

Study to Assess Nutritional Status, Health Problems and Psychosocial Behaviour of Adolescents in Central India

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ABSTRACT

BACKGROUND

Adolescence is the period between the onset of puberty and the cessation of physical growth roughly from 11 to 19 years of age. Adolescence vacillates between being children and being an adult. They are adjusting to the physiologic changes their bodies are undergoing and are working to establish sexual identification and use these changes for their benefit as well as that of the society. The objectives of the study were to assess the socio-demographic characteristics of boys, various adolescent health problems, explore the nutritional status of children through B.M.I and psycho-social behaviour and suicidal tendencies among adolescent boys.

METHODS

The parent study was done in Govt. Boys school which is a multistage sampling. Firstly from DOE, a list of Govt. Boys school, Gwalior was taken, and from that list the schools were randomly selected. A predesigned, pretested, structured and validated questionnaire in Hindi was given to the student returned questionnaire.

RESULTS

Out of 400 students, 176 (44 %) had fouling of gums; 44 (11 %) had bleeding gums; 152 (38 %) had hair fall, 76 (19 %) had white patches on their nails; 40 (10 %) had urinary irritation; 48 (12 %) had pain in the ear; 8 (2 %) had diabetes; 8 (2 %) had high B.P ; 12 (3 %) had asthma; 4 (1 %) had low B.P ; 176 (44 %) had acne; 100 (25 %) had short height.

CONCLUSIONS

They have simple but wide pervading crucial reproductive health needs-menstrual hygiene, contraception (including emergency contraception) safety from sexually transmitted infection (STI) and HIV. A communication gap exists between parents and other adults (lack of family connectedness) which needs to be corrected.

KEY WORDS

Adolescent, Reproductive Health, Communication Gap.

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DOI: 10.14260/jemds/2021/750

How to Cite This Article:

*Marskole P, Bhagora R, Yadav R, et al.
Study to assess nutritional status, health
problems and psychosocial behaviour of
adolescents in Central India. J Evolution
Med Dent Sci 2021;10(43):3707-3710, DOI:
10.14260/jemds/2021/750*

*Submission 16-09-2021,
Peer Review 19-10-2021,
Acceptance 22-10-2021,
Published 25-10-2021.*

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BACKGROUND

Adolescence is the period between the onset of puberty and the cessation of physical growth roughly from 11 to 19 years of age.¹

Adolescence vacillates between being children and being an adult. They are adjusting to the physiologic changes their bodies are undergoing and are working to establish sexual identification and use these changes for their benefit as well as that of the society.

They are searching for personal identity and want freedom and independence of thought and action, but they continue to have a strong dependence on their parents and suffer feelings of loss of separating from them, in reaction to this identity with their peers and tend to yield peer pressure and conform to peer values behaviour, and tests and such things as clothing, food and entertainment.

Because of the sheer no. they constitute more than 22 % of the population.

Adolescence is the period of rapid physical growth, sexual and psychological changes.

Habits that are picked up during adolescence (risk-taking behaviour, substance abuse, eating, habits, and conflict resolution) have a lifelong impact.

Adolescence is the last chance to correct growth lag and malnutrition.

Many adolescent boys & girls are sexually active but lack information and skill for self-production (low-level information of family planning, low contraception use).

They have simple but wide pervading crucial reproductive health needs-menstrual hygiene, contraception (including emergency contraception) safety from STI and HIV. A communication gap exists between parents and other adults (lack of family connectedness).

Objectives

1. To assess the socio-demographic characteristics of boy students.
2. To assess the various adolescent health problems regarding physique, general health and hygiene, sex abuse, and addiction.
3. To explore the nutritional status of children through B.M.I. and its correlation with socioeconomic status, the prevalence of obesity, anaemia etc. among adolescent boys.
4. To explore adolescent friendly behaviour, confidentiality, parental bonding, substance abuse, adoption of psycho-social behaviour and suicidal tendencies among adolescent boys.

METHODS

The parent study that was undertaken in Govt. Boys school is cross-sectional in design. Multistage random sampling was used for data collection. Firstly from DOE, a list of govt. boy's school, Gwalior was taken, and from that list the school was randomly selected. From their school, a total of 100 students from each class and each student of 9, 10, 11, and 12 was randomly selected. A total of 400 boys were selected. The

sample size according to the prevalence by the study of Kokiwar PR et al.¹ was found out to be 353, so for convenient calculation it was rounded off to 400. Permission from the principal of that school was taken so that the availability of 400 students was ensured on the demand date. Ethical permission was taken from the institute. The principal and the students were taken into confidence and were asked to fill proforma with the desired knowledge and they were convinced that this information will not be disclosed to anyone neither in school nor to their parents or the media. A predesigned, pretested, structured and validated questionnaire in Hindi was given to the student returned questionnaire. During the assessment, the students were given the proforma to fill and any queries regarding this were allowed to be asked by the students. Data was collected, analyzed, tabulated and interpreted.

Statistical Analysis

Descriptive analysis was done in terms of percentages.

RESULTS

Sl. No.	Age (In Yrs)	No. of Participants	%
1	13 yrs	17	4.25
2	14 yrs	62	15.50
3	15 yrs	105	26.25
4	16 yrs	106	26.50
5	17 yrs	74	18.50
6	18 yrs	36	09
Total		400	100

Table 1. Age of the Participants

Sl. No.	Education	Mother	Father
1	Illiterate	48 (12%)	4 (1%)
2	Up to Primary	71 (17.75%)	41 (10.25%)
3	Up to Middle	74 (74%)	29 (7.25%)
4	Up to High schools	61 (15.25%)	63 (15.75%)
5	Up to Higher Secondary	85 (21.25%)	116 (29%)
6	Graduate	48 (12%)	107 (26.75%)
7	Post Graduate	13 (3.25%)	40 (10%)
Total		400	400

Table 2. Social Profile of the Patient

Sl. No.	Occupation	Mother	Father
1	Govt. Job	19	114
2	Private Job	101	112
3	Business	71	162
4	Other (Home makers etc.)	209	12
Total		400	400

Table 3. Occupation of the Parents

Sl. No.	Religion	No. of Participants	%
1	Hindu	381	95.25
2	Muslim	16	4
3	Christian	0	0
4	Sikh	3	0.75
Total		400	100%

Table 4. Social Profile of Students

Sl. No.	Religion	No. of Participants	%
1	Scoring	217	29.25
2	Dislike to go to school	42	10.5
3	Any other	18	4.5
4	No problem	223	55.75
Total		400	100%

Table 5. Problems Faced by the Students in the School

Sl. No.	Frequency of Distraction	No. of Participants	%
1	Very often	163	40.75
2	Sometime	164	41
3	Never	73	10.25
Total		400	100%

Table 6. Any Distraction during Studies

Sl. No.	Perception	No. of Participants %	
		Yes	No
1	Concerned about weight	116	234
2	Conscious about the looks	177	223
Total		400	400

Table 7. Perception of Students about Physical Appearance

Sl. No.	Behaviour Aspect	Frequency		
		Never	Once or Twice	Frequently
1	Participants in extracurricular activities	90	149	161
2	Aggressiveness with friends on trivial issue	174	154	72
3	Feeling of depression	317	53	30

Table 8. Behavioural Aspects of the Students

Sl. No.	Feature	Perception			
		Yes	%	No	%
1	Feeling of fear of someone at home	175	43.75%	225	56.25%
2	Suicidal tendencies	52	13%	348	87%
3	Attraction to the opposite sex	180	45%	220	55%
4	Ever have/had a sex	79	19.75%	321	80.25%
5	Inquiry about the utilization of pocket money by parents	176	44%	224	56%
6	Feeling of jealousy with siblings	27	6.75%	373	93.25%
7	Self vehicle	48	12%	352	88%
8	Self Mobile phone	193	48.25%	207	51.75%
9	Communication problems with others due to language problem	132	33%	268	67%
10	Partiality in school by teachers	71	17.75%	329	82.25%
11	Impact of partiality on student's	40	10%	360	90%
12	Trusted by parents	353	88.25%	47	11.75%
13	Helpful in household chores	359	89.78%	41	10.25%

Table 9. Perception about Morality

Sl. No.	Type of Addiction	Frequency		
		Never	Once or Twice	Frequently
1	Smoking	315	60	24
2	Alcohol	0	44	356
3	Other Drugs	0	8	392

Table 10. Addiction Status

Sl. No.	Habitual Behaviour	No. of Responses	%
1	Watching TV > 4 hr.	193	48.25
2	Use of Internet > 3 hr.	57	14.25
3	Use of Mobile > 3 hr.	150	37.5
Total		400	100%

Table 11. Other Habitual Behaviour

Sl. No.	Problem	Participant	%
1	Fouling Gums	176	44
2	Bleeding Gums	44	11
3	Hair fall	152	38
4	White Marks on nail	76	19
5	Urinary Irritation	40	10
6	Pain in Ear	48	12
7	Diabetes	8	2
8	High B.P.	8	2
9	Asthma	12	3
10	Low B.P.	4	1
11	Acnes	176	44
12	Short Height	100	25
13	No Problem	36	9

Table 12. General Health and Hygiene

Sl. No.	BMI	No. of Participants	%	
1	Low	207	51.75	
2	Normal	133	33.25	
3	Probes	1.	38	9.5
		2.	14	3.5
		3.	6	1.5
		2	0.5	

Table 13. BMI

Sl. No.	Occupation	Participants	%
1	Govt. Job	60	15
2	Private Job	237	59.25
3	Other	103	25.75
Total		400	100

Table 14. Father's Occupation

Sl. No.	Behaviour	No. of Participants	%
1	Loving A & caring	236	59
2	Strict	148	37
3	Indifferent	16	4
Total		400	

Table 15. Behaviour of Parents towards Participants

Sl. No.	Problem	Yes	%	No	%
1	Obesity	43	10.75	357	89.25
2	Acne	53	13.25	347	86.75
3	Spectacles	138	34.50	262	65.50

Table 16. Physique Related Problem

DISCUSSION

1. General Health and Hygiene

Currently, studies of hygiene practices mostly focus on oral hygiene according to previous studies by Maes L, et al.² Siziya S, et al.³ and McKittrick TR, et al.⁴ the prevalence of hygiene practices (especially hand hygiene) among adolescents is poorly described.

Out of 400 students, 176 (44 %) had fouling of gums; 44 (11 %) had bleeding gums; 152 (38 %) had hair fall, 76 (19 %) had white patches on their nails; 40 (10 %) had urinary irritation; 48 (12 %) had pain in the ears; 8 (2%) had diabetes; 8 (2 %) had high B.P; 12 (3 %) had asthma; 4 (1 %) had low B.P; 176 (44 %) had acne; 100 (25 %) had short height.

2. Addiction Problems

Out of 400 students, 26 (6 %) smoked frequently; 356 (89 %) consumed alcohol frequently; 193 (48.25 %) watched T.V. more than 4 hrs; 57 (14.25 %) used the net for more than 3 hrs; 150 (37.5 %) on mobile phone for more than 3 hrs. Prashant et al. reported an overall prevalence of substance use as 32.7 % in Andhra Pradesh.

Sinha⁵ found a prevalence of smoking to be 19.4 % in school students of Bihar.

3. Sex-related Problems

Out of 400 students, 79 (19.75 %) had sex but none of them was sexually abused by someone.

4. Psychological Problems

Out of 400 students, 180 (45 %) had an attraction towards the opposite sex; 30 (7.5 %) had a feeling of depression for more than 2 weeks; 52 (13 %) had suicidal tendencies; 343 (85.75 %) were conscious about their weight and looks; 327 (81.75 %) were distracted during their studies.

5. Personal Issue among Adolescent Boys

Out of 400 students, 193 (48.25 %) had their mobile phones; 48 (12 %) had their vehicles and 353 (88.25 %) were trusted by their parents.

6. School Related Problem

Out of 400 boys, 330 (82.5 %) were having problems related to school matters in which 217 (29.25 %) were having problems related to marks; 42 (10.5 %) had problems related to going to school; 71 (17.75 %) were having problems due to partiality by teacher and 40 (10 %) students were psychologically affected by partiality in school.

7. Physique Related Problem

Out of 400 boys, 43 (10.75 %) were obese; 53(13.25 %) were having acne and 138 (34.5 %) used spectacles.

8. Family Related Matters

Out of 400 students, 176 (44 %) got their pocket money and were enquired about its utilization by the parents and 27 (6.75 %) were jealous of their siblings.

9. Assessment of Nutritional Status through B.M.I. and Its Correlation with Socio-Economic Status

Out of 400 students, 207 (51.75 %) were underweight; 133 (33.25) were normal wt. and 38(9.5 %) were obese.

The majority of the students 44.25 % (177) belonged to the 6966-11609 socio-economic group.

Most of the underweight students belonged to the lower socio-economic group.

Thus, it is recognized that most of the students who were under wt belonged to lower socio-economic better nutritional status.

CONCLUSIONS

They have simple but wide pervading crucial reproductive health needs-menstrual hygiene, contraception (including emergency contraception) safety from STI and HIV. A communication gap exists between parents and other adults (lack of family connectedness) which needs to be corrected.

Recommendations

The recommendation which can be made from the present study for children & parents are as follows:

- Children were advised to get regular health check-ups. (10)

- Children were educated about the importance of physical activity & daily exercise.
- Children were advised to remain truthful to their parents & share each & every problem of their life with them.
- Parents were advised to encourage & support their children in the field of his/her interest instead of imposing their dreams on them.
- Parents were advised to keep a check on their children's activities so that they don't get involved in any activity which could be harmful to them.
- Parents were told to inculcate healthy feeding habits among their children.

Data sharing statement provided by the authors is available with the full text of this article at jemds.com.

Financial or other competing interests: None.

Disclosure forms provided by the authors are available with the full text of this article at jemds.com.

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