



SCREENING OF BEHAVIORAL PROBLEMS AMONG HIGH SCHOOL CHILDREN OF HYDERABAD USING THE STRENGTHS AND DIFFICULTIES QUESTIONNAIRE REPORTED BY PARENTS.

Community Medicine

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ABSTRACT

Background: The understanding of behavioral problems among children is an important public health problem affecting children's development, academic achievement, and ability to live a productive life which is influenced by parent-child relationship.

Objectives: To screen behavioural problems among high school children using strengths and difficulties questionnaire (SDQ)

Material and Methods: A cross sectional study was conducted among 384 parents who had submitted their reports using SDQ version. This consists of five sub scales addressing emotional symptoms, conduct problem, hyperactivity, peer problem and prosocial behavior.

Results: Peer relationship problem and conduct problem were the highest of the subscales of SDQ. There was a significant association between conduct problems, total difficulties and gender. Prosocial behavior with high risk was found among only 12%. Impact supplement has found to be having affected to a great deal of 21% interference with friendship.

Conclusions : This study highlights the importance of peer relationship and conduct problems especially during this pandemic having affected their overall growth and development which needs to be addressed at the earliest.

KEYWORDS

Strengths and difficulties questionnaire, behavioral problems, Impact supplement, peer problems, prosocial behavior

INTRODUCTION

A healthy child contributes to a healthy and prosperous community. A child needs to pass through phases of physical, mental, and social development till they achieve their adulthood which are significant for their healthy growth. Any interference in mental or emotional development can cause behavioral disorders in a child.¹

Parent-child relationships have to reorganize responsibilities and move towards a more egalitarian relationship. Most of the parents are not sensitive to notice these subtle forms of behavioral problems unless it becomes severe and disabling. Early identification promotes early recovery and pushes the developmental trajectories into a healthier and adaptive path.

The behavioral problems can be explained by two ways: internalizing and externalizing. The internalizing problems include emotional, peer problem, depression and anxiety while conduct, hyperactivity and antisocial problems are some of the externalizing problems faced by adolescents.^{2,3}

These problems linked to various negative outcome in future like poor academic achievement, school dropout, loneliness, depression, suicidal thought, victimization and violence.

The prevalence of these problems varies widely in our country from 12%- 84%.⁴ This could be due to cross cultural variations in rating that is existing in various settings. The cost effective screening tool -Strengths and difficulties questionnaire(SDQ) is a brief behavioural screening questionnaire to identify the potential needs of students and later used as intervention plan for students and their families. The same set of questions are addressed to students, parents and teachers.⁸ So this study was taken up with an objective to screen behavioural disorders among high school children using SDQ and to assess their association with selected sociodemographic variables.

MATERIAL AND METHODS:

A Cross sectional study was conducted at Schools attached to the Government. Total number of government schools are 181 with total number of students were 44784; Using Krejcie Morgan table sample size was taken as 384. Using simple random sampling we have taken 20 students approximately from 20 schools through lottery method. Prior permission from all school in charges and Institutional ethical

committee clearance was obtained Parents of students from 7th class to 10th Class studying in respective schools were intimated on phone about the importance of the study and were called upon to school at a desired time of working hours.. This was conducted in the form of meeting with the help of teachers and the management. Informed consent was obtained from the parents and the translated local language questionnaires were used for self-reporting.

Standardized questionnaire used was Strengths and Difficulties Questionnaire (SDQ) exists in several versions to meet the needs of researchers, clinicians and educationalists. Consists of 25 questions having 5 on emotional symptoms , 5 on conduct problems , 5 on hyperactivity , 5 on peer relationship problems and 5 on pro social behavior. Each item are scored as not true=0, somewhat true=1 and certainly true=2. Each psychological attribute is scored on a 0-10 scale. A score of 0 is the best outcome concerning the emotional, conduct, hyperactivity, and peer relationship fields (note that these four attributes add up to a total difficulties/overall stress score scored on a 0-40 scale). This scoring reverses for pro-social/score for kind and helpful behavior, where a score of 10 shows the least amount of difficulty. (Annexure 1) The reliability analysis have been calculated during pilot testing and found to have Cronbach's alpha value of 0.657 on translation and backtranslation of the questionnaire.

Individual SDQ impact items is also obtained on difficulties upset or distress, interfere with home life, friendship, classroom teaching and leisure activities. This was graded from 0-3 with 0=Not at all, 1= A little, 2= A medium amount, 3= A great deal.

Data analysis: Data was entered in Microsoft excel 2018 and analyzed. Descriptive statistics such as frequency, percentages , mean and standard deviations was calculated. One way analysis of variance was used for establishing an association between various domains and sociodemographic variables.

RESULTS:

Our study included 384 parents of students studying from seventh to tenth class. This was constituted by males 139(36.2%) and 245(63.8%) females. Hindus were 312(81.3%), Christians 41(10.7%) and Muslims were 31(8.1%). As per their monthly income we found those earning less than Rs.15,000 per month among 193(24.2%) , Rs.15,000-30,000/month among 230(59.9%) and greater than Rs.30,000/month

among 61(15.9%) . Joint family type was practiced among 349(90.9%) and nuclear family in 35(9.1%).

Table 1 depicts the frequency of various subscales as per their parents report. This has found to represent higher peer problems being reported by parents among 327(85.1%) and total difficulties score among 206(53.6%).

Table 1: Frequency of various subscales of SDQ reported by parents

Subscales	Unlikely problem	Clinically significant	Substantial risk of clinically significant problems in this area
Emotional	0-3 score =184(47.9)	4-7score =71(18.5)	5-10=129(33.6)
Conduct	0-2score =104(27.3)	3 score =77(20.2)	4-10 score=203(52.5)
Hyperactivity	0-5score =245(63.8)	6 score =73(18.8)	7-10score=67(17.2)
Peer problems	0-2score =26(6.8)	3 score =31(8.1)	4-10 score= 327(85.1)
Total difficulties score	0-13 score =105(27.7)	14-16score =73(19.3)	17-40score=206(53.6)

Prosocial behavior with score of 6-10(Unlikely problem) was noted with 288(74.8%) , score of 5 – slightly low risk with 50(13.1%) and 0-4 high risk with 46(12.1%).

Table 2 gives the association between gender, economic status , type of family and various subscales of SDQ where there was a significant association with higher conduct score and total difficulties score among males compared to females. Even though there were higher mean scores among children whose parents were earning low income per month, we could not find any statistical significance.

Table 2: Association between gender, economic status , type of family and various subscales of SDQ

Variables	Emotional score	Conduct score	Hyperactivity score	Peer problem score	Total difficulties score
Gender					
Males	3.748±2.136	4.028±1.929	5.079±1.922	5.369±1.584	18.24±4.851
Females	3.567±2.054	3.487±1.647	4.718±1.805	5.082±1.787	16.89±4.909
P value	0.414	0.004	0.067	0.117	0.011
Income per month					
<Rs.15,000	4.010±1.879	3.815±1.772	4.946±1.771	5.274±1.706	18.100±4.510
Rs.15,000- Rs.30,000	3.630±2.105	3.657±1.765	4.908±1.895	5.139±1.789	17.374±4.992
>Rs. 30,000	3.065±2.197	3.590±1.820	4.415±1.803	5.220±1.476	16.360±5.140
P value	0.22	0.697	0.227	0.799	0.103
Type of family					
Joint	3.670±2.063	3.679±3.742	4.853±1.856	5.224±1.708	17.463±4.909
Nuclear	3.257±2.279	3.742±1.686	4.800±1.859	4.800±1.811	16.600±5.077
P value	0.264	0.697	0.227	0.799	0.103

Over all opinion about difficulties was noted among 236(61.4%) parents about their children. Effect of Impact supplement score on difficulties upset or distress child, interfere with home life, friendship, classroom teaching, leisure activities and burden on family is detailed in table 3.

Table3: Distribution of Individual SDQ Impact items based on parents report

Impact items	Not at all	A little	Medium amount	A great deal
Difficulties upset or distress child	183(47.7)	147(38.3)	46(12)	8(2.1)
Interfere with home life	184(47.9)	95(24.7)	88(22.9)	17(4.4)
Interfere with friendship	168(43.8)	65(16.9)	70(18.2)	81(21.1)
Interfere with classroom teaching	170(44.3)	88(22.9)	78(20.3)	48(12.5)
Interfere with leisure activities	179(46.6)	110(28.6)	66(17.2)	29(7.6)
Put burden on family	198(51.6)	134(34.9)	43(11.1)	9(2.4)

DISCUSSION

Our study included 384 parents constituted by 36.2% males and 63.8% females. Majority were Hindus 81.3% by religion and were earning group of Rs.15,000-Rs.30,000 in 230(59.9%) and 90.9% belonged to joint family. Based on SDQ assessment of mental health problems among adolescents , parents have reported higher risk of clinically significant problems in this area of peer relationship problems among 85.1% followed by conduct problems among 52.5%. Total difficulties score with clinically high risk was noted among 53.6% on sum of four scales. There was a statistically significant association between gender and Conduct score. And Total sum of all 4 subscales(total difficulties) was also significantly higher among males. Prosocial behavior score was found to be high among only 12%. Impact supplement assessment has proved an interference with friendship at a great deal of 21.1% in our study.

Norhafizah Sahril et al in Malaysia reported 42.5% of parents had reported some form of mental health problems among their children. With regard to the SDQ subscales, the prevalence of emotional problems among children were 15.3%; peer problems, 31.0%; conduct problems, 15.7%; and hyperactivity problems, 4.7%. A higher prevalence was noted among children whose parents had low income which was also similar in our study.⁹

Study by Camilo Ramos Cury and José Hércules Golfeto at Brazil among school children aged 6-11 years in the questionnaires answered by their parents obtained high scorings such as 30.8% for emotional symptoms, 17.7% for conduct disorders, 16.8% for hyperactivity, 14% for interpersonal relationships, 18.7% for the total scores and 10.2% for the impact supplement using SDQ.¹⁰

Similar to our study, Miranda George et al in their study in children of age group 3-14 years at Vidarbha found individual behavioral subset scores-21% was rated abnormal under emotional subset, 15% on conduct problems, 12% on hyperactivity, 41% under peer pressure, and 8% on prosocial behavior subset with more among male children.¹¹ Panchali Datta in their study among children of Kolkata found conduct problem as the most prevalent behavioral disorder among all the subscales of SDQ with 48.70% and 84.30% of children, respectively under parental cared group and out of parental care group. This was followed by peer problem (44.60% and 48.30%), emotional problem (33.70% and 55.60%), and hyperactivity problem (26.70% and 32.30%), respectively.¹²

Poornima Bhola et al in their study among pre university college students of Bangalore has noted Males having significantly higher levels of peer problems and lower levels of prosocial behavior. Education stream , Education level , presence of parental marital discord, financial difficulties and parental physical punishment were the predictors on their abnormal behavior.¹³

These variations in findings can be explained due to change in ethnicity, culture, parental factors, environment in which they are brought up, subjective interpretation and moreover due to ongoing COVID-19 pandemic they missed their schooling and lack of physical contact had increased their chance of higher prevalence in our set up.

CONCLUSIONS

SDQ was found to be a significant tool for preliminary screening of children to evaluate the Behavioral problems. There is a need to have targeted and preventive strategies to identify the conduct and peer relationship problems at the earliest in order to detect the high risk and help children to have overall development to improve the quality of life. Gender based differences could have been due to the influence of cultural and societal factors which needs further studies to be explored and conducted.

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