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Sharma Gagan

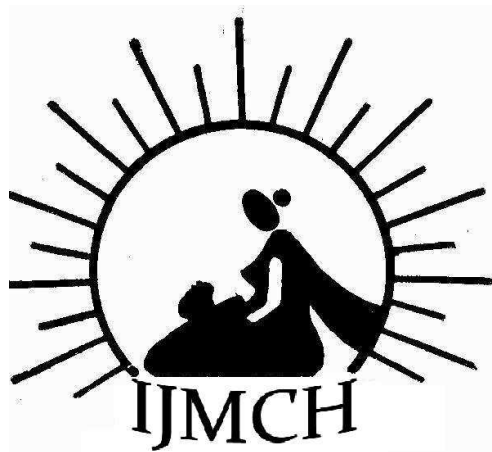
Sachar R K

Devgun P

Singh GPI

Soni R K

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To study the health of adolescent boys in urban and rural areas of Ludhiana, Punjab

An Appraisal of Physical, Mental and Social Health of Adolescent Boys (10-19years) In Urban and Rural Areas of Ludhiana, Punjab.

Sharma Gagan,* Sachar R K, ** Devgun P,*** Singh GPI, ****Soni R K. *****

*SMO, NPSP, Shahjahanpur, Uttar Pradesh.

**Professor &Head, Department of Community Medicine, SGRDIMSR, Sri Amritsar.

*** Associate Professor, Department of Community Medicine, SGRDIMSR, Sri Amritsar.

***Director Principal AIMSR, Bathinda.

**** Professor Biostatistics, DMC&H Ludhiana

Correspondence Dr Gagan Sharma

drgagansharma_77@yahoo.com

Abstract

Objectives: To study the health of adolescent boys in urban and rural areas of Ludhiana, Punjab

Settings: Urban and rural field practice areas of Dayanand Medical College and Hospital, Ludhiana, Punjab.

Period of study: January 2005 –June 2005.

Study design: Cross sectional.

Sampling technique: 30 clusters of 7 subjects of boys aged 10-19 years each from urban and rural area.

Sample size: 210 subjects each from urban and rural areas totaling 420 subjects.

Methodology: The subjects were visited at home and administered a pre tested pro forma to elicit information on the following:

Results: School enrollment rates were very high. The urban subjects were better on most of the parameters.

Key words: *Male adolescents, schooling, physical health, mental health, social health, rural, urban.*

Introduction

In most parts of the world, there has been a rapid increase in concern about the health needs of the adolescents. On a global scale, adolescent health continues to be neglected because of two reasons—those who provide health care fail to recognize special needs of adolescents and adolescents themselves tend not to utilize the services which are available. Though health concerns usually rank low on the list of priorities of most young adults, such concerns are legitimate and important (1).

‘Adolescence is like a cactus’. Today’s adolescents face demands and expectations, as well as risks and temptations that appear to be more numerous and complex than faced by adolescents a generation ago (2).

Many of the factors linked to poor health, risk of early death in the adult years begin during the period of adolescence. Some behaviors warrant considerable concern because of their potential for harm adolescence and later life (3).

In the last quarter of the century there has been a very sharp focus on the health issues related to the female gender. This preoccupation with the female has pushed the attention on male issues, particularly in the neglected groups like male adolescents into the background. Hence information on health and related issues male adolescents is lacking. The present study which is an appraisal of health of adolescent boys in Ludhiana district (Punjab) is an attempt to address this issue.

MATERIALS AND METHOD

Settings: Urban and rural field practice areas of Dayanand Medical College and Hospital, Ludhiana, Punjab.

Period of study: January 2005 –June 2005.

Study design: Cross sectional.

Sampling technique: 30 clusters of 7 subjects of boys aged 10-19 years each from urban and rural area.

Sample size: 210 subjects each from urban and rural areas totaling 420 subjects.

Methodology: The subjects were visited at home and administered a pre tested pro forma to elicit information on the following:

Physical health and its measurement which includes

Personal hygiene, eating habits, weight and height. For personal hygiene and eating habits a construct was made and grading was done using the Likert's scale (4).

Mental Health using a construct and Likert's scale was used for grading.

Self esteem was measured using the Cooper Smith self esteem inventory (5). and grading of the standard scores was done using the Likert's scale.

Intelligence was measured according to the intelligence quotient (IQ) by the Cattle Culture Fair test (6) and grading was done using the Likert's scale.

Social health was measured using a construct and grading was done using the Likert's scale.

Socio economic status was measured by Modified Uday Pareek scale (7).
(P.S. Unless indicated otherwise the constructs were self devised)

Observations and Discussion

Table I: Distribution of subjects according to age group.

Age (years)	N	Percentage
10-14	242	57.4
15-19	178	42.5
Total	420	100

There was a preponderance of younger boys, 57.4 %. This could be due to the fact that older adolescents were not included in the study because of inability of the investigator to meet them due to their preoccupation.

Further a majority of the subjects were local. This may be due to the characteristics of the study area.

A vast majority of boys were still studying. This is a reflection of the premium on the male gender. This view is supported by Sudhakar C J (8).

Table II: Distribution of subjects according to place of origin.

Place of origin.	N	Percentage
Local	352	83.8
Immigrant	68	16.2
Total	420	100

Table III :Distribution of subjects according to their present status of schooling.

Enrollment.	N	Percentage
Still studying	391	93.1
Completed 10 th class	4	0.9
Drop outs	18	4.3
Never enrolled	7	1.7
Total	420	100

Table IV: Distribution of subjects according to Personal Hygiene score.

Personal hygiene		N	Percentage
Score (8-16)	Category		
8-11	Poor	103	24.5
12-15	Fair	227	54.0
>15	Good	90	21.4
Total		420	100.0

The urban subjects had a better mean personal hygiene score, 14.27 ± 2.11 as compared to their rural counterparts 12.63 ± 2.10 . This difference was statistically highly significant ($F=63.67$, $p=0.000$). Overall only a fifth of the boys maintained good personal hygiene. This is similar to findings of Garnier *D* (9) who reported better personal hygiene in urban residents.

Table V: Distribution of subjects according to Eating Habits score.

Eating habits		N	Percentage
Score* (5-35)	Category		
>26	Poor	29	6.9
16-26	Moderate	199	47.4
5-15	Good	192	45.7
Total		420	100.0

*Higher scores denote poor eating habits.

The eating habits of rural subjects were poorer, mean score 16.85 ± 5.78 , than the urban ones, mean score 15.25 ± 7.06 , showing that in rural areas also junk food is available. This difference was statistically significant ($F6.415$, $p=0.12$). Overall only 6.9 % of boys had poor eating habits.

Table VI: Distribution of subjects according to Age and Weight.

Age group (years)	Weight (kgs.)		
	Frequency	Range	Mean \pm SD
10-14	242	20-70	33.92 \pm 77.57
15-19	78	32-73	52.09 \pm 9.26

Table VII: Distribution of subjects according to Age and Height.

Age group (years)	Height (cms)		
	Frequency	Range	Mean \pm SD
10-14	242	140.80-172.70	41.20 \pm 15.25
15-19	78	137.10-182.80	164.60 \pm 7.33

It was also seen that that for all age groups, the subjects had lower weights and heights when compared to National Center for Health Statistics (NCHS). This may be due to the fact that NCHS standards are for American boys.

Table VIII: Distribution of subjects according to Mental Health score.

Mental Health		N	Percentage
Score (9-33)	Category		
9-17	Poor	72	17.1
18-26	Fair	297	70.7
>26	Good	51	12.1
Total		420	100.0

17.1 % of the subjects were categorized as having poor mental health. The mental health score of rural subjects was 20.85 ± 3.55 , while the urban counterparts fared better with their mean score being 22.38 ± 4.56 . This difference was statistically highly significant ($F=14.67$, $p=0.000$). These findings are different from those of Swartz *et al* (10) who reported poor mental health in urban subjects.

Table IX: Distribution of subjects according to Self Esteem score.

Self Esteem		N	Percentage
Score (Percentiles)	Category		
25	Low	87	20.7
25-75	Medium	322	76.67
>75	High	11	2.67
Total		420	100.0

One fifth of all boys had low self esteem. The rural subjects had higher mean self esteem score than their urban counterparts, 66.66 ± 13.30 and 62.39 ± 12.52 . This difference was statistically highly significant ($F=11.456$, $p=0.001$). Where as 76.67 % Of the boys had

medium self esteem, another study in the same area, on adolescent girls reported this proportion as 86.8% (11).

Table X: Distribution of subjects according to Intelligence Quotient score.

Intelligence Quotient		N	Percentage
Score (0-140)	Category		
0-69	Low	178	42.4
70-109	Medium	241	57.4
≥110	High	1	0.2
Total		420	100.0

42.4 % of the subjects had low IQ. The urban boys had mean IQ scores very marginally higher, 71.96 ± 14.44 and 71.73 ± 13.11 . This difference was not significant ($F=0.028$, $p=0.868$). Similarly Abramwicz H K observed no relationship between place of residence and IQ score in the adolescents (12).

Table XI: Distribution of subjects according to Social Health score.

Social Health		N	Percentage
Score (11-51)	Category		
11-24	Poor	2	0.5
25-38	Acceptable	137	32.6
>38	Good	281	66.9
Total		420	100.0

Over two third of the subjects enjoyed good social health. There was no difference between rural and urban subjects.

Table XII: Distribution of subjects according to Socio Economic Status (MUP Score).

Socio Economic Status		N	Percentage
Score (13-42)	Category		
<16	Low	23	5.5
17-25	Low middle	167	39.8
26-34	High middle	224	53.3
>34	High	6	1.4
Total		420	100.0

More than 90% of the subjects belonged to the middle socio-economic class. The mean MUP score of the rural boys was 24.91 ± 4.58 while in the urban subjects it was 25.88 ± 5.16 . This difference was statistically highly significant ($F = 4.15, p = 0.000$).

References

1. Paxman M J, Zuckerman R J. Laws and policies affecting adolescent health. Geneva. World Health Organization. 1987: 1
2. Santrok W J. Children (6th edition) University of Texas at Dallas. 2000:41.
3. *ibid*: 507.
4. <http://www.socialresearchmethods.net/kb/scallik.php>
5. Coopersmith S. Self esteem inventories (1986).PALO, AITO. Consultant Psychological Press, INC. California. <http://www.mindgarden.com/products/cseis.htm>
6. Cattell, RB. Culture-Fair Intelligence test. Published by Institute for Personality and Ability Testing (IPAT) .University of Illinois, USA
7. Pareek U, Trivedi G. Manual of socio economic status scale. Manasayan publishers, Delhi.979.
8. Sudhakar C. Universalisation of girls education. Community participation. Jr of Education and Social change,1999;12(4):14-27
9. Garnier D, Ndiaye G, Benefice E. Influence of urban migration on physical activity, nutritional status, and growth of Senegalese adolescents of rural origin. Bull Soc Pathol Exot, 2003;79(3):223-27.
10. Swartz M, Landerman R, Blazer D, George. Somatisation symptoms in the community. A rural/urban comparison. <http://www.ncbi.nlm.gov/entrez/query.fcgi>
11. Sachar R K, Singh H, Soni R K *et al*. A study of self esteem and its correlates among adolescent girls (9-19 years) in rural Punjab” Ind. Jr. of Preventive and Social Medicine, 1997; 28(3 &4):65-73.
12. Abramwicz H K, Richardson S A. Epidemiology of severe mental retardation in children: Community studies. Am Jr of Mental Defic, 1975; 80(!):18-39.