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INVESTIGATION ON HEALTH STATUS AMONG ADOLESCENT GIRLS IN RURAL KHAMMAM

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Abstract:

Introduction: The health and well-being of adolescent girls are of paramount importance for their overall development and the progress of any society. The present study was aimed to assess the Socio economic and health status of adolescent girls in the rural area of Khammam.

Materials and methods: A Community based cross-sectional study conducted during October 2018 to September 2020. The study was carried out among 600 adolescent girls residing in the rural area of Khammam.

Results: The age group of adolescent girls in the present study was between 10-19 years. The mean age of study subjects was 14.5±2.87 years. In the present study, 44.34 % and 9.33 % of the girls belonged to lower middle class and upper middle-class of socio-economic status. Various surgeries were done in the subjects; there were multiple responses by the participants for the given morbidities. Numbers of morbidities maximum four were observed per person in the study.

Conclusion: The study identified common morbidities among adolescent girls in rural Khammam, These insights contribute to understanding the health conditions and needs of adolescent girls in rural Khammam

Keywords: Health practices; Kuppuswamy classification, socio-economic status; Morbidity

Introduction:

The 2011 Census of India reported that 20.9% of the population consisted of adolescents, with 47.3% of them being female (1). Adolescence is a crucial period for growth, requiring proper nutrition and healthcare. An adolescent girl typically needs around 2200 kcal/day and 44-46 g/day of protein (2). Anemia among adolescents can hinder growth, cognitive development, and work productivity, while chronic malnutrition may lead to long-term health issues and low birth weight babies. Investing in the nutritional status of adolescent girls contributes to healthy families and communities, positively impacting reproductive outcomes and physical activity. Preventing malnutrition throughout the life cycle improves socioeconomic status, reduces healthcare costs, and increases adult productivity (3).

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In India, the nutritional status of adolescents poses a significant challenge, with high rates of wasting and stunting. Anemia affects a large proportion of adolescents, particularly girls. Efforts are being made through RMNCHA to address adolescent nutrition, including iron-folic acid supplementation and reproductive health services (4). Breaking the intergenerational cycle of malnutrition requires a focus on rural and tribal areas with dietary deficiencies and limited access to healthcare. In India, adolescence is influenced by factors such as delayed puberty and early marriages. Adolescents make up more than one-fifth of the global population (5).

In India, patriarchal norms prioritize boys over girls, restricting girls' freedom and silencing their needs. Lack of sexual and reproductive knowledge puts them at risk of misconceptions, abuse, and unwanted pregnancies. While young people in India are healthier and better educated, they still face significant challenges in making informed sexual and reproductive choices. Researchers and policymakers are beginning to address these issues, but more understanding and evidence-based interventions are needed to protect young people's autonomy and ensure their sexual and reproductive health. The present study was aimed to assess the Socio economic and health status of adolescent girls in the rural area of Khammam.

MATERIALS AND METHODS

Study design: A Community based cross-sectional study conducted during October 2018 to September 2020. The study was carried out among 600 adolescent girls residing in the rural area of Khammam.

Inclusion criteria: Adolescent girls those who are present at the day of visit and those who are willing to participate in the study are included in the study.

Exclusion criteria: adolescent girls those who are absent at the day of study and those who are not willing to participate in the study are excluded.

Data collection: Data about age group was collected using pre tested proforma. Socio economic status was classified according to modified Kuppuswamy classification, taking income, education and occupation of the head of the family.

Health status: Health status of the adolescent girls was obtained by taking clinical history. Data regarding morbidity status of every girl was collected by oral questionnaire method using a pre tested profroma. Then every girl was examined physically from head to toe and the deviation from the normal was recorded.

Statistical analysis: The data was analyzed by using SPSS Version 20. Mean and standard deviation variables were calculated for continuous variables such as age, weight, height, age of menarche and days of menstrual bleeding.

RESULTS:

We have studied 600 adolescent girls aged 10–19 years living in rural areas of Khammam.

Table 1: Distribution of adolescent girls according to Age

Age (years)	Number	Percentage
10 years	69	11.5
11 years	66	11

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12 years	68	11.33
13 years	65	10.83
14 years	93	15.5
15 years	91	15.16
16 years	57	9.5
17 years	53	8.43
18 years	21	3.92
19 years	17	2.83
Total	600	100

The age group of adolescent girls in the present study was between 10-19 years. The number of girls in each age group, (15.5%) of girls belonged to age group of 14 years followed by 15 years (15.16%) and least number is seen in 19 years (2.83%). The mean age of study subjects was 14.5 years, with a standard deviation of ±2.87 years.

Table 2: Distribution according to Kuppuswamy Socio-Economic Status

Socio-economic class	Number	Percentage
Upper class -1	Nil	-
Upper Middle Class -2	56	9.33
Lower Middle Class -3	268	44.34
Upper Lower Class -4	159	26.76
Lower Lower Class -5	117	19.57
Total	600	100

In the present study, 44.34 % of the girls belonged to lower middle class. Only 9.33 % of them belonged to upper middle-class of socio-economic status.

Table 3: Distribution according to History of surgery

SURGERY	FREQUENCY	PERCENTAGE
Appendicitis	11	1.83
Tonsillectomy	16	2.66

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Fracture of hand and leg	23	3.83
Heart surgery	2	0.34
No history of any surgeries	548	91.34
Total	600	100

Various surgeries were done in 52, (8.66%), of the study subjects, among them 23 (3.83%) were operated for fractures followed by tonsillectomy in 16 (2.66%), and appendectomy in 11 (1.83%).

Table 4: Distribution according to Morbidity pattern

MORBIDITY	FREQUENCY	PERCENTAGE
Constipation	44	7.33
Diarrhoea	12	2
Oral ulcers	27	4.5
Gum swelling and bleeding	36	6
UTI	42	7
H/O of passage of worms	48	8
Defective hearing & discharge	31	5.16
Refractive errors	96	16
Head ache	162	27
Ear ache	53	8.83
Stomach ache	234	39
Dental problems	126	21
Asthma	11	1.83
Skin disorders	28	4.66

There were multiple responses by the participants for the given morbidities. Numbers of morbidities maximum four were observed per person in the study.

DISCUSSION

The present study was done on 600 adolescent girls who are living in the Khammam rural. The age group of study subjects range from 10 to 19 years, with means age of 14.5 years and

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standard deviation of ±2.87 years. About 44.68% are in early adolescent age followed by mid adolescents of 30.66% and late adolescents of 24.68%. Majority were Hindus 74.66% followed by small proportions of Muslims 14.83% and Christians 10.5%. The mean age of study group was 14.5 years with a standard deviation of ±2.87 years. The age group of the study subjects was 10-19 years, comparable to the study, a study by Ashok and group (6), on the adolescent girls with age group of 10-18 years, with the proportion of early 28.2%, mid 29.8%, and late 42% respectively, and the mean age was 15.2 years.

In the present study, 44.34 % of the girls belonged to lower middle class. Only 9.33 % of them belonged to upper middle-class socio-economic status. Kuppuswamy scale was used to determine the socioeconomic status where occupation, literacy rate and family income were used as the indicators. Socio-demographic data collected during the study showed literacy levels of parents were higher in older adolescent group.

In the present study the leading causes of morbidities were Head ache in 162, (27%), stomach pain 234, (39%), refractive errors in 96, (16%), history of passage of worms in 48, (8%) and constipation in 44, (7.33%). Oral ulcers, gum bleeding and gum swelling together 63, (10.5%). Dental problems in 126, (21%), ENT problems like ear ache, defective hearing and ear discharge were seen in 84, (13.99%), skin disorders 28, (4.66%), and B-complex deficiency 18, (3%).

Various surgeries were done in 52 girls of which 23 girls were operated for fractures of hand and legs, 16 girls had tonsillectomy, 11 had girl's appendicectomy and 2 girls had heart surgery. The morbidities were compared to that of study done by Sivaiah and group (7), in the social welfare hostels of Guntur on 222 boys and girls. Among them 128 were girls, with the common morbid conditions of dental problems (29.2%), skin disorders (22.9%), ENT problems (17%), history of passing worms in stool (18%) and B-complex deficiency (4.5%).

The present study showed dental problem of dental caries in 21% and compared with various studies the prevalence of dental caries varies from 31.65% in Gugwad and co-workers (9) study, 29.2% in Sivaiah (7) eand 22.2% in study by Panda and group (9). History of passage of worms in the present study is seen in 8%, and compared with other studies (7), study it was 18%. Infective and parasitic diseases were seen in 10.9% of the adolescence urban area.

Recent study showed only 2.6%. It may probably due to increase in the awareness, use of personal sanitary latrines and use of Albendazole (10). The present study showed refractive errors in 16% of the girls, compared with other Studies, where it was 4.4% and 12.36% respectively (9, 11).

In conclusion, the leading causes of morbidities among the study participants were headaches, stomach pain, refractive errors, history of passing worms, and constipation. Surgeries were performed on 52 girls, with the most common procedures being fractures of the hand and legs, tonsillectomy, appendicectomy, and heart surgery. The prevalence of dental caries was found to be 21%, and the occurrence of refractive errors was 16% among the girls.

Comparisons with other studies indicated variations in the prevalence of dental caries, history of passing worms, infective and parasitic diseases, and refractive errors. These differences

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could be attributed to factors such as awareness levels, personal hygiene practices, and access to healthcare interventions.

Overall, the study provides valuable insights into the health conditions and morbidities prevalent among adolescent girls in the Khammam rural area. Further research and interventions are necessary to address these health concerns and improve the well-being of adolescent girls in the region.

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