



## A STUDY TO SCREEN PHYSICAL HEALTH AND PSYCHOSOCIAL ISSUES AMONG YOUNG ADOLESCENTS IN AMRITSAR AND ITS ASSOCIATION WITH GENDER

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**ABSTRACT** **Background:** India being the land for almost one fifth of the adolescents of the world, there is the need for gauging their physical, psychosocial and mental health status for their better upbringing. **Objectives:** To assess the physical, psychosocial and mental health of the young adolescents. **Methodology:** A cross sectional study in 2 randomly selected schools of urban and rural areas located near Government Medical College (GMC), Amritsar was done in young adolescents of age group 10 to 14 years. Adolescents of this age group attending OPD at Department of Pediatrics, GMC, Amritsar were also included. **Result:** Out of 500 young adolescents interviewed, 22% often had doubts about their weight or height being less or more while almost one third of the participants (32.8%) sometimes felt so. 18.2% of the participants were often influenced by the friends for bunking or teasing others while 12.8% felt the same only sometimes. 19% of the respondents often had difficulty in concentrating on the studies or work while it was experienced sometimes only by 26.2% of them. More than half of the participants (56.8%) didn't exercise at all or played any outdoor games. **Conclusion:** Adolescence being a very crucial stage of life, regular physical health checkups and counseling sessions are the need of the hour for their healthy and bright future.

**KEYWORDS :** Adolescent, Physical, Mental, Psychosocial, Health

### INTRODUCTION

Early adolescence is the most important and turbulent period of transition in life where there are many physical, psychological and emotional changes. When this passage from childhood to adulthood occurs, an important landmark is covered in the fields of their thinking patterns and behavior which determines their health related outcomes.<sup>1</sup>

As per statistics of 2019, Adolescents were estimated to be 268 million in India, which account to be about one-fifth of India's population.<sup>2</sup>

The upheaval of adolescence is associated with an increase in risk for anxiety, depression, psychosomatic and other mental disorders.<sup>3</sup> Teenagers are unaware of their condition, not knowing where to seek help, neither want to be treated differently from their peers, or feel ashamed of their illness.<sup>4</sup> WHO also estimates 10 to 20 percent of adolescents suffer from mental health issues and half of the conditions arise by 14 year of age.<sup>5</sup>

According to WHO, about 30 percent origin of diseases globally is during adolescent period, mainly due to traumatic injury, suicide, violence, infections like HIV, measles, etc while most common cause of morbidity among adolescents includes depressive disorders, followed by iron deficiency anemia, neck pain, etc.<sup>6</sup>

In India, National Family Health Survey reveals that in 15 -19 age group, 20.6 percent females and 18.9 percent male suffer from obesity while 4 percent, 8 percent, 11 percent and 24 percent reported to be suffering from obesity, diabetes, tobacco use and HTN respectively in 2014-16.<sup>7</sup>

In a descriptive study among adolescent girls in Delhi by Gupta Sand Sinha A, 17.4 percent of adolescent girls were not even aware about the facts of adolescent physical changes.<sup>8</sup>

Adolescents constitute a very intricate and preeminent segment of the population. Therefore, for the development their holistic health, there is a need to identify adolescents who require screening and counseling for various physical, psychosocial and emotional components of life.

### Aim and Objectives

- To assess major physical, psychosocial and mental health issues among adolescents
- To determine the association between physical/ psychosocial health issues among adolescents and their gender.

### METHODOLOGY

Type of the study done was cross-sectional.

Duration of the study was 11 months.

**Sample Size:** 500 young adolescents were included in the study.

### Inclusion Criteria

- Adolescents in the age group of 10 to 14 years and attending outpatient department of Pediatrics in Government Medical College Amritsar
- Adolescents in 2 randomly selected schools affiliated to PSEB or CBSE, located around GMC Amritsar (1 in urban areas and 1 in rural region), in the age group of 10 to 14 yrs.
- Adolescents for whom informed consent is obtained from parents/school incharges

### Exclusion Criteria

- Adolescents having acute sickness like fever, vomiting, diarrhea, pain abdomen or breathing difficulty
- Adolescents who were not able to read or write Hindi/ English
- Adolescents not willing to participate in the study

### Study Tool

A pre tested questionnaire was used in which question had 4 options ranging from never, sometimes, often or did not understand the questions. All the 4 options were given score of 1, 2, 3 and 4 respectively.

Different health aspects of the participants were covered through our questionnaire like physical health, psychosocial health and mental health and risk of non-communicable diseases.

### Statistical Analysis

The data thus collected was compiled using Microsoft Excel and analyzed using Epi Info7. The tables and figures have been used to represent the data wherever suitable. Frequencies and proportion have been calculated for categorical variables.

### Ethical Consideration

The study commenced only after obtaining approval from the Institutional Ethical Committee. The aims and objectives of the study were explained, followed by obtaining a written informed consent from the participant.

### RESULTS

**Table 1: Distribution Of Respondents According To Physical Health Issues**

Physical Health Issue	Often (%)	Sometimes (%)	Never (%)	Did not understand (%)	Total

Doubts about Height/ Weight	110 (22%)	164 (32.8%)	218 (43.6%)	8 (1.6%)	500 (100%)
Pimples, Acne Affecting Being Social	107 (21.4%)	81 (16.2%)	304 (60.8%)	8 (1.6%)	500 (100%)
Worrying About Physical Changes	105 (21%)	48 (9.6%)	315 (63%)	32 (6.4%)	500 (100%)
Experiencing Fatigability, Tiredness	84 (16.8%)	175 (35%)	235 (47%)	6 (1.2%)	500 (100%)
Dizziness, Palpitations, Dry Mouth	82 (16.4%)	67 (13.4%)	343 (68.6%)	8 (1.6%)	500 (100%)

According to the above table, 43.6% of the respondents never had such issues regarding their height or weight being less or more than normal in their mind. Almost one fifth (21.4%) of the respondents were often affected from being social due to their pimples or acne. Almost same percentage of the respondents were often worried about the physical changes in their body. 35% of the respondents sometimes experienced fatigability or tiredness during their daily chores.

**Table 2: Distribution Of Respondents According To Psychosocial Health Issues**

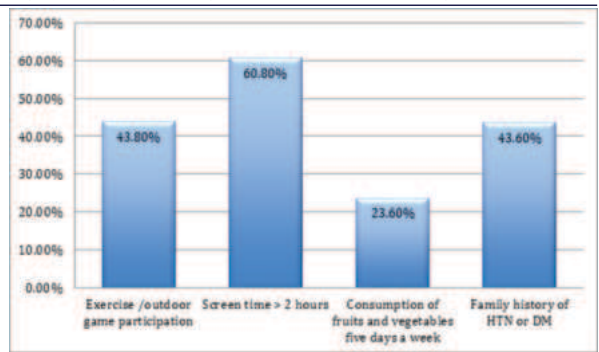
Psychosocial health issues	Often (%)	Sometimes (%)	Never (%)	Didn't Understand (%)	Total (%)
Feeling Of Suffering From Some Serious Illness	84 (16.8%)	75 (15%)	320 (64%)	21 (4.2%)	500 (100%)
Easily Influenced By Friends For Bunking, Teasing Others	91 (18.2%)	63 (12.6%)	330 (66%)	16 (3.2%)	500 (100%)
Worries A Lot	85 (17%)	81 (16.2%)	329 (65.8%)	5 (1%)	500 (100%)
Feeling of Restless, anxiety, Headache, Tremor	52 (10.4%)	154 (30.8%)	287 (57.4%)	7 (1.4%)	500 (100%)
Argues With Family, Friends ,Teachers	88 (17.6%)	119 (23.8%)	283 (56.6%)	16 (3.2%)	500 (100%)

As per the table, almost two- third (64%) of the respondents never had feeling of suffering from some serious illness. 18.2% of the respondents were easily influenced by their friends for bunking the classes or teasing others while 17% of the young adolescents admitted that they worry a lot. Nearly one third (30.8%) of the respondents had the feeling of restlessness, anxiety, headache or tremors only sometimes. More than half of the adolescents (56.6%) never argued with family, friends or teachers.

**Table 3: Distribution Of Respondents According To Mental Health Issues**

Mental health issues	Often (%)	Sometimes (%)	Never (%)	Didn't Understand (%)	Total (%)
Feeling Unhappy or Sad	82 (16.4%)	116 (23.2%)	288 (57.6%)	14 (2.8%)	500 (100%)
Feeling Less Interested In earlier Enjoyable Activities	89 (17.8%)	127 (25.4%)	274 (54.8%)	10 (2%)	500 (100%)
Having trouble falling Asleep	81 (16.2%)	51 (10.2%)	350 (70%)	18 (3.6%)	500 (100%)
Difficulty in sitting for long period	98 (19.6%)	144 (28.8%)	252 (50.4%)	6 (1.2%)	500 (100%)
Difficulty in concentrating on work/ studies	95 (19%)	131 (26.2%)	262 (52.4%)	12 (2.4%)	500 (100%)

The table above shows that status of mental health of the young adolescents. 16.4% of them often feel unhappy or sad. One fourth of the adolescents (25.4%) sometimes felt less interested in earlier enjoyable activities. Majority (70%) of them never had trouble falling asleep. Half of them(50.4%) never had difficulty in sitting for long duration. However 19% of them reported that they often have difficulty in concentrating on work or studies.



**Figure 1: Distribution Of Respondents According To Risk Of Non Communicable Diseases**

According to the figure above, less than half (43.8%) of the young adolescents exercised and participated in outdoor games. Screen time of more than 2 hours was observed in 60.8% of the respondents. Only one fourth (23.6%) of the adolescents consumed green leafy vegetables and fruits in their routine diet at least five days a week. 56.4% of the respondents told that they have a family history of hypertension, diabetes mellitus or any heart disease.

**Table 4: Distribution Of Respondents According To Association Between Physical Health Issues And Gender**

Physical health issue	Gender	Often (%)	Sometimes (%)	Never (%)	Did not understand (%)	Chi-square test
Doubts about weight/ height	Male	51	80	106	3	p value: 0.9088
	Female	59	84	112	5	
Pimples	Male	52	41	150	2	p value: 0.5854
	Female	55	40	154	6	
Worrying about physical changes	Male	41	12	168	18	p value: 0.0004
	Female	64	36	147	14	
Fatigability, tiredness, dizziness	Male	48	87	112	3	p value: 0.5252
	Female	36	88	123	3	
Palpitations and dry mouth	Male	42	34	161	5	p value: 0.7199
	Female	40	33	182	3	

As per the above table, worrying about physical changes was significantly associated with female adolescents as compared to male adolescents. Doubts about weight /health or pimples or fatigability, tiredness, dizziness or palpitations with dry mouth were not associated with any specific gender.

**Table 5: Distribution Of Respondents According To Association Between Psychosocial Health And Gender**

Psychosocial health issues	Gender	Often (%)	Sometimes (%)	Never (%)	Did not understand (%)	Chi-square test
Feeling of suffering from serious illness	Male	43	37	162	10	p value: 0.9880
	Female	41	38	158	11	
Easily influenced by friends for bunking	Male	35	25	172	10	p value: 0.0348
	Female	56	38	158	6	
Worries a lot	Male	40	38	165	2	p value: 0.8950
	Female	45	43	164	3	
Feeling restless, anxiety, headache, tremor	Male	25	78	143	3	p value: 0.0706
	Female	27	76	144	4	
Argues with family, friends, teachers, etc	Male	55	79	151	6	p value: 0.0249
	Female	33	40	132	10	

Considering the relationship between psychosocial health and gender of the participants, no significant association was found between them except for being easily influenced by friends for bunking which is commoner in the females as compared to males. Secondly, males

argued more with family, friends, teachers, etc when compared to their female counter-parts.

## DISCUSSION

Adolescents are the future of the nation. As a result of the continuous process of development of their physical, cognitive, psychological and emotional components, a more comprehensive description can be found in young adolescents' comprehensive development.<sup>9</sup> One of the foremost things that effects the minds of young adolescents is the way they look when nobody is around. The societal standards of appearance and behavior enforces rigidity upon their mindset.<sup>10</sup> According to a study done by Ambika and Neeraj, on 80 young adolescents from Bangalore high school, irrespective of the gender, the physical looks do play a crucial part in development of their self- confidence.<sup>11</sup>

As per WHO, it is estimated that 3.6% of 10–14 year olds experience an anxiety disorder while depression is estimated to occur in 1.1% of young adolescents.<sup>12</sup> As per a study done by Pahwa et al in adolescents in Punjab, 3.2% of them suffered from depression and 3.5% of them suffered from anxiety.<sup>13</sup> The present study shows a higher percentage as it was after the covid 19 pandemic. The latter has generally raised the threshold for peace, satisfaction and serenity in the lives of the adolescents as well as people as whole.

India being a third world country, considerable proportion of adolescents, due to undesired and unfavorable atmosphere at home, school and society become the victims of various behavioral problems such as verbal aggressiveness (arguing), hyperactivity, social withdrawal and other psychological disorders.<sup>14</sup>

As the children mature, peers become an extremely important component in their fabric of life. According to a study done by Albert et al, peer influences hold more importance at the age of 10-14 years as compared to those aged 14 -18 years old.<sup>15</sup> After Covid-19 pandemic, Screen Based Media (SBM) has become an integral part of the lives of everyone, the young adolescents being no exception. A study done among adolescents in New Delhi by Dubey M et al reveals that the proportion of participants who had screen time of more than 2 hours was 68% among the total study population<sup>16</sup> which is almost similar to our present study. According to 'The 2022 India Report Card on physical activity for children and adolescents', approximately half of the adolescents met the minimum recommendation of 60 min of Moderate to Vigorous Physical Activity per day<sup>17</sup> which almost corroborates to the present study.

Strength of the study is the focus of the study on the starting years of adolescence. If the foundation is strong, the building will have the strength to bear toughest challenges in nearby future. The young adolescents can be counseled at very beginning of adolescence and guided about the changes they are going to encounter in coming five to ten years, be it physical, mental, psychosocial or the behavioral issues related to life style diseases.

Limitation of the study includes the time constraint as the psychosocial issues and mental issues can't be estimated in one meeting with the participant. Such issues can be dealt effectively if the participant is questioned a couple of times. Secondly, data of out of school young adolescents could not be represented in this study.

Therefore, adolescence is a period of great turmoil, with pre-teenagers facing issues in various spheres of life. Hence, there is a need to focus on the development for the holistic health of the future of the nation.

## REFERENCES

- Ratra D and Singh K (2022) Personal wellbeing among adolescents and youth in India. *Front. Psychol.* 13:914152. doi: 10.3389/fpsyg.2022.914152
- Dandona et al. Review of the India Adolescent Health Strategy in the context of disease burden among adolescents. *The Lancet Regional Health - Southeast Asia.* 2023 september 27;20(100283):
- Patton GC, Viner R. Pubertal transitions in health. *The lancet.* 2007 Mar 31;369(9567):1130-9.
- Tonin V. Young people seeking mental-health care. *The Lancet.* 2007 Apr 14;369(9569):1239-40.
- World Health Organization. Adolescent mental health.[Internet].[pristupljeno 18. 5. 2022.]. Dostupno na: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health>.
- Klein JD. Adolescent Health Measurement—A Necessary Step Toward Achieving Global Goals. *Journal of Adolescent Health.* 2021 May 1;68(5):836-9.
- Pemde HK, Sathya R, Kataria D, Patra S. Development of a Questionnaire to Screen Physical Health and Psychosocial Issues among Adolescents. *Postgraduate Journal of Pediatrics and Adolescent Medicine.* 2022 Apr 6;1(1):21-8
- Gupta S, Sinha A. Awareness about reproduction and adolescent changes among school girls of different socioeconomic status. *Journal of Obstetrics and Gynaecology of India.* 2006;56(4):324-8.

- Omrani, A., Wakefield-Scurr, J., Smith, J., & Brown, N. (2019). Survey development for adolescents aged 11–16 years: A developmental science based guide. *Adolescent Research Review*, 4(4), 329–340. <https://doi.org/10.1007/s40894-018-0089-0>
- Crosnoe R, Johnson MK. Research on Adolescence in the Twenty-First Century. *Annu Rev Sociol.* 2011 Aug;37:439-460. doi: 10.1146/annurev-soc-081309-150008. Epub 2011 Apr 20. PMID: 29167597; PMCID: PMC5695926.
- Ambika A. & Panwar N. (2021). Self-Confidence: A Comparative Study on Young Adolescents. *International Journal of Indian Psychology*, 9(4), 2341-2347. DIP:18.01.220.20210904,DOI:10.25215/0904.220
- World Health Organization(2021) Mental health of adolescents. Available from: <https://www.who.int/news-room/fact-sheets/detail/adolescent-mental-health> [Accessed 07 february 2024]
- Pahwa, Garg M; Sidhu, Singh B, Balgir, Singh R. A study of psychiatric morbidity among school going adolescents. *Indian Journal of Psychiatry* 61(2):p 198-203, Mar–Apr 2019. |DOI: 10.4103/psychiatry.IndianJPsychiatry\_35\_16
- Thakur S, Grewal KK. A Study of Aggression among Adolescents. *International Research Journal on Advanced Science Hub.* 2021 Jan 30;3(Special Issue ICEST 1S):46–51.
- Albert D, Chein J, Steinberg L. Peer influences on adolescent decision making. *Curr Dir Psychol Sci* 2013;22:114-20. pmid:25544805
- Dubey M, Nongkynrih B, Gupta SK, Kalaivani M, Goswami AK, Salve HR. Screen-based media use and screen time assessment among adolescents residing in an Urban Resettlement Colony in New Delhi, India. *J Family Med Prim Care.* 2018 Nov-Dec;7(6):1236-1242. doi: 10.4103/jfmpe.jfmpe\_190\_18. PMID: 30613503; PMCID: PMC6293917.
- Bhawra J, Khadilkar A, Krishnaveni GV, Kumaran K, Katapally TR. The 2022 India Report Card on physical activity for children and adolescents. *Journal of Exercise Science & Fitness.* 2022 Oct;