) in a tribal area showed morbidity in the form of fever in 24.4%, URTI in 35.4% of adolescents.

Another study (12) in Tamil Nadu reported general complaints in the form of general fatigue, palpitations, backache and abdominal pain.

In a study conducted in Mumbai (13), major problem was hygiene related.

In our study, vision impairment was in 19% of adolescent girls, while in other studies (9,10) it was 4.7% and 4.5% respectively.

A study conducted by Deo *et al* (14) and Geetha *et al*(15) showed dysmenorrhoea in 31.64% and in 21% respectively.We had taken any menstrual problem ,not only dysmenorrhoea,to be a morbidity. Maybe that was the reason for high figure of 75% in our study.

Anita *et al* (16) reported anaemia in 55.5% of adolescent girls, dysmenorrhoea in 43%, dental caries in 37.2%, pediculosis in 31%, menorrhagia in 21%, vaginal discharge in 16%, refractive errors in 13.4% and acne in 11%.

Another study (17) reported pediculosis in 83.2%, dysmenorrhoea in 43.6%, dental caries in 28%, defective vision in 12%,worm infestation in 13.2% and skin diseases in 26.4% of girls.

In a study in Lucknow (18), inadequate oral hygiene was found in 55.4% of girls, pediculosis in 39.2%,URTI in 25.8%,scabies in 16.2% and ear discharge in 7% of subjects under study.

In our study,60% of the girls were having mild anaemia.Other study reported (19)mild anaemia in 46.5% of girls and 15.7% were having moderate anaemia.Another study reported anaemia to be in 37.6% of girls(22).Usually girls are anaemic in India because of negligence in their families. They are given less importance than boys.Anaemia may also be due to disturbed menstrual cycle or worm infestations.

According to BMI,our results showed that nearly 44% of the girls were underweight,2% were overweight and 1% was obese.53% of girls were of normal.This was similar to other studies(20,21).In a study by Raheena Begum in Kerala(23),53% in 14years age group and 33% in 15years age group were having BMI<18.5%kg/m².The study of urban slum girls in Dhaka(24) reported prevalence of thinness 17%.

CONCLUSION

The health and nutritional status of adolescent girls is very poor in rural areas.It is because of gender discrimination in the families.Regular health check –ups and periodical examination in the schools and families should be done by health workers.Health education programme on hygiene and common diseases have to be carried out in the schools and health centres.De-worming should be done on a mass level at regular intervals.Adolescent clinics should be opened in the health centres.

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