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Original Research Article

Clinical scenario, contraceptive awareness and epidemiological trends in adolescent girls: an outpatient review at a tertiary care institute

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ABSTRACT

Background: Adolescence is a vulnerable time in a child's life, both in terms of physical and psychological changes. This study aims to identify some of the common gynecological problems faced by adolescent girls and throws light on some common psychological stressors prevalent among adolescent girls. An attempt has been made to estimate the presence of contraception awareness among adolescent girls as well.
Methods: This is an outpatient-based, observational, prospective study carried out for a period of six months between December 2023 to May 2024 wherein a group of 50 adolescent girls between the ages of 10-19 years, who have visited the gynecology outpatient department at St. George Hospital, Mumbai with specific complaints have been enrolled.
Results: The most common age group identified in the study was between 18-19 years of age. The most prominent gynecological complaint was menstrual irregularities found in 34% of the girls followed by abdominal pain in 30%. Puberty menorrhagia was found in 12% of the subjects. Anxiety was the most common psychological stressor seen in 64% of girls with temperament issues coming a close second in 40% of subjects. Contraception awareness was present in 64% of the girls and the barrier method was the most widely known.
Conclusions: A lot of adolescents while developing the common gynecological problems expected during adolescence, also develop a significant number of mental stressors. With more focussed research identifying the problems specifically occurring during adolescence, we can hope to provide a holistic approach while dealing with adolescent health.

Keywords: Adolescence, Contraception awareness, Menstrual irregularities, Puberty menorrhagia

INTRODUCTION

Adolescence is a vulnerable time in a child's life. The body goes through confusing changes while the mind goes through even more challenging phases. Often, the problems of adolescence are neglected as they are poorly understood. This study aims at identifying some of the common gynecological problems faced by adolescent girls and throws light on some common psychological stressors prevalent among adolescent girls. An attempt has been made to estimate the presence of contraception awareness among adolescent girls as well.

WHO refers to the ages between 10-19 years as adolescent. In India, this age group comprises of approximately 21% of the population.[1] Adolescent girls commonly face a range of gynecological issues, with menstrual disorders being the most prevalent. Dysmenorrhea, menorrhagia, and amenorrhea significantly impact their quality of life and academic performance.[2,3] Polycystic Ovary Syndrome (PCOS) is another major concern, affecting up to 10% of adolescent girls. It leads to menstrual irregularities,

hirsutism, and obesity, necessitating comprehensive management.[4,5] Menstrual hygiene management is crucial yet often inadequate, particularly in developing countries. Poor menstrual hygiene can lead to infections and reproductive tract issues, highlighting the need for better education and resources.[6,7] Hormonal imbalances are also common during adolescence, presenting as thyroid disorders, adrenal abnormalities, and growth issues. These conditions require endocrinological evaluation and long-term management to prevent complications.[8,9] gynecological infections, including sexually transmitted infections (STIs), are a significant concern. The lack of comprehensive sex education contributes to high rates of STIs and other reproductive health issues.[10] Early diagnosis and treatment are essential to prevent long-term reproductive health problems.

This study aims to provide a detailed review of these gynecological health issues as encountered in an outpatient setting, highlighting the epidemiological trends and clinical presentations specific to adolescent girls in Mumbai. The findings will contribute to the existing body of knowledge and inform healthcare strategies to address these critical health concerns effectively.

This study aimed to understand the changing pattern of common problems that adolescent girls face in current times and consequently, come up with a holistic approach to their treatment. Also, to identify the common gynecological problems faced by adolescent girls. Moreover, to understand the status of sexual health and mental well-being of adolescent girls and to estimate the contraception awareness among adolescent girls.

METHODS

This is an outpatient based, observational, prospective study carried out at St. George's Hospital, Mumbai for a period of six months between December, 2023 to May, 2024. A group of 50 adolescent girls between the ages of 10-19 years, who have visited the gynaecology outpatient department at St. George Hospital with specific complaints has been enrolled in this study and their data has been analysed.

Inclusion criteria

Adolescent girls aged between 10-19 years. Adolescent girls who came with various gynecological complaints were included.

Exclusion criteria

All adolescent girls with non-gynecological complaints and all girls less than 10 years or more than 19 years old were excluded.

All the data collected was entered in a spreadsheet (Microsoft Excel 2010), tabulated and then exported to SPSS Version 15 (SPSS Inc., Chicago, Illinois, USA). Descriptive statistics included percentage, frequency, and mean computations. For all calculations, confidence interval was set at 95%.

In addition to the specific gynaecological complaints, the girls were also enquired about their mental health in a private setting and an assessment of the common mental stressors was made. Due consent of each study participant was taken.

RESULTS

Age distribution of adolescent girls included in the study

Figure 1 shows that most girls (46%) were between 18-19 years of age while only 1 girl (2%) was between 10-11 years of age.

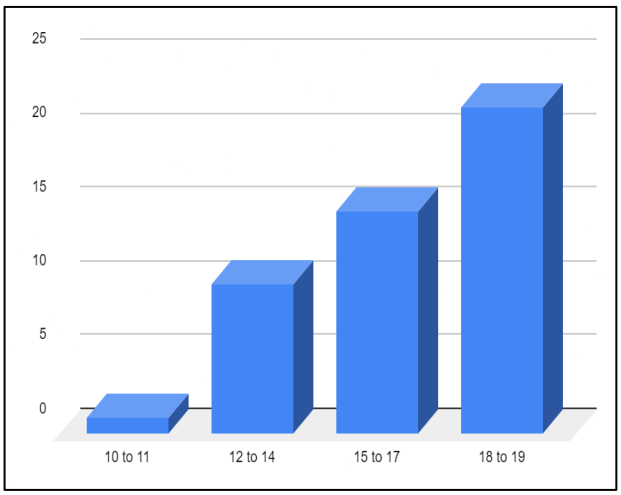

Figure 1: The age distribution of adolescent girls included in the study.

Socio-economic status distribution

Socio-economic status distribution according to modified Kuppuswamy scale in the study population (Figure 2).

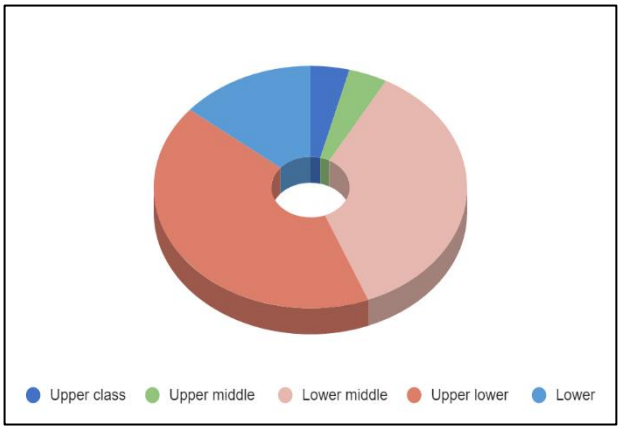

Figure 2: The socio-economic distribution of the patients.

Common clinical presentation amongst adolescent girls who visited our outpatient department

As shown in Table 1, 34% of adolescent girls presented with menstrual irregularities while the next most common complaint was abdominal pain, found in 30% (15 girls). Perineal rashes were the least common complaint, found in 1 subject. Notably, puberty menorrhagia was found in 12% of subjects.

Table 1: Following were the common clinical presentation amongst adolescent girls who visited our outpatient department.

Clinical presentation	No. of cases
Irregular menstrual cycle	17
Heavy menstrual bleeding (menorrhagia)	6
Symptoms and signs suggestive of Polycystic ovarian syndrome (PCOS)	7
Obesity	12
Itching per vaginum	2
Dysmenorrhea	5
Pain in abdomen	15
Burning micturition	3
White discharge per vaginum	6
Rashes around perineum	1

An evaluation of the sexual well-being and mental health status was also made and the following major problems were noted (Figure 3).

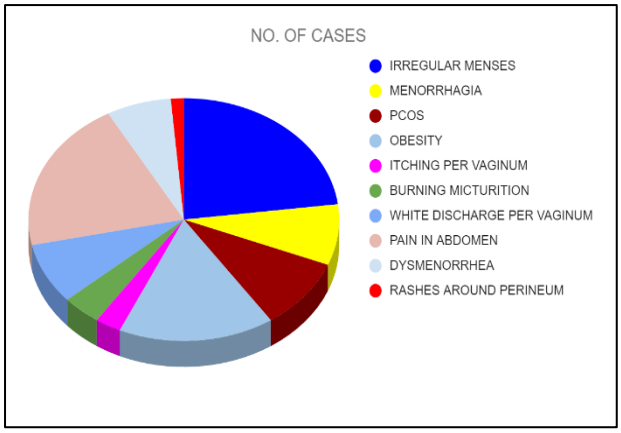

Figure 3: Common psychosexual problems in adolescent girls.

From Figure 3, around 32 girls (64%) complained of feeling anxious which makes it the most common psychological stressor. 40% of the subjects (20 girls) complained of having temperament issues, while depressive episodes and behavioral problems were identified in 34% of the subjects (17 girls in each group).

Contraceptive awareness in adolescent girls

From Table 2, only 64% (32 girls) were aware of the concept of contraception and out of them, most knew about barrier methods like condoms. The second most popular contraceptive choice was oral contraceptive pills while only 15 girls knew about hormonal implants. Out of the 64% adolescent girls who were aware of contraception, maximum people knew about the barrier method (32 girls) as is evident from the Table 2.

Table 2: Awareness of the various contraceptive methods among adolescent girls.

Contraceptive methods	Yes
Barrier method (condom)	32
Oral contraceptives pills	30
Intrauterine contraceptive devices	26
Implants	15
Natural methods	30

Total 18 girls (36%) presented with complaints suggestive of genital tract infection. Syndromic approach towards treatment of infection were taken as per the Government of India guidelines.

Table 3: Distribution of various kits used for the treatment.

Syndromic approach to STIs	No. of cases
Kit 1	2
Kit 2	6
Kit 6	10

Kit 6 comprising of doxycycline and metronidazole was the most prescribed kit which successfully treated 55.55% of the patients who came with complaints suggestive of genital tract infections. The same is shown in the Table 3.

DISCUSSION

Most of the girls (46%) participating in our study were between 18-19 years of age. The demographic of patients visiting our outpatient department was mostly upper-lower class which had 42% of the study population comprising of 21 girls. The most common complaint among adolescent girls was irregular menses which plagued 34% (17 girls) of the study population. This corresponds to various Indian studies which show similar results thus reinstating the fact that menstrual irregularities are the most common Gynaecological problems faced by Indian adolescent girls.[11-13] Around 36% of the patients who came to us presented with complaints suggestive of genital infections and was subsequently treated with syndromic approach.[14] Kit 6 was the most prescribed kit which treated 55.5% (10 girls) patients successfully.

Mental health has always been a topic of much taboo in the Indian subcontinent. It is essential to recognise the significant psychological challenges that adolescence brings into a girl's life. In our study, more than 50% girls suffered from anxiety. Other highly prevalent mental stressors were temper tantrums (40%), behavioural disorders (34%) and eating disorders (30%). Our results corroborate with the findings of other workers which reinforces the emergent need for focussed strategies to develop supportive measures like psychosexual counselling, one-to-one therapy and other holistic approaches towards dealing with the mental health of adolescents.[15-17]

Adolescence is also a crucial time for self-discovery wherein one builds connections with one's changing body. Globally, many girls will have had their first sexual encounter during their adolescence. In a developing nation like India, the discussion of sexual health is often marginalised in the presence of other physical diseases. Sexual encounters without proper protection predispose girls to developing sexually transmitted infections and unwanted pregnancies.[18] Around 64% of the girls in our study had knowledge of some form of contraception which is a similar figure to that observed in other Indian studies.[18,19] Barrier was the most commonly known contraceptive method in our study population. Given the rising number of unmarried teenage mothers in India, it is imperative to emphasize the absolute necessity of safe sexual practices among adolescent girls so that they can safeguard their health and carry with the more important things in their lives like education, career and achieving financial stability.[13]

Lastly, occasionally there have been isolated reports of workers having come across adolescent girls with ovarian lesions which may reach up to huge proportions.[20] Such patients may typically present with menstrual irregularities especially in cases wherein there is a concurrent sex hormone-secreting tumour.[20] When malignancy is suspected in such cases, tumor markers such as cancer antigen 125, α1-fetoprotein, human chorionic gonadotropins α and β, carcinoembryonic antigen, inhibin, lactate dehydrogenase, estradiol, and testosterone can assist in making a definitive diagnosis and in guiding the treatment.[21]

This study has few limitations. The time period of 6 months is a short timeline to adequately assess the prevalence of common problems in adolescence. Also, the sample size of 50 patients may not reflect the general adolescent population.

CONCLUSION

Adolescence is a very turbulent time in a young person's life. While the body undergoes a myriad of changes, the mind is often unable to keep track of these changes. Consequently, a lot of adolescents while developing the common Gynecological problems expected during adolescence, also develop a significant number of mental stressors. It is important to identify such stressors as they can have lasting impact on the developing psyche of the child. With more focussed research identifying the problems specifically occurring during adolescence, we can hope to provide a holistic approach while dealing with adolescent health so that they feel both seen and heard. This ensures that the future of our nation is in potent and healthy hands.

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