

## Psychological, social and physiological stress among the Adolescent boys: A case study of two selected schools of Rajkot District

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### Abstract

Adolescence is unique stage and important time for laying foundation of good health of human development between childhood and adulthood. Studies suggests that adolescent males in India have many misconception about puberty & reproduction health. Puberty includes major hormonal changes along with domestic, educational and social pressure that might contribute in negative effects and disorders during adolescent development. This study conducted to understand the pubertal stress among middle adolescent population of boys. The study was conducted in two urban private schools and total 314 students on the age group of 13 to 17 were interviewed. As result we found that most of the student feel pressure of exams and fear of being compared by their parents to others. Most of the students using cell phones hence social media add the addition pressure on adolescent boys. At this time they are observing changes in their anatomy and physiology so parents should keep this changes in mind. There should be adolescent awareness program organise by school management. There are also need to be develop program for the parents to aware them regarding mental health of child at pubertal stages.

**Key words :** Puberty, Health, Mental Disorder, Parenting, Education.

Adolescence is the phase of life between childhood and adulthood, from ages 10 to 19. It is unique stages of human development and an important time for laying the foundations of good health<sup>5</sup>. Adolescents experiencing rapid physical, cognitive and psychosocial growth. This affects how they feel, think, make decisions and interact with the world around them. Increased levels of testosterone during adolescence have been

associated with increased approach related behaviour such as proactive aggression<sup>19</sup> and risk taking<sup>21</sup> among boys. After the international conference on population and development (ICDP) in 1994, adolescents represents an independent entity in world health systems<sup>9</sup>. The transformation from child to adolescent is characterized by major biological, psychological and social challenges and opportunities<sup>11</sup>. A total of 15-25% of adolescents meet the diagnostic criteria of some mental disorder like major depression, certain anxiety, eating disorder or substance use disorders in USA<sup>10</sup>.

The surge of hormones that starts the cascade of physical changes by 10 to 12 year of age in boys and 9 to 10 years of age in girls known as puberty<sup>14</sup>. Puberty represents a period of profound transition in terms of drives, emotions, motivations, physiology and social life<sup>2</sup>. Studies conducted on adolescent males in some Asian countries, including India suggest that young men have many misconception about Puberty and reproduction health<sup>16</sup>. Puberty refers to the activation of the hypothalamic-pituitary-gonadal axis that culminates in gonadal maturation, whereas adolescences is a more general term which also includes the psychological and social transition between childhood and adulthood<sup>17</sup>.

Puberty includes major hormonal changes that are liked to contribute & to depression affect and aggression<sup>3</sup> along with domestic, educational and social pressures. Therefore, the challenges of adapting to one's own changing body and expectation from family, school and society might contribute in negative effects and mental disorders during adolescent development. Among boys early

maturation has been reported to promote psychological adjustment<sup>18</sup> and the late maturation considered a list for poor adjustment and negative self-perception<sup>6</sup>. Most of the previous research on pubertal timing and mental stress has focused on girls, more information is needed on boys and on the specificity of stress, and pubertal timing among boys. This study aimed to answer the following questions using middle adolescent population.

What type of stress faced by boys at pubertal stage and what type of changes in body they are experiencing? At which age there are aware that this body is changing?

#### *Study setting :*

This study was conducted in two urban private school, one in Gondal and one in Rajkot selected as per the ease of permission. The selected schools were approached to obtain permission and total 314 students were selected in the age group of 13 to 17.

#### *Study design :*

To know the impact of pressure during puberty stage, we have made a questionnaire on the basis of psychological research papers. We made the questions in that way that we get the answers easily without any problems so first we kept some simple questions by which the student get pamper and after that we asked some questions by which we can analysis its pressure and hormonal changes.

These questions are mainly based on 3 main categories:-

1. To ask introductory questions to comfort student.

2. To understand social and educational pressure.
3. To understand the awareness with changes in body during puberty.

*Study period :*

2 month (Nov 2022-Dec 2022).

*Data entry and Data analysis :*

Data entry was done in MS Excel 2007. Data analysis and charts were prepared in MS Excel 2007.

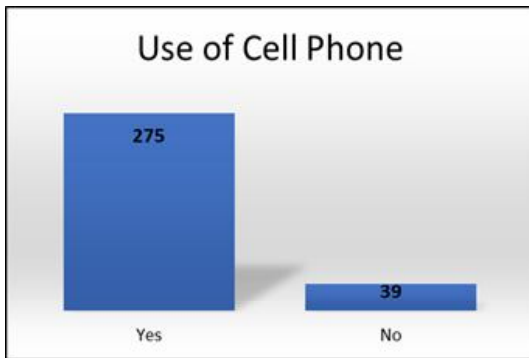


Fig. 1. Showing use of cell phone among students

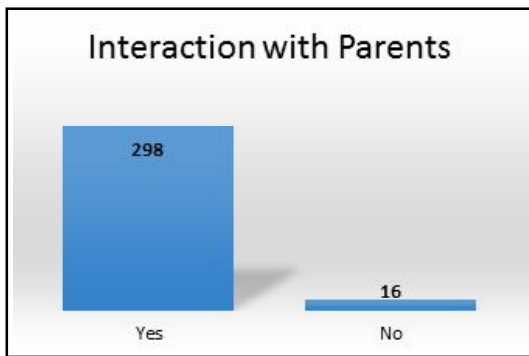


Fig. 2. Showing Interaction of students with parents

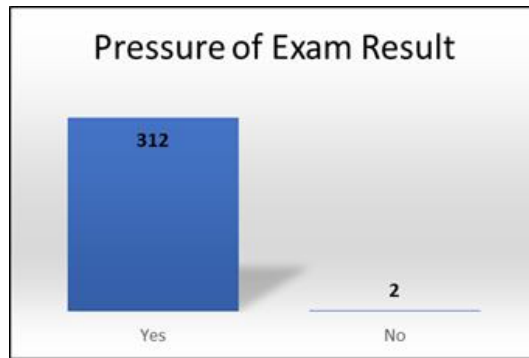


Fig. 3. Showing pressure of exam result exerted by parents to students

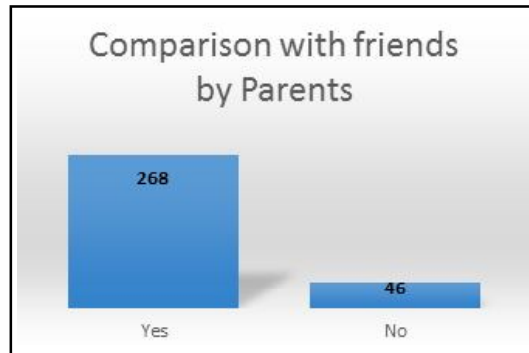


Fig. 4. Showing pressure of comparing students with their friends by parents

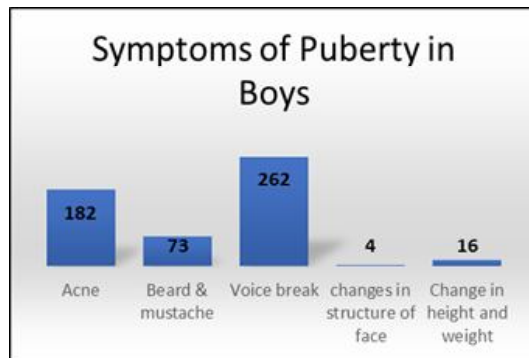


Fig. 5. Showing changes in anatomy and physiology faced by students

Questionnaires were divided into three parts among with second part Social and Education pressure and third part awareness regarding changing in body were discussed here.

*Social and education pressure :*

Evidence from a variety of cross-section, Longitudinal and empirical studies implicate smartphone and social media use in the increase in mental distress, self-injurious behaviours and suicidality among youths<sup>1</sup>.

*Use of cell phone :*

Total 275 students use cell phone and only 39 students not using cell phone (Fig. 1). High proportions of youth engage in heavy smartphone use and media multitasking, with resultant chronic sleep deprivation, and negative effects on cognitive control, academic performance and socio emotional functioning<sup>1</sup>.

*Interactions with parents :*

Total 298 students are interacting with their parents and only 16 students are not interacting (Fig. 2). Total 312 students are getting pressurised for the exam result and only 2 students are not getting pressurised from their parents (Fig. 3). A Total 268 students believe that their parents compare their self with their friends and the rest 46 don't feel the same (Fig. 4). Reviews changes in parent-child relationships during puberty, emphasizing the developmental processes that might be implicated in these changes. Evidence suggests increases in conflict and less warm interactions in relationships between parents and children

during puberty. Changes are assumed to be short-term, although little longitudinal research has directly addressed the issue of long-lasting effects<sup>12</sup>.

Because the academic pressure negatively affects student's social, physical, cognitive and physiological health. It can be related to previous negative experience, poor preparation, and worry about failure or pressure to perform<sup>20</sup>.

*Awareness regarding changing in anatomy and physiology :*

A total of 262 students have noticed voice break, 182 students have acne and 73 students have grown beard and moustache. On other hand 4 students have changed the structure of their face and 16 have changed in height and weight (Fig. 5).

The pitch of speech or speaking fundamental frequency is often used as an indicator of voice development and indirectly male hormone activity<sup>13</sup>. The maximum change in the male voice takes place at puberty<sup>4</sup>. There was a correlation between testis volume and voice parameters<sup>18</sup>. According to physical changes in body during puberty, a boy starts to change into a man. He became taller and stronger his sexual organs start to grow. This voice gets deeper and hair starts to grow in places are hair earlier been absent<sup>16</sup>.

*Age of puberty :*

Variation in the pattern of Puberty changes in boys. According to this research

paper puberty stage will start in age of 14.3 to 17.7 in boys<sup>8</sup>. According to our result students were aware about changes in anatomy or physiology at the average age of 14 year and six month.

When puberty starts in boys, their mood might change frequently. It is common for them to feel many different emotions related to their sexuality, including confusion, fear and anger. A Meta-analysis of 41 studies conducted between 1985 and 2012 in 27 countries estimated a global prevalence of mental disorder in children and adolescents of 13%<sup>15</sup>. The prevalence of child psychiatric disorders in India has been found to be 7% in the community and 23% in schools<sup>7</sup>. So parents should keep this changes in mind and should take care of the child and behave accordingly. Talk should be done properly and they should be explained that the changes that happen in their body are due to changes in physiology. Parents of boys should also be aware that during this stage confusion, fear and anger is common. The atmosphere of the house should be maintained positively and children should not feel any kind of pressure. When parents may not be able to give accurate information, this can be effectively carried out by school by organizing adolescent awareness program and make students aware about this. There are also need to be develop program for the parents to aware them regarding mental health of children at pubertal stage.

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