



CODEN [USA]: IAJPBB

ISSN: 2349-7750

INDO AMERICAN JOURNAL OF PHARMACEUTICAL SCIENCES

<http://doi.org/10.5281/zenodo.3457345>

Available online at: <http://www.iajps.com>

Research Article

TO GAUGE THE PREVALENCE OF MENTAL HEALTH RELATED ISSUES AMONG SCHOOL GOING CHILDREN: A CROSS-SECTIONAL RESEARCH

¹Zabitchan Naibzai, ²Dr Hafiza Sadaf Fiaz, ³Dr Amina Tariq

¹PIMS Islamabad, ²Woman Medical Officer at THQ Hospital, Hassan Abdal, ³RHC Chung
Lahore.

Article Received: July 2019

Accepted: August 2019

Published: September 2019

Abstract:

Background: Mental health issues reported among adolescents are less studied among areas where resources are scarce.

Objective: The objective of this research is to examine the mental health occurrences among adolescent and correlate the outcomes with the school-going children while comparing rural and urban differences.

Patients and Methods: This cross-sectional research was carried out at Jinnah Hospital, Lahore from September 2018 to May 2019 on children of (13 – 17) years of age. The total number of students was 693 which were studying from ninth to twelfth grade including both females and males. Mean health was evaluated through Strengths & Difficulties Questionnaire (SDQ); where, three categories were used for classification including normal, borderline and abnormal with respective score range of (0 – 15), (16 – 19) and (20 – 40). We also evaluated related psychosocial and medical factors. The research was commenced after securing clearance from ethics committee.

Results: The outcomes show that 15% of students presented higher score of SDQ. More emotional issues were reported among females; whereas, other mental issues were more prevalent among males. More mental health issues were reported among rural children than urban such as eye-related issues, failure rate, difficulties while studying at home and making relationship. Having friends and being physically fit was related to the normal score of SDQ. Logistic regression revealed that punishment, age and difficulty of discussing issues with parents and friends also increased the score of SDQ; whereas, after school entertainment, friends and watching TV reduced score of SDQ.

Conclusions: One out of eight adolescent was prone to mental health issues. The modalities and risk identification are possible through SDQ and TSQ approaches.

Keywords: School, Questionnaire, Strengths & Difficulties Questionnaire (SDQ), Adolescent, Physical, Homework and Punishment.

Corresponding author:

Zabitchan Naibzai,
PIMS Islamabad.

QR code



Please cite this article in press Zabitchan Naibzai et al., *To Gauge the Prevalence of Mental Health Related Issues among School Going Children: A Cross-Sectional Research.*, Indo Am. J. P. Sci, 2019; 06(09).

INTRODUCTION:

Children and adolescent are affected by mental health-related issues which are at an increase all over the world. Recently, A meta-analysis carried out on global level presented 13% prevalence of mental health-related issues among adolescents and children [1]. The frequency of child psychiatric disorder is reported 23% in schools and 7% in the community [2, 3]. Largest population countries with adolescents also report a large number of mental health-related issues which also affects the overall global proportion as well.

Adolescents remain away from home because of schooling and also spend a chunk of time in the schools; so, school teachers and staff can be helpful to cater the mental needs of the children at school. However, apropos, school staff is not that much trained to cater to the requirements. On the part of primary healthcare providers, they lack in patience and time which is required in the identification and management of mental disorders due to pre-occupied life. In this situation various available screening tools and different approaches are helpful to cater the situation. Mental health is not that many studies in our country due to scarcity of resources and concern. These conditions influence the development of adolescent to experience their gifted potentials. Mental health issues reported among adolescents are less studied among areas where resources are scarce. The objective of this research is to examine the mental health occurrences among adolescent and correlate the outcomes with the school-going children while comparing rural and urban differences.

MATERIALS AND METHODOLOGY:

This cross-sectional research was carried out at Jinnah Hospital, Lahore from September 2018 to May 2019 on children of (13 – 17) years of age. The total number of students was 693 which were studying from ninth to twelfth grade including both females and males. Mean health was evaluated through Strengths & Difficulties Questionnaire (SDQ); where, three categories were used for classification including normal, borderline and abnormal with respective score range of (0 – 15), (16 – 19) and (20 – 40). We also

evaluated related psychosocial and medical factors. The research was commenced after securing clearance from ethics committee. The rate of absenting from school was estimated five percent. Research tools assessed socio-demographic data, mental health status and related psychosocial and medical factors. Survey also screened students for their positive attitudes and mental health symptoms. Items of SDQ can measure both positive or negative behavioural attributes in different dimensions which include conduct problems, emotional symptoms, hyperactivity, pro-social behaviour and peer relationship issues. We did not include all those students who were participating in the validation part of the research.

We categorized primary outcome variables through SDQ score on the basis of previously used cut-off. Various factor occurrences were measured through univariate analysis and their association was also determined with SDQ. Statistical analysis was carried out by using SPSS software. SDQ variance was determined through gender, age, grade, eye problems, locality, nose issues, throat issues, dental problems, facial issues, hair issues, physical activity and failure related issues along with several other socio-demographic variables.

RESULTS:

Detailed outcomes of boys, girls, rural and urban participants have been assessed in the domains of emotional problems, conduct problems, hyperactivity, peer problems, pro-social behaviour and outcomes have also been tabulated. The outcomes show that 15% students presented higher score of SDQ. More emotional issues were reported among females; whereas, other mental issues were more prevalent among males. More mental health issues were reported among rural children than urban such as eye-related issues, failure rate, difficulties while studying at home and making relationship. Having friends and being physically fit was related to normal score of SDQ. Logistic regression revealed that punishment, age and difficulty of discussing issues with parents and friends also increased the score of SDQ; whereas, after school entertainment, friends and watching TV reduced score of SDQ.

Table – I: Distribution of Mental Health Issues (School going children)

Domain	Number	Normal		Borderline		Abnormal	
		No	%	No	%	No	%
Emotional problems	693	600	87	47	7	46	6
Conduct problems	692	576	83	58	8	58	9
Hyperactivity	692	651	94	23	3	18	3
Peer issues	693	500	72	140	20	53	8
Pro-social behavior	692	642	93	21	3	29	4
Total score of difficulties	691	588	85	64	9	39	6

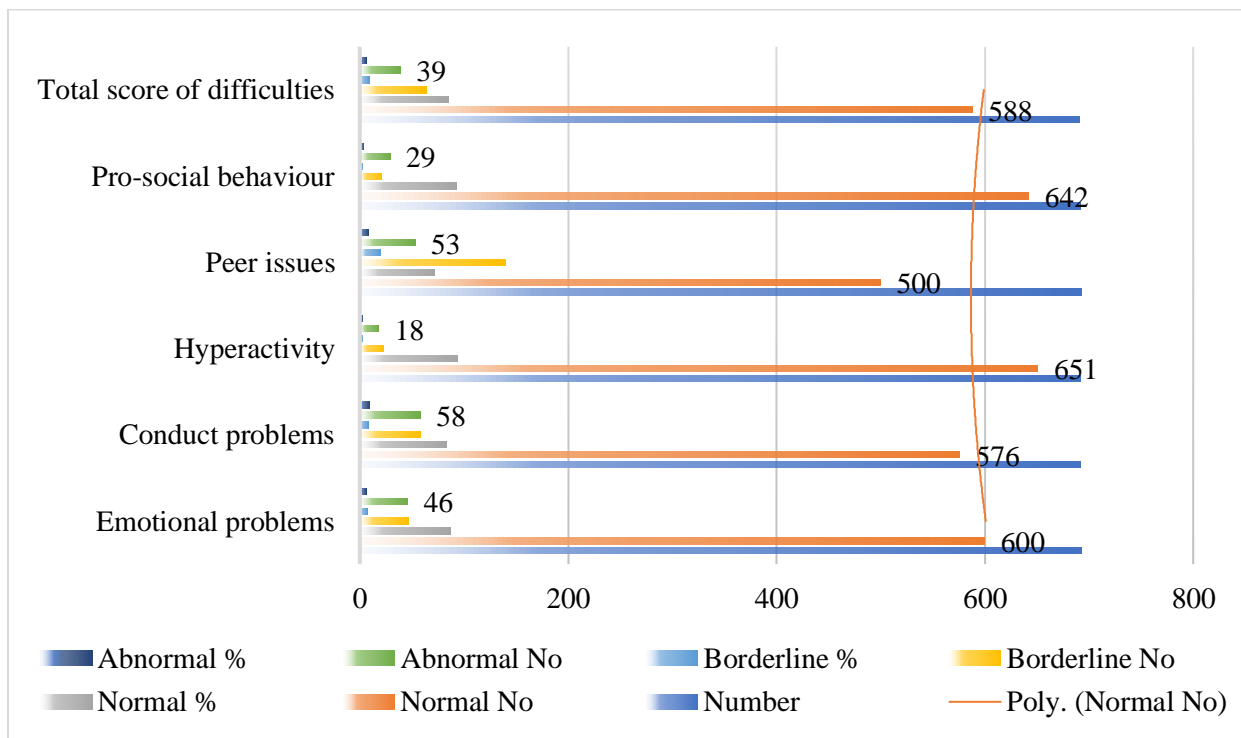


Table – II: Distribution of Mental Health Issues (Rural Versus Urban)

Domain		Rural		Urban		P-Value
		No	%	No	%	
Emotional Problems	Normal	227	86	373	87	0.7
	Borderline	15	6	32	7	
	Abnormal	22	8	24	6	
Conduct Problems	Normal	220	84	356	83	0.8
	Borderline	17	6	41	10	
	Abnormal	26	10	32	7	
Hyperactivity	Normal	245	93	406	95	0.3
	Borderline	10	4	13	3	
	Abnormal	9	3	9	2	
Peer Problems	Normal	197	75	303	71	0.3
	Borderline	51	19	89	21	
	Abnormal	16	6	37	8	
Pro-social Behavior	Normal	237	90	405	94	0.048
	Borderline	9	3	12	3	
	Abnormal	17	7	12	3	
Total Difficulties Score	Normal	220	84	368	86	0.4
	Borderline	26	10	38	9	
	Abnormal	17	16	22	5	

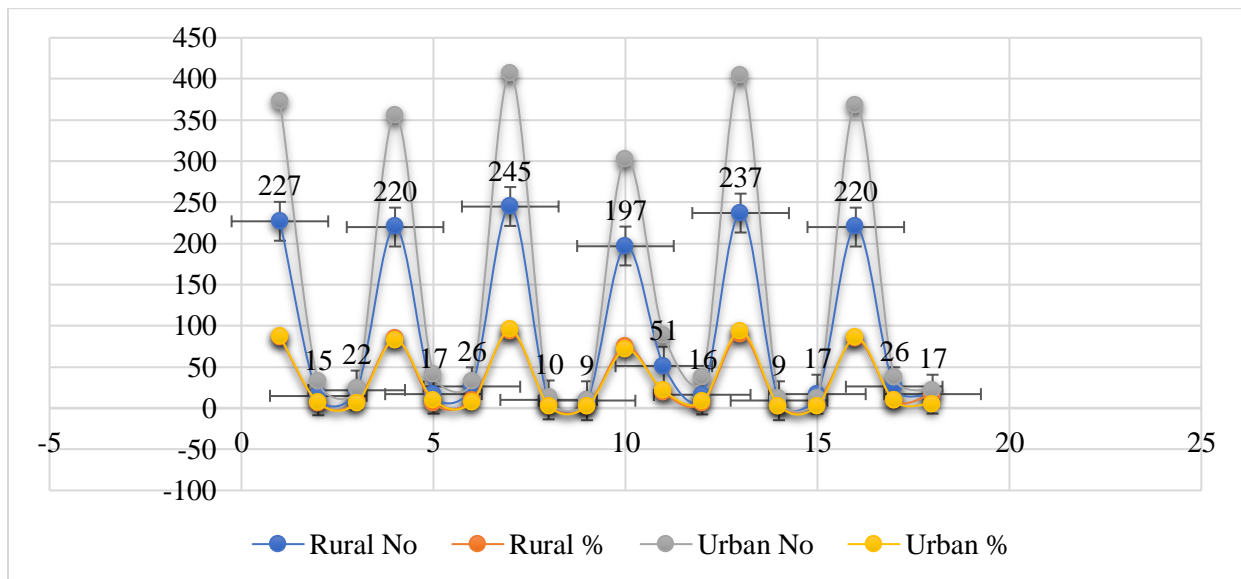


Table – III: Distribution of Mental Health Issues (Boys Versus Girls)

Domain		Boys		Girls		P-Value
		No	%	No	%	
Emotional Problems	Normal	327	92	273	81	<0.001
	Borderline	16	5	31	9	
	Abnormal	13	3	33	10	
Conduct Problems	Normal	284	80	292	87	0.025
	Borderline	30	8	28	8	
	Abnormal	41	12	17	5	
Hyperactivity	Normal	326	92	325	96	0.015
	Borderline	17	5	6	3	
	Abnormal	12	3	6	3	
Peer Problems	Normal	239	67	261	77	0.003
	Borderline	83	23	57	17	
	Abnormal	34	10	19	6	
Pro-social Behavior	Normal	319	90	323	96	0.001
	Borderline	15	4	6	2	
	Abnormal	22	6	7	2	
Total Difficulties Score	Normal	295	83	293	87	0.2
	Borderline	32	9	32	9	
	Abnormal	27	8	12	4	

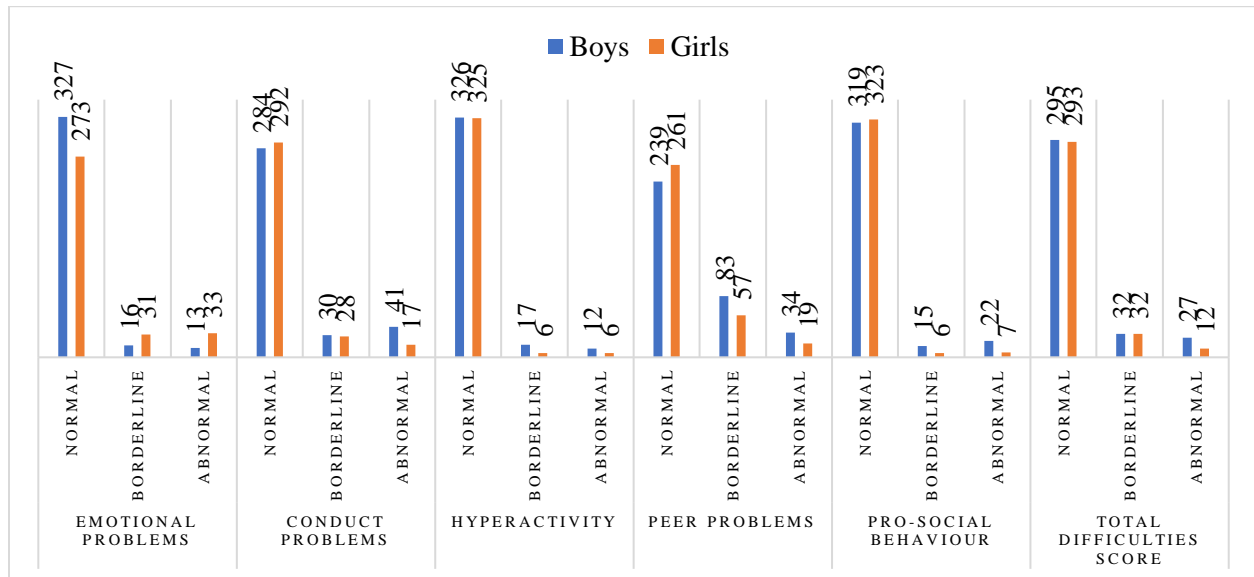


Table – IV: Distribution of Mental Health Issues (Urban, Rural, Male and Female)

Domain		Boys			Girls		
		Rural	Urban	P-Value	Rural	Urban	P-Value
Emotional Problems	Normal	120	207	0.5	107	166	0.5
	Borderline	8	8		7	24	
	Abnormal	3	10		19	14	
Conduct Problems	Normal	105	179	0.4	115	177	0.5
	Borderline	8	22		9	19	
	Abnormal	17	24		9	8	
Hyperactivity	Normal	115	211	0.029	130	295	0.4
	Borderline	9	8		1	5	
	Abnormal	7	5		2	4	
Peer Problems	Normal	85	154	0.3	112	149	0.017
	Borderline	35	48		16	41	
	Abnormal	11	23		5	14	
Pro-social Behavior	Normal	114	205	0.2	123	200	0.039
	Borderline	6	9		3	3	
	Abnormal	11	11		6	1	
Total Difficulties Score	Normal	109	186	0.5	11	182	0.1
	Borderline	9	23		17	15	
	Abnormal	12	15		5	7	

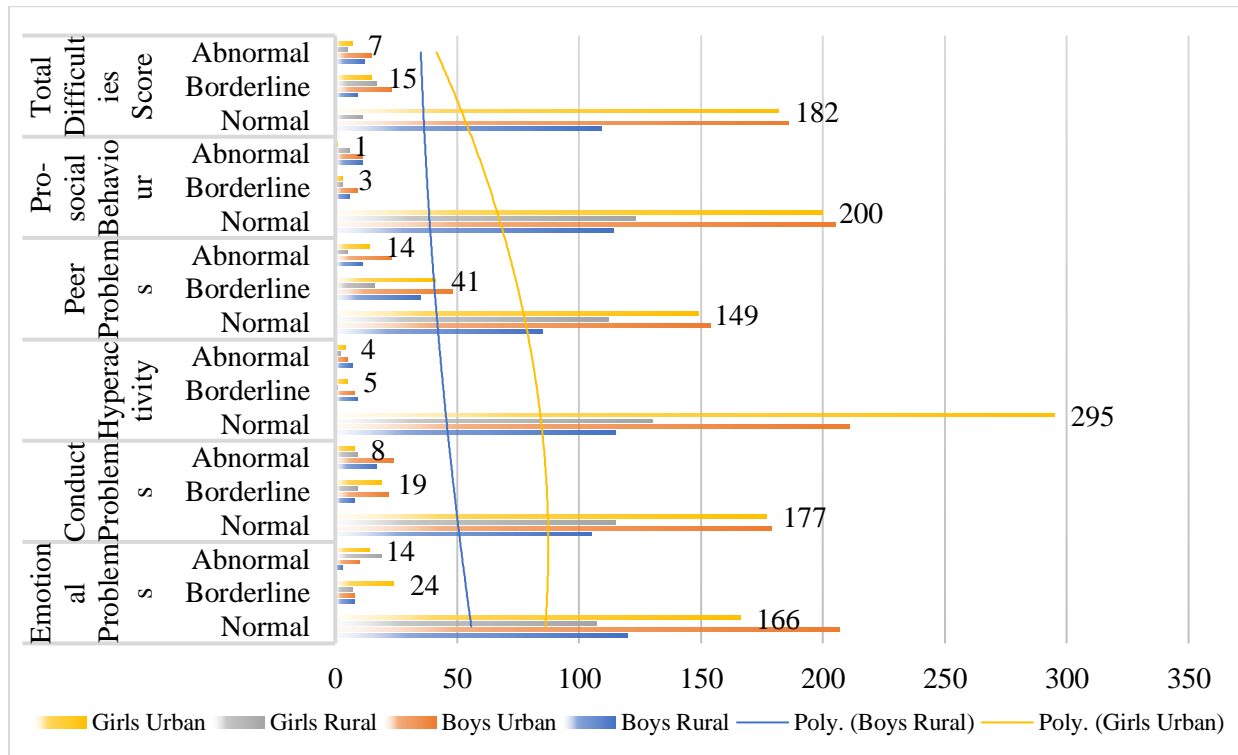


Table – V: Statistical analysis

Variable	Features	SDQ Total		P-Value	Adjusted Odds	95% CI	P-Value
		Normal (0-15)	High (16-40)				
Age	Mean	14.71	14.9	0.06	1.731	1.180 - 2.539	0.005
Eye Problems	Yes	93	28	0.005	2.249	1.307 - 3.867	0.003
	No	495	75				
Punishment for not completing homework	Physical	136	28	0.381	1.955	1.038 - 3.68	0.038
	More homework	451	75				
Physical Fitness	Yes	362	49	0.007			
	No	224	54				
Last annual exams performance	< 35%	53	16	0.006			
	40% - 50%	59	16				
	50% - 60%	146	34				
	60% - 70%	179	18				
	70% - 80%	69	11				
	> 80%	82	8				
Failed in a subject in the annual exams	Yes	51	19	0.002			
	No	537	84				
Difficult to study at home	Yes	62	26	<0.001			
	No	525	76				
Having friends	Yes	559	88	<0.001	0.385	0.182 - 0.812	0.012
	No	28	15				
Difficulties discussing with parents	Yes	53	30	<0.001	3.552	1.935 - 6.520	0.001
	No	535	73				
After school entertainment	Games	213	27	0.002	3.042	1.309 - 7.092	0.01
	Movies	29	13				
	Outing	87	15				
	TV	151	19				
	Others	108	29				
Difficulties in maintaining relationship	Yes	34	16	<0.001			
	No	554	87				

DISCUSSION:

The outcomes show that 15% of students presented higher score of SDQ. Different percentages have also been reported in the previously conducted research studies which range from (10% to 17%) [9]. We reported 28% peer problem, 13% emotional issues and 8% conduct related issues which are in agreement with previous studies [10]. Bullying caused (40% – 70%) issues in the rural population [11]. Social activities were more prevalent among rural children.

Girls presented higher emotional disturbances such as depression among both rural and urban centres which is also in agreement with other references [9, 12 – 15]. Boys were commonly reported for conduct disorders, hyperactivity and peer problems. Aggression is common among boys due to externalization [12, 16]. Increasing age caused issues while studying at home and children score less than 50% in the previous annual exams or even failed, faced eye-related issues, found difficulties to discuss with parents and friends, were punished for not doing homework and also faced

peer-related issues which attributed in mental health disorders.

Students with reduced visual acuity also show compromised performance in academics which may also result in drop out [17, 18]. Similarly, cultural and family setting also affects the academic performance of children [18]. An unhappy family may result into difficulties while studying at home including other reasons such as sibling fights, broken homes, parental fights, lack of parental support, parental marital discords and beating at home [18 – 22]. Parent imposed restrictions also attributed in the discussion of friends at home and resulted in higher SDQ scores [23]. Emotional stress was attributed to bullying in school. Mental health was directly affected by physical health and contributing factors include physical fitness, after-school entertainment (watching TV, watching movies and attending friends). Depression is also reduced through co-curricular activities [24]. Physical activity improves self-esteem and reduces depression [25, 26]. Physical activity improves various other faculties of the child such as problem-solving skills which reduces the mental health-related symptoms [27].

Mental health is next upcoming worldwide issue with grave consequences for underdeveloped regions and countries like ours because of non-availability of healthcare infrastructure and resources. Further complications may also lead to cultural mental illness. The issue can be expertly handled through identification of associated stigmas, increasing awareness, training the teachers and designing curriculum which can counter health-related issues. Novel screening tools are also good to take benefit. Various tools are available without any cost on internet which can be consulted by teachers to arrest mental health issues [28].

CONCLUSION:

Our region is highly affected by mental health issues. Rural students were more prone to mental health issues; whereas, emotional issues were common among girls and conduct related issues were common among boys. One out of eight adolescent was prone to mental health issues. The modalities and risk identification are possible through SDQ and TSQ approaches.

REFERENCES:

1. Bansal V, Goyal S, Srivastava K. Study of the prevalence of depression in adolescent students of a public school. *Ind Psychiatry J* 2009; 18:43.

2. D K, Bose SC. Factors influencing school performance among adolescents in urban and rural areas of Puducherry. *International J Recent Sci Res* 2012; 3:953–6.
3. Chauhan S, Lal P, Nayak H. Prevalence of depression among schoolchildren aged 15 years and above in a public school in Noida. *J Acad Industrial Res* 2014; 3:269.
4. Biddle SJ, Asare M. Physical activity and mental health in children and adolescents: a review of reviews. *Br J Sports Med* 2011; 45:886–95.
5. Nieman P. Psychosocial aspects of physical activity. *Paediatr Child Health* 2002; 7:309–12.
6. Soltanian AR, Nabipour I, Akhondzadeh S, et al. Association between physical activity and mental health among high-school adolescents in Bushehr province: a population-based study. *Iran J Psychiatry* 2011; 6:112–6.
7. Lundh LG, Wångby-Lundh M, Bjärehed J. Self-reported emotional and behavioural problems in Swedish 14 to 15-year-old adolescents: a study with the self-report version of the strengths and difficulties questionnaire. *Scand J Psychol* 2008; 49:523–32.
8. Muzammil K, Kishore S, Semwal J. Prevalence of psychosocial problems among adolescents in district Dehradun, Uttarakhand. *Indian J Public Health* 2009;53:18–21.
9. Kumar P, Ranjan A, Santosh KN, et al. Assessment of mental health among adolescents studying in government schools of Patna District. *Indian J Comm Fam Med* 2015.
10. Bhola P, Sathyanarayanan V, Rekha DP, et al. Assessment of self-reported emotional and behavioural difficulties among pre-university college students in Bangalore, India. *Indian J Community Med* 2016; 41:146–50.
11. Kumar M, Fonagy P. The cross-cultural sensitivity of the Strengths and Difficulties Questionnaire (SDQ): a comparative analysis of Gujarati and British children. *Int Psych* 2013; 10:42–4.
12. Patel HA, Varma J, Shah S, et al. Profile of Bullies and Victims Among Urban School - going Adolescent in Gujarat. *Indian Pediatr* 2017.
13. Van Roy B, Grøholt B, Heyerdahl S, et al. Self-reported strengths and difficulties in a large Norwegian population 10-19 years: age and gender-specific results of the extended SDQ-questionnaire. *Eur Child Adolesc Psychiatry* 2006; 15:189–98.
14. Pathak R, Sharma RC, Parvan UC, et al. Behavioural and emotional problems in school-going adolescents. *Australas Med J* 2011; 4:15–21.

15. Grealley P, Kelleher I, Murphy J, et al. Assessment of the mental health of Irish adolescents in the community. *RCSI Student Med J*2010; 3:33–5.
16. Sadock BJ, Sadock VA, Kaplan RP. *Sadock's Synopsis of Psychiatry: Behavioral Sciences/Clinical Psychiatry*. 11th ed. Philadelphia: Wolters Kluwer, 2015.
17. Liu J. Childhood externalizing behaviour: theory and implications. *J Child Adolesc Psychiatr Nurs* 2004; 17:93–103.
18. Lucky KE, Od U, Tochi IF, et al. Effects of reduced visual acuity on academic performance among secondary school students in South-South Nigeria. *Int Journal Sci Res* 2014; 3:328–34.
19. Shashidhar S, Rao C, Hegde R. Factors affecting scholastic performances of adolescents. *Indian J Pediatr* 2009; 76:495–9.
20. Srinivas P, Venkatkrishnan S. Factors affecting scholastic performance in school children. *IOSR Journal of Dental and Medical Sciences* 2016; 15:47–53.
21. Nair MK, Paul MK, Padmamohan J. Scholastic performance of adolescents. *Indian J Pediatr* 2003; 70:629–31.
22. Babalis T, Tsoli K, Nikolopoulos V, et al. The Effect of divorce on school performance and behaviour in preschool children in Greece: an empirical study of teachers' views. *Psychology* 2014; 05:20–6.
23. Polanczyk GV, Salum GA, Sugaya LS, et al. Annual research review: a meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *J Child Psychol Psychiatry*2015; 56:345–65.
24. Malhotra S, Patra BN. Prevalence of child and adolescent psychiatric disorders in India: a systematic review and metanalysis. *Child Adolesc Psychiatry Ment Health* 2014;8:22.
25. Murthy RS. National mental health survey of India 2015–2016. *Indian J Psychiatry* 2017; 59:21–6.
26. Goodman R. The strengths and difficulties questionnaire: a research note. *J Child Psychol Psychiatry* 1997; 38:581–6.
27. Nair MK. Adolescent attitude. *TEENS-J Teenage Care Premarital Counselling* 2003; 3:85–93.
28. Seenivasan P, Kumar CP. A comparison of mental health of urban Indian adolescents among working and non-working mothers. *Annals Comm Health* 2014;2:39–43.