

Knowledge of Pubertal Changes and Self-Care in Adolescent Boys

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ABSTRACT

OBJECTIVES: The proportion of adolescents population has grown rapidly since last decade. Pakistan is among those countries having largest youth population in the world. These adolescents have some common misconceptions about pubertal changes. The purpose of this study was to determine perceptions and practices of adolescents' boys about puberty, and to assess effectiveness of educational sessions on knowledge of adolescents about puberty at secondary school F.B. area Karachi.

METHODS: Time series pre and post quasi-experimental design was used to conduct the study. Need assessment was done to assess adolescent needs of Secondary School students. On the basis of need assessment session were arranged for the student of class VIII, IX & X. Pre & Post mean score of knowledge was calculated to see the effectiveness of the sessions.

RESULTS: Over all Fifty-eight participants were enrolled in the study. However, for need assessment 15 subjects were selected. Approximately half of the participants were unaware about their pubertal age. 73.33% of the adolescents reported that they felt shame and hypersensitive over the physical changes they experience in pubertal age group. Interestingly, 53.33% of the adolescents reported that they talk about these changes with their parents. Pre-test mean score was 4.12 with standard deviation of ± 1.339 , while Post-test mean score was 5.43 and standard deviation was ± 1.523 . Adolescent scores improved from 4.12 in Pre-test to 5.43 in Post-test.

CONCLUSION: In conclusion the adolescent boys feel hypersensitive over physical changes they experience in pubertal age group. Most of them have misconceptions about puberty, which may lead to poor physical and mental health. The knowledge of adolescents regarding puberty significantly improved after educational sessions.

KEY WORDS: Adolescent, Knowledge on Puberty, pubertal changes.

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INTRODUCTION

The proportion of adolescents population has grown rapidly since last decade. About 80 percent of adolescent are living in developing countries¹. Pakistan is one of the countries having largest youth populations in the world. Adolescents comprises of 24% of the total population of Pakistan². Adolescent is a particular age group in which an individual is no longer a child but is not yet an adult³; hence they need somebody to answer their queries to guide them properly⁴. They acquire information through their own informal channels from diverse set of sources, which is inadequate, and incorrect⁵. Studies also demonstrated that majority of the boys rely on friends for sexual and reproductive health information. Moreover, unchecked and easy access to electronic media also plays a profound negative impact on the youngsters⁶.

This issue arises because parents and teachers often avoid engaging in discussions regarding pubertal changes and it affects their physical, psychological, and emotional health. Almost all the recent studies concluded that adolescents have poor access to

health information regarding puberty and self-care in Pakistan. The lack of information and societal taboos has great impact on adolescent's health and social life. Studies suggested that adolescents were affected as having early marriages, violence, sexual abuse, frustration, isolation, and depressive attacks⁷. Moreover, studies also suggested that adolescent boys had alarming misconceptions regarding pubertal changes; as one study reported that nocturnal emissions was considered as major sex related disease and a shameful thing among adolescents (boys) which leads towards fear and social isolation⁷. The literature also suggested strategies to control this problem by efficient health programs through local health providers, teachers, Non-Governmental Organizations (NGOs) and media. A recent study concluded that positive well-being during adolescence predicts better health and lowers behavioral risk among adolescents⁹. The teachers can conduct awareness campaigns and deliver information through lectures and by distributing educational pamphlets through school administration so that parents can use

important and trustworthy information for teaching their children. Teachers can also identify peer group leaders amongst the students. The locally placed government doctors or community health workers can contribute here by carrying out the training of peer leaders and can be involved in monitoring process in schools along with teachers. Parents, teachers and the adult community must facilitate open communication and by creating a friendly environment that protects adolescents from abuse, and enable them to access information and services without fear. Moreover, a comprehensive strategy of life skills has been described in literature to enable adolescents to deal effectively with the demands and challenges of everyday life. Cross sectional survey in urban and semi-urban districts of Sindh, Pakistan reported that 67.3% participants considered trained health professional as the prime source of sexual health education⁸. Whereas, another study discovered that few adolescents stole money from their homes to get prolonged and expensive treatment from traditional healers for curing nocturnal emissions⁵.

Limited studies have been conducted to determine the knowledge and practice of adolescents' male regarding puberty in Pakistan. This study will provide some understanding of pubertal knowledge among adolescents' boys. The findings from this study could be used to design strategies to properly educate adolescents about pubertal needs and practices. The purpose of this study was to determine perceptions and practices of adolescents' boys about puberty, and to assess effectiveness of educational sessions on knowledge of adolescents about puberty at secondary school F.B. area Karachi.

METHODOLOGY

Secondary School Alyabad was selected for the project "Awareness on pubertal changes and self-care". The school is located at Alyabad community, Gulberg town Federal B. Area, Karachi. Pre and Post design time series design was used to assess adolescent needs of boys, and to determine the effectiveness of educational sessions on knowledge of adolescents. The duration of study was six months from January, 2015 to July 2015. In this design data was collected before the intervention, and after teaching sessions (intervention) data is again collected. Time series pre and post design is an appropriate strategy to test the effectiveness of an intervention.

Teaching Sessions

After need assessment two sessions were arranged for the adolescents on pubertal changes and self-care for the adolescents at school. The primary investigator

and his research team facilitate students during sessions. The students of class eight nine and tenth were included in the study. Those students who already attended any workshop/session on adolescents needs were excluded. The total (n=58) adolescents (male students) were enrolled in the study through consecutive sampling technique.. Adolescents were divided into two different sessions and each session catered (n=29) students.

Data Collection and Analysis

Self-structured questionnaire was used to assess adolescents' knowledge on pubertal changes and self-care; this questionnaire was administered before and after the sessions in order to compare the impact of the intervention or teaching session. Each session consists of two stages; in the first stage of the session, the information and knowledge was given to the adolescents through power point presentation on "pubertal changes and self-care" with pictorial presentation and explanation in detail; this stage took 40 minutes followed by second stage. In the second stage of the each session, students (n=29) divided into three small group; 10, 10, and 9 in each group respectively. All the three small groups facilitated by three male facilitators as one facilitator served each group separately. In the second stage, students discussed about common issues (e.g., stress and feeling of guilt) and misconceptions (e.g. nocturnal emission is a serious health problem) related to puberty and self-care among the group members. They list down the problems on the flip chart; this stage took 30 minutes and later each group had presented the chart in front of the entire group. The session was ended with the post-test intervention. Data was double entered in SPSS version 21, and analyzed using frequency and percentages for ordinal and nominal data, mean and standard deviation for continuous data. T-test for two dependent samples was applied and to test difference between score before and after educational sessions.

Ethical Consideration

The information letter was sent to the head of the school about project and permission was taken before the initiation of study. In addition, written material for the session was also shared with the head of school. Furthermore, consent was also taken from the participants for need assessment data and for pre-post evaluation of knowledge. The participants were encouraged not to mention their names on the questionnaire and later on, codes were given to them. The confidentiality of the information was also maintained by keeping the data under lock and key and the access was given to only the project implementers.

RESULTS

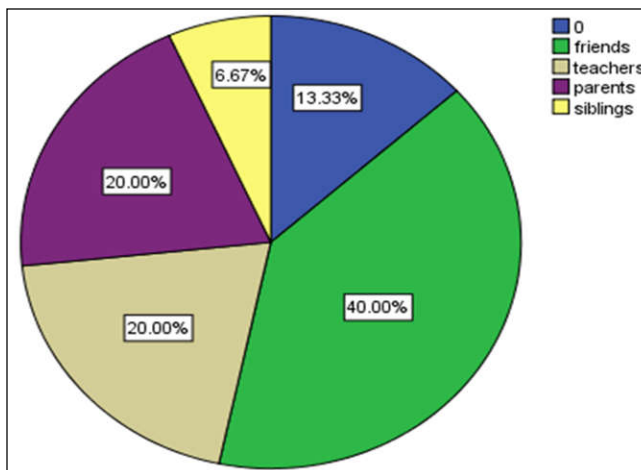
TABLE I: PERCEPTIONS AND PRACTICES OF ADOLESCENTS REGARDING PUBERTY (n=15*)

Statements	Yes %	No %
Knowledge Regarding own Puberty	53	47
Feel ashamed/sensitive about Physical Changes	73	27
Discuss about pubertal Changes with Parents	53	47
Discuss about pubertal changes with teachers	--	100
Discuss about pubertal changes with Peers/friends	93	7
Do you take care of yourself during pubertal changes	40	60
Stress During Pubertal Changes	65	35
Awareness of these changes before its appearance	60	40
Any One taught you about pubertal changes	47	53

*For need assessment 15 students were enrolled in the study.

The first set of analysis examined the students' current level regarding knowledge and practices of self-care in puberty. Simple statistical analysis was used to determine proportions of different statements regarding puberty. Table I shows the results obtained from preliminary analysis. It is apparent from this table that only 53% of the participants were having knowledge regarding their own puberty. Interestingly, 73% feel ashamed about pubertal changes. When asked whether the participants discuss about pubertal changes with their friends, teachers or parents. In response to this 93% reported that they discuss with their friends, 53% with parents and none of them discuss with class teacher. The majority 65% of the participants feels stressed during pubertal changes and 60% have some awareness regarding these changes before its appearance. The results show significant difference in knowledge of adolescents before and after sessions.

CONVENIENT SOURCE OF INFORMATIONS



It is apparent from the graph that 40% of the participants considered friends as convenient source of information, yet only 20% considered parents and teacher. Interestingly, only about & 7 % of the participants considers siblings as source of information.

Adolescents Pre & Post Knowledge Score

	Pre-session	Post-session
Quartile 1`	3.17	4.27
Quartile II	4.00	5.46
Quartile III	4.97	6.61
Mean	4.12	5.43
SD	1.34	1.52
Minimum	1	2
Maximum	8	8
Range	7	6

TABLE II: COMPARISON OF ADOLESCENTS KNOWLEDGE PRE AND POST TEST (n=58)

	Pre-Test	Post-Test	Sig (Paired T-test)
Mean	4.12	5.43	<0.001
Standard Deviation	1.34	1.52	

Before initiation of session, adolescents' knowledge was determined through a structured questionnaire. Total score of questionnaire was ten. In pre-test individual scores were between the ranges of 1-8, however in Post-test the individual score were between ranges of 2-8. Data was entered in SPSS version 19 and means of Pre and Post-test were compared. Pre-test mean was 4.12 and standard deviation 1.339, while Post-test means was 5.43 and

standard deviation was 1.523. Adolescent scores improved from 4.12 in Pre-test to 5.43 in Post-test.

DISCUSSION

The analysis of the data revealed very interesting findings. Around half of the adolescents were not aware that they are in pubertal age group. Moreover, three fourth of the adolescents reported that they felt shame and hypersensitive over the physical changes they experience in pubertal age group. Interestingly, none of the adolescents reported that they talk about these changes with their teachers however, it shows the cultural and social values of the eastern world where the people feel shame and disregard to talk about pubertal or sexual changes in the body. In addition, 93.33% adolescents reported that they feel much comfortable to talk about pubertal changes with their peers and friends; however, they did not get correct and exact information from their peers because of the same age group. The results are comparable with another study from Pakistan, that the participants shows concerns and lack of availability of reliable information on pubertal changes, and they get information from peers⁵. Moreover, in another study from Pakistan revealed lack of knowledge regarding puberty among female Pakistan; internet and cable were cited source of information regarding puberty¹⁰.

Around two third of the adolescents reported that they do not know about self-care during this age group; ultimately, it leads towards many physical, psychological, and social problems for the adolescents. In addition, the adolescents reported that the most convenient source of information was friend, teachers, and parents, none and siblings/friends. Similar were reported that convenient source of information for adolescent is peer, pamphlet, magazine and traditional healers⁵ and most of the female were unaware about basics life skills for female¹⁰.

The findings of the need assessment survey clearly indicate lack of knowledge about pubertal physical changes among the boys and lack of self-care among them. It also showed that adolescents experienced stress during this age group, which affects their learning and other work related activities. Research study showed that low quality of information regarding puberty increase stress level among adolescents¹¹. On the basis of survey findings, an educational session and group activities planned for the boys at the school.

In conclusion adolescent boys have many misconceptions about puberty, which may lead to poor physical and mental health. Mostly they rely on peers and internet for information regarding puberty. These faulty sources of information result in poor adjustment to new role as adolescent boys. The following recom-

mendations are important to address the issue in the larger context in Pakistan; pubertal changes and self-care should be included as a module / formal course in adolescents' curriculum at primary, secondary school level and teachers' training should be done to deal with adolescent issues. Awareness should be disseminated among the public (parents) regarding the importance of the issue through electronic and print media within cultural boundaries. There should be awareness programs for adolescents at primary health care level. This needs adequate capacity building of Lady Health Visitors (LHV), nurses and midwives working at primary level. Hence, Non-Governmental Organizations (NGOs) that possess capacity in this area should network at primary level and produce master trainers to effectively deal with this issue at community level. Current researches highlight the situational analysis of adolescent problems in Pakistan; however, there are gaps in strategies and problem resolution. There is a need to fill this gap through adequate researches and evidenced based papers.

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