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Research Article

Study of various gynaecological problems and reproductive health awareness amongst adolescents at a rural setup in central India

Snehal Samarth*, Saunitra Inamdar, Chella Hariharan, Kanika R. Kalyani

Department of Obstetrics & Gynaecology, Datta Meghe Institute of Medical Sciences, Wardha, Nagpur, MH, India

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***Correspondence:**

Dr. Snehal Amol Samarth,

E-mail: snehalsamarth@gmail.com

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ABSTRACT

Background: Adolescent problems are increasing over the years and need special consideration. We, as health care providers, need to focus on young people as investing in their health today will reap rich rewards tomorrow.

Methods: All the adolescents presenting with various gynaecological problems were evaluated by detailed history taking and thorough clinical examination after taking an informed consent and explaining them our objective. After examination, adolescent girls were given education by means of slide show about menstruation, care during menses, nutritional diet and prevention of anaemia.

Results: Majority of adolescents had regular menstrual pattern. Oligomenorrhoea was the most prevalent abnormality of menstrual pattern in these adolescents. 15.58% adolescents had presented with breast problems like mastalgia, lump in breast, etc. Majority of adolescents studied were aware of the physical signs of puberty (77.25%) and HIV (74.14%). But very few adolescents were aware of the physiology involved in menstruation. Around half of all the adolescents were seen to follow proper menstrual hygiene.

Conclusions: Healthy adolescence, the need of the hour.

Keywords: Adolescents, Gynaecological problems, Awareness

INTRODUCTION

“Healthy adolescence, the need of the hour”.

The blossoming of adolescence in each generation is as fascinating a sight as the unfolding of spring each year; predictable and repetitive, yet nonetheless enchanting.

“No longer a child, not yet a woman”, is a line which captures the ethos of adolescence beautifully. This is a time of transition from childhood to becoming responsible adults. The changes are not only physical and sexual, but also emotional and mental. We, as health care providers, need to focus on these young people as investing in their health today will reap rich rewards tomorrow.¹

There are about 1.2 billion adolescents comprising a fifth of the world's population, and their numbers are increasing. Four out of five live in developing countries like ours. In India, we have a large pool of young people who need our special attention. World interest in adolescent health issues has grown dramatically, beginning with the International Year of Youth in 1985 and the World Health Assembly in 1989, where discussions were focussed on the health of youth.

Existing studies have concentrated on adolescents' knowledge of other areas of reproductive health, but little is known about their awareness and knowledge of pubertal changes, contraception, sexually transmitted diseases, HIV. Present study was made in an attempt to note the various adolescent problems in rural and urban areas so as to aid in improving general health of

womanhood and also know about their awareness and knowledge promote health education about the same. Our aim was to study various gynaecological problems in adolescents and to study the awareness and knowledge about pubertal changes, contraception, sexually transmitted diseases, HIV and promote awareness about the same.

METHODS

The present study “adolescent health problems in rural area” was conducted after approval from the Institutional ethics committee in the department of Obstetrics and Gynaecology, Acharya Vinoba Bhave Rural Hospital (AVBRH), Sawangi (Meghe), Wardha from August 2009 to March 2011. 321 adolescent females were included in the study from OPD, IPD and health camps.

Inclusion criteria

- Adolescent females between the age group of 12 to 19 years.

Exclusion criteria

- Unwillingness to participate in the study.
- Major medical systemic illness.

Procedure

All the adolescents presenting with various gynaecological problems to the OPD and indoor admissions were evaluated by detailed history taking and thorough clinical examination after taking an informed consent and explaining them our objective. Adolescents from health camp were interviewed. Post-interview, the adolescent girls were given education by means of slide show about menstruation, care during menses, nutritional diet and prevention of anaemia. Their problems, therein, any queries were solved post-interview maintaining confidentiality. Dysmenorrhoea was evaluated using the VAS pain scale. Oligomenorrhoea was evaluated by detailed history, signs and symptoms of hyperandrogenism (acne, hirsutism), obesity, ultrasound and biochemical evaluation (LH, Serum testosterone, Serum, insulin). Puberty menorrhagia was evaluated by history and examination, urine pregnancy test, CBC, peripheral smear examination, LFT, coagulation profile - Bleeding Time (BT), Clotting Time (CT), Prothrombin Time (PT), Activated Partial Thromboplastin Time (APTT) and platelet count. When, signs and symptoms of endocrinal disorder were present, T₃, T₄, TSH and serum prolactin was done. Patient with symptoms and signs of hyperandrogenism were evaluated for serum testosterone, serum DHEA, serum 17-OH progesterone. In patients with PCOS - Day2-FSH & LH, GTT, serum insulin, Sex Hormone Binding Globulin (SHBG) and ultrasound was done.

RESULTS

A total of 321 adolescents were included. We got an opportunity to study 227 (70.71%) adolescents who visited on our OPD days. We also studied 49 indoor adolescent cases. To study more number of adolescents and to know the problems of rural adolescents, we undertook health check-up camps and interviewed 45 (14.01%) adolescents by a pre-tested questionnaire. In the present study, the mean age of adolescent population was 17.37 ± 2.09 years. The mean age of attainment of menarche was 12.68 ± 1.03 years. Dysmenorrhoea was experienced by 193 (63.48%) adolescent girls. Of these 26 (13.47%) suffered from severe dysmenorrhoea. Dysmenorrhoea was probably primary in origin, due to excessive amount of prostaglandins released from endometrium during menstruation.

Oligomenorrhoea was present in 39 (12.82%). Polycystic ovarian disease in 17 (43.58%) adolescents was the commonest cause for oligomenorrhoea. No demonstrable cause for oligomenorrhoea was found in 16 (41.02%) attributable to immaturity of the hypothalamo-pituitary-ovarian axis.

A total of 30 (9.86%) adolescent patients with menorrhagia were seen during the study period. Of these, 20 (67%) were diagnosed as dysfunctional uterine bleeding, accounted by pubertal cause due to immature hormonal set up, diagnosed by exclusion of any organic causes. None were diagnosed as having coagulation disorder. In 8 (27%) adolescents, menorrhagia was secondary to polycystic ovarian disease and in 2 (6%) adolescents it was attributable to hypothyroidism. 10 (33.33%) cases of menorrhagia, required one or more blood transfusions.

Benign ovarian cysts were found in 6 (1.86%) adolescents. 37 (11.52%) adolescents had evidence of polycystic ovaries.

Symptoms related to breasts were present in 50 (15.58%) adolescents. Mastalgia, mostly premenstrual, was present in 29 (9.03%) cases. 7 (2.18%) adolescents had lipoma of breast. 8 (2.49%) presented with asymmetry of breasts. 1 (0.31%) had virginal hypertrophy and 2 (0.62%) had polythelia.

Of the 321 adolescents studied, 248 (77.25%) were aware of the physical signs of puberty. Awareness regarding sexually transmitted diseases was present in 156 (49.59%) adolescents.

Awareness about HIV and its modes of transmission was present in 238 (74.14%) adolescents. 220 (68.53%) adolescents were aware about contraceptives. Only 113 (35.2%) were aware of the physiology involved in menstruation. 200 adolescents (62.30%) were seen to follow proper menstrual hygiene.

Table 1: Menstrual patterns in adolescents.

Menstrual pattern	No. of adolescents (%) (n=304)
Regular	245 (80.59)
Metrorrhagia	15 (4.93)
Oligomenorrhoea	39 (12.82)
Polymenorrhoea	5 (1.64)

Table 2: Abnormalities of abnormal menstrual blood flow in the adolescents.

Amount of menstrual blood flow	No. of adolescents (%) (n=304)
Average	248 (81.57)
Menorrhagia	30 (9.86)
Hypomenorrhoea	26 (8.55)

Table 3: Causes of oligomenorrhoea in the adolescents.

Causes of oligomenorrhoea	No. of adolescents (%) (n=39)
Polycystic ovaries	17 (43.58)
Hypothyroidism	3 (7.69)
Chronic disease, stress	3 (7.69)
Physiological	16 (41.02)

Table 4: Causes of puberty menorrhagia.

Causes of puberty menorrhagia	No. of adolescents (%) (n=30)
DUB	20 (67)
Polycystic ovaries	8 (27)
Hypothyroidism	2 (6)
Bleeding disorders	0 (0)

Table 5: Severity of dysmenorrhoea in the adolescents.

Severity of dysmenorrhoea	No. of adolescents (%) (n=193)
Mild	111 (57.51)
Moderate	56 (29.01)
Severe	26 (13.47)

Table 6: Breast problems in adolescents.

Breast problems	No. of adolescents (%) (n=321)
Mastalgia	29 (9.03)
Fibroadenoma	3 (0.93)
Lipoma	7 (2.18)
Mastitis/abscess	0
Virginal hypertrophy	1 (0.31)
Breast asymmetry	8 (2.49)
Congenital anomalies (Polythelia)	2 (0.62)

Table 7: Reproductive health awareness among adolescents.

Health issues	No. of adolescents (%) (n=321)	
	Yes (%)	No (%)
Awareness of physical signs of puberty	248 (77.25)	73 (22.75)
STD awareness	156 (48.59)	165 (51.41)
HIV awareness and modes of transmission	238 (74.14)	83 (25.86)
Awareness about contraceptives	220 (68.53)	101 (31.47)
Awareness about physiology of menstruation	113 (35.2)	208 (64.8)
Awareness about menstrual hygiene	200 (62.3)	121 (37.7)

DISCUSSION

Youth represents the energy of the present and the hope of the future. Adolescence is a crucial period in life and during growth, especially for the girl child. Adolescence is the period when the girl is getting prepared for her reproductive roles in future. Only healthy and fit adolescent seedlings of today can evolve into a beautiful tree of future.

To improve the health status of adolescents, the first step to be taken is the assessment of their specific health problems. So the present study was undertaken in a rural medical college situated in an area which drains a variety of patients mostly belonging to under privileged section of society.

In the present study, the mean age of adolescent population was 17.37 ± 2.09 years. The mean age of attainment of menarche was 12.68 ± 1.03 years. Various authors like Chaturvedi et al. (1996), Agrawal et al. (1997) and Joshi et al. (2006) reported mean age of menarche as 13.7 ± 3.6 years, 12.8 years and 10.8 years respectively.

Young adolescent girls usually have a variety of health and gynaecological problems exclusively different from their elder counterparts ranging from menstrual problems and problems related to reproductive tract. Commonly found gynaecological problems were related to menstruation.

In the present study, dysmenorrhoea was experienced by 193 (63.48%) adolescent girls. Of these 26 (13.47%) suffered from severe dysmenorrhoea. Dysmenorrhoea was probably primary in origin, due to excessive amount of prostaglandins released from endometrium during menstruation.

Oligomenorrhoea was present in 39 (12.82%). Polycystic ovarian disease in 17 (43.58%) adolescents was the commonest cause for oligomenorrhoea. No demonstrable cause for oligomenorrhoea was found in 16 (41.02%)

attributable to immaturity of the hypothalamo-pituitary-ovarian axis.

A total of 30 (9.86%) adolescent patients with menorrhagia were seen during the study period. Of these, 20 (67%) were diagnosed as dysfunctional uterine bleeding, accounted by pubertal cause due to immature hormonal set up, diagnosed by exclusion of any organic causes. None were diagnosed as having coagulation disorder.

In a similar data from one gynaecological clinic at AIIMS,² overall spectrum of problems among adolescent girls attending clinic were oligomenorrhoea (24%), menorrhagia (16%), dysmenorrhoea (12%), primary amenorrhoea (12%), hirsutism (12%), congenital anomalies of uterus/vagina (12%) and urinary infections (12%).

In a study by Allahbadia et al. (1992),³ a total of 34 adolescent patients with acute menorrhagia were studied. Of these, 44% were diagnosed as dysfunctional uterine bleeding by a technique of exclusion and 56% were diagnosed as having coagulation disorder. Of the total admissions 91% required transfusion of blood often for hypovolemic shock.

Overall it is estimated that endocrine disorders account for approximately 40% of the cases of primary amenorrhoea, with the remaining 60% having developmental defects, genetic or structural origins.

Benign ovarian cysts were found in 6 (1.86%) adolescents. 37 (11.52%) adolescents had evidence of polycystic ovaries.

Piipo S (1999)⁴ studied 79 patients operated on for an ovarian mass. 43.04% patients had a benign neoplasm and 32.9% had functional ovarian cysts. Michealmore (1999) observed polycystic ovaries in 33% of normally menstruating adolescents. Bhattacharya and Jha (2011)⁵ studied 96 adolescent girls. 51 (53.13%) of them had PCOS.

Symptoms related to breasts were present in 50 (15.58%) adolescents. Mastalgia, mostly premenstrual, was present in 29 (9.03%) cases. 7 (2.18%) adolescents had lipoma of breast. 8 (2.49%) presented with asymmetry of breasts. 1 (0.31%) had virginal hypertrophy and 2 (0.62%) had polythelia. Neinstien et al. (1993)⁶ observed 16% had fibrocystic disease and 24% had fibroadenomas.

Sonmez K et al. (2006)⁷ states the most frequent breast complaint was palpation of a breast lump. Most common histology of breast lump was fibroadenoma.

Adolescents are shy; they often do not talk to their parents for their health needs. Adolescent health clinics are a special opportunity to these young adults to talk their health problems to a concerned doctor in a congenial environment. So we made an effort to create

awareness in these girls by means of a slide show covering wide range of subjects like menarche and associated problems, menstrual hygiene, nutritional diet, prevention of anaemia, importance of exercise, correct age at marriage, HIV/AIDS and women empowerment. Their problems, therein, any queries were solved post interview maintaining confidentiality. It is the need of hour to arrange such campaigns on larger scale to promote health education.

Of the 321 adolescents studied, 248 (77.25%) were aware of the physical signs of puberty. Awareness regarding sexually transmitted diseases was present in 156 (49.59%) adolescents.

Awareness about HIV and its modes of transmission was present in 238 (74.14%) adolescents. 220 (68.53%) adolescents were aware about contraceptives. Only 113 (35.2%) were aware of the physiology involved in menstruation. 200 adolescents (62.30%) were seen to follow proper menstrual hygiene.

Awareness of physical signs of puberty was found to be 75.6% by Agrawal et al. (2007).⁸ They found that 87.2% were aware of sexually transmitted diseases. Awareness about HIV and its modes of transmission was present in 90.20% adolescents.

CONCLUSION

In the present study, 321 adolescents were studied.

Mean age of adolescent population was 17.37 ± 2.09 years.

Majority (80.59%) of adolescents had regular menstrual pattern. Irregular menstrual pattern i.e. metrorrhagia was present in 4.93% adolescents. Oligomenorrhoea (12.82%) was the most prevalent abnormality. Dysmenorrhoea was experienced by 63.48% adolescents.

Benign ovarian cysts were seen in 6 (1.86%) adolescents. None of the patients had malignant ovarian disease. 15.58% adolescents had presented with breast problems like mastalgia, lump in breast, etc. Majority (77.25%) of adolescents studied were aware of the physical signs of puberty. Awareness regarding sexually transmitted diseases was present in 49.59% adolescents. Awareness about HIV and its modes of transmission was present in majority of adolescents. But very few adolescents were aware of the physiology involved in menstruation. Around half of all the adolescents were seen to follow proper menstrual hygiene.

Recommendations

Keys to improving adolescent health:

- Recognize the importance of adolescent health and their reproductive rights.

- Improve implementation of programmes for Anaemia prophylaxis and control for adolescent population.
- Age appropriate sex education should be given to adolescents.
- Providing adolescent friendly health services and adolescent health
- Clinics to solve their problems.

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