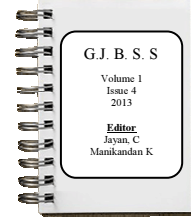




Guru Journal of Behavioral and Social Sciences

Volume 1 Issue 4 (Oct – Dec, 2013)

ISSN: 2320-9038 www.gjbss.org



Prevalence of Behavior Problems among School Children and their Demographic Correlates

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Abstract

Received: 30 Aug 2013

Revised: 18 Oct 2013

Accepted: 22 Oct 2013

Keywords:

Challenging Behaviors,
Externalizing, Internalizing,
Domain Analysis.

This cross sectional exploratory random survey of 1125 middle-high school urban children seeks to estimate the nature, content, type, frequency, intensity and extensity of their behavior problems in relation to socio-demographic variables. A 30-item self reporting instrument involving 3-point response format show parent occupation and paternal education influence problem behavior. A majority fall under 'mild' (N: 374; 33.24 %) and/or 'moderate' (N: 47; 4.18 %) levels of behavior problems. These trends are shared across certain child characteristics ($p > 0.05$). A dichotomized domain-item analysis show greater 'internalizing' than 'externalizing' problem behaviors. Results have implication for school mental health programs in the country.

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A distinction is often made (WHO, 2013) between behavior problems of non-clinical nature from those which is part of full-fledged clinical diagnostic conditions like Opposition Defiant Disorder, Attention Deficit Hyperactivity Disorder, Conduct Disorder, etc. The etiology of behavior problems vary enormously. Environmental or familial factors are primarily implicated although certain behavioral outcomes maybe due to biological and genetic reasons (Lee, 2004; Anthony et al. 2005). A developmental, socio-economic and cultural perspective is vital for identification or definition of behavioral abnormalities in children (Sroufe & Rutter, 1984; Venkatesan, 2010). Bed-wetting, avoidance of strangers or fear of darkness, for example, in a particular age is typical and beyond a developmental stage, they are viewed as problem behavior. More than being a passing age related phenomenon, persisting behavior problems are shown to have long term negative outcome for affected children, their family and society. Early childhood behavior problems appear to induce impulsive behaviors, predispose their securing low IQ test scores, school failure, academic problems, substance abuse, delinquency and/or abnormal behaviors even in their adulthood (Champion, Goodal, & Rutter, 1995; Andrew, 2005).

Moderate to severe degrees of subclinical or clinical levels of problem behaviors ranging between 2-40 percent have been reported across ages, gender, locations, family, socioeconomic status and/or nations in preschool to high school children (Gupta, Verma, Singh, & Gupta, 2001; Snider et al. 2002; Syed, Hussain, & Haldry, 2009; Gearing et al. 2013; Xiquan, Yao, & Zhao, 2013). Studies have used field surveys, referrals from psychiatric department, standardized screening instruments and/or parent interview techniques to report wide range or types of behavior problems like sleep disturbances, unsocial or socialized aggression-regression reactions, poor school grades and others (Anita, Vohra, Singh & Gupta, 2001; Ahmed, Khalique, Khan, & Amir, 2007). Further, problem behavior research has focused on home environment, sociological aspects, knowledge among teachers, single-dual parent families, children with special needs or about parent perception on its causes and management, discipline practices and others (Bhanwara, 2011; Ganesha & Venkatesan, 2012).



Admittedly, problem behaviors in children pose a serious challenge for parents, teachers and caregivers. Their early identification and remediation is a matter of perennial concern. Given this fluid field, one cannot expect that all its related questions have been answered. Their specifics in terms of incidence, prevalence, age or gender specificity, cultural contexts and/or actual content or types of manifestations keep varying. There is continual need to profile the contemporary picture of problem behaviors in children periodically. Hence, it was the chosen aim of this study to undertake a cross sectional random survey of middle-high school children in a major city of south India to estimate the nature, content, type, frequency, intensity and extensity of their behavior problems in relation to associated personal and socio-demographic variables. A subsidiary aim was also to establish the reliability and validity of the instrument being used for measurement of problem behavior targeted on typical children in this study.

Method

This study uses a cross a cross sectional random survey design with an embedded ingredient of tool validation. The key variable targeted in this investigation is: 'problem behavior'.

Participants

The participants of this study consists of 1125 students studying between 4-9 classes was drawn from regular or mainstream schools by including boys (N=636; 56.53%) and girls (N=489; 43.46 %). The chosen schools were private, government as well as government aided having English or the vernacular (Kannada) as medium of instruction and affiliated to the State/Central Boards of School Education.

Instruments

This study made use of two tools, demographic data sheet and another behavior assessment device to measure problem behaviors. The first instrument was exclusively prepared for this study to elicit personal and background details of respondents.

Depending upon the stated purpose and with an acceptable measure of congruence between respondents, problem behavior assessment in children is carried out by using several procedures, protocols or techniques, such as, parent reports or interviews, standardized behavioral observations of parent-child interactions, use of checklists, rating scales, parent/teacher ratings or estimation, etc. There are many standardized psychometrically valid and reliable tools (Venkatesan, 2013) to appraise, both, skill/positive as well as negative/problem behaviors in children (Table 1).



Table 1

Summary List of Problem Behavior Checklists & Rating Scales

SNos.	Title of Scale	Author/s & Year of Publication
1	Walker Problem Behavior Identification Checklist	Walker, 1983
2	Aberrant Behavior Checklist	Aman, Singh, Stewart & Field, 1985a; 1985b
3	Child Behavior Rating Form	Aman et al. 1996
4	Becker Behavior Rating Scale	Becker, 1960
5	Conduct Problem Scale	Patterson & Fagot, 1967
6	Behavior Disturbance Scale	Leudar, Fraser & Jeeves, 1987
7	Eyberg Child Behavior Inventory	Boggs, Eyberg & Reynolds, 1990
8	Behavior Rating Profile	Brown & Hammill, 1990
9	Revised Behavior Problem Checklist	Quay & Peterson, 1993
10	Checklist of Challenging Behavior	Harris, Humphreys & Thomson, 1994
11	Developmental Behavior Checklist	Einfeld & Tonge, 1995
12	Conner's Rating Scale	Connors, 1997
13	Child Behavior Checklist	Achenbach & Rescorla, 2000; 2001
14	Behavior Problems Inventory	Rojahn et al, 2001
15	Behavior Assessment System for Children	Reynolds & Kamphaus, 2004
16	Burks Behavior Rating Scale	Burks, 2007
17	Behavior Disorder Checklist	Mishra, 1976
18	Problem Behavior Checklist	Arya et al, 1990
19	Behavior Assessment Scale for Children with Mental Retardation, Part B	Peshawaria & Venkatesan, 1992a
20	Behavior Assessment Scale for Adult Living, Part B	Peshawaria et al, 2000
21	Problem Behavior Survey Schedule For Children with Developmental Disabilities	Venkatesan, 2013

SOURCE: Venkatesan, S. Preliminary try out and validation of problem behavior survey schedule for children with developmental disabilities. *Jl. Dis. Mgmt. Sp. Edn.* 2013; 3(2): 9-22.

Despite the many available options, procedures or formats for problem behavior assessments with their relative merits and demerits, a considered choice was made in this study to gather data on problem behaviors by individualized administration of 'Abaris Child and Adolescent Self Report Questionnaire' (ACASRQ, 2010). This choice rested mainly on the merits of brevity, simplicity, ease-of-use and quick screening that was possible on this tool as compared to the other reviewed problem behavior assessment tools which had focus on clinical populations. Moreover, since this study seeks to survey non-pathological behavioral issues in typical children, a positive health based rather than dysfunction based tool was preferred for this investigation.

The ACASRQ is a 30-item self/significant-other report freely downloadable questionnaire with statements to be answered as applicable for the respondent based on their experience during the past seven days. Illustrative examples of test items read as: '...argue or speak rudely to others ...', '...emotions are strong and change quickly ...', '...has physical fights hitting, biting or scratching ...', etc. The maximum raw score possible on this tool for an



individual is 60. Interpretative norms recommend scores ≤ 20 as 'normal'; scores 21-30 as 'mild'; scores 31-40 as 'moderate' and scores 40+ as 'severe' forms of behavior problems.

Procedure:

The ACASRQ was initially tried out on a pilot sample of 25 school children between 8-15 years after undertaking its reverse translation into the native tongue. This was followed by another 2-week test-retest reliability check on a sub-sample of children. In the pilot phase, missing answers and inconsistencies in responses were marked as 'high' on the original format of the questionnaire for items 4, 6, 8-10, 12-14, 20, 21, 23, 27-28, and 30 respectively. Based on the respondents comments that some statements were ambiguous, changes were carried out on those specific items by incorporating simple words without altering their meaning. The original 5-point Likert scale was reduced to 3-point response format covering 'Never or Almost Never' (Score 0), 'Sometimes' (Score 1) and 'Always' (Score 2). The item on 'use of alcohol' (#10) was dropped from the tool since its consumption was never reported and is also unseen in Indian children. The item numbers 19 and 20 were derived by splitting their original item which was reported as a dual question by many respondents during the pilot study. Since the tool provides scores for individual and groups of children, both, in terms of *frequency* and *severity*, it was deemed appropriate to analyze, present and discuss the results of this study along these two dimensions separately. Further, following the widely accepted empirical distinction of behavior disorders as 'externalizing' and 'internalizing', the derived scores on this tool were also categorized along these lines or domains of behavior problems.

Internalizing problem behaviors are inner directed maladaptive actions distressing to the person manifesting them. For example, head banging or biting oneself is inner directed self injurious internalizing behavior. Sometimes, internalizing behaviors are covert, disguised or not externally observable, such as, anxiety, fears, depression, eating, sleeping or psychosomatic disturbances. Externalizing problems are, by contrast, outer-directed maladaptive actions disturbing others more than the person showing that behavior. When a child turns violent or throws things, it poses danger and stress on others. Such behaviors are overt and easily discernable, such as, Attention Deficit and Hyperactivity, Conduct Disturbances, Substance Abuse, etc. Studies have shown that internalizing type of behavior disturbances are short lasting compared to long lasting effects on personality of the individual for externalizing behavioral disturbances (Campbell, Shaw & Gilliom, 2000; Liu, 2004).

Results and Discussion

The results are presented and discussed sequentially under the following distinct but inter connected headings, viz., frequency and severity scores, domain and item analysis and reliability-validity

Frequency Scores:

The frequency scores on ACASRQ obtained for overall sample of school children (N: 1125; Mean: 17.6; SD: 7.37) out of the maximum possible score of 60 is interpreted as falling in the so-called 'normal' range. This trend is similar across several child variables, such as, gender, age (8-11/12-15 years), socio-economic status (low/middle/high), type of family (Nuclear/Non-Nuclear) and/or school (Government/Non-Government) ($p > 0.05$). Parent characteristics, especially their occupation; and also, especially paternal education emerges as significant variable in influencing problem behavior scores in the school children ($p < 0.05$). There are higher problem behavior scores wherein fathers are reported as 'nil' occupation as also wherein they are 'post graduates' (N: 148; Mean: 18.7; SD: 7.91). Evidently, an 'unoccupied' father figure (N: 24; Mean: 21.7; SD: 9.27) in a typical Indian household appears to signal or facilitate more behavior problems in the growing children. However, the same trend is not true for the 'nil' occupied mother who may be still perceived as 'home maker' in many contemporary households across the country. By contrast, it is seen that the children of 'daily wager' mother show the least problem behavior score (N: 137; Mean: 15.7; SD: 6.37) (Table 2).

Table 2

Distribution of Problem Behavior Raw Scores in relation to various variables

Group	Variable	N	FREQUENCY SCORES		Probability	SEVERITY SCORES				Probability
			Mean	SD		Normal	Mild	Moderate	Severe	
	Overall	1125	17.6	7.37		702	374	47	2	
Sex	Boys	636	17.8	7.04	T: 0.9034; df: 1123; SE: 0.443; P: >0.05;	389	220	27	-	X ² : 1.2; df: 2; P: 0.0327
	Girls	489	17.4	7.76		313	154	20	2	
Age	8-11	522	17.8	7.58	T: 0.9093; df: 1123; SE: 0.440; P: >0.05;	326	166	28	2	X ² : 4.94; df: 2; P: 0.0846
	12-15	603	17.4	7.16		376	208	19	-	
Family	Nuclear	663	17.7	7.63	T: 1.2857; df: 1123; SE: 0.467; P: >0.05;	410	226			X ² : 3.15; df: 2; P: 0.207
	Non-Nuclear	462	17.1	7.80		294	158	10	-	
Father Education	Illiterate	20	17.0	10.2	F: 2.944; P: 0.020;	14	6	-	-	X ² : 8.51; df: 4; P: 0.0746
	School Level	237	17.6	8.16		145	80	10	2	
	Under Graduate	271	17.8	7.27		153	107	11	-	
	Graduate	449	16.5	7.04		300	141	8	-	
	Post Graduate	148	18.7	7.91		91	52	5	-	
Mother Education	Illiterate	98	16.7	6.89	F: 1.398; P: 0.233;	60	38	-	-	X ² : 9.5; df: 4; P: 0.0497
	School Level	231	18.3	6.93		137	87	5	2	
	Under Graduate	334	17.7	8.02		196	123	15	-	
	Graduate	387	17.1	6.82		265	112	10	-	
	Post Graduate	75	17.1	7.94		44	26	5	-	
Father Occupation	NIL	24	21.7	9.27	F: 2.874; P: 0.035;	12	12	-	-	X ² : 19.23; df: 3; P: 0.0002
	Daily Wager	150	17.2	6.28		116	34	-	-	
	Employed	634	17.8	7.73		374	236	22	2	
	Business	317	17.3	7.19		202	102	13	-	
Mother Occupation	NIL	346	17.4	7.77	F: 3.243; P: 0.021;	212	125	9	-	X ² : 15.3; df: 3; P: 0.0016;
	Daily Wager	137	15.7	6.37		106	31	-	-	
	Employed	538	17.9	7.41		320	193	23	2	
	Business	104	17.5	7.10		66	35	3	-	
Ses	Low	185	17.1	8.29	F: 1.657; P: 0.191;	110	61	14	-	X ² : 5.05; df: 4; P: 0.2822
	Middle	652	17.2	7.30		220	201	29	2	
	High	288	18.1	7.19		172	103	13	-	
School	Govt.	918	17.8	7.39	T: 1.7652; df: 1123; SE: 0.567; P: >0.05	566	315	35	2	X ² : 1.89; df: 2; P: 0.3887
	Non-Govt.	207	16.8	7.24		136	61	10	-	



Severity Scores

In terms of severity of problem behaviors (N: 702 out of 1125; 62.4 %) a majority of the children emerge as having 'normal' range of behavior problems. Out of the remaining, another sizeable segment (N: 423 out of 1125; 33.24 %) fall under the range of 'mild' (N: 374; 33.24 %) and/or 'moderate' (N: 47 out of 1125; 4.18 %) levels of behavior problems. The number of children with 'severe' problem behaviors is negligible (N: 2; 0.001 %) across all child characteristics ($p > 0.05$). As with the trend in the spread of frequency based problem behavior scores in relation to parent variable/s; so also, with regard to interpretative or severity based problem behavior scores, the results indicate almost identical and confirmatory outcomes. The twin variables of fathers' ($X^2: 19.23$; $df: 3$; $P: 0.0002$) and/or mothers' ($X^2: 15.3$; $df: 3$; $P: 0.0016$) occupation alone surface as statistically significant as against others. It is seen that most children of fathers without any reported occupation have behavior problems (Table 2).

Domain and Item Analysis:

Based on domain dichotomy, the 30-item ACASRQ got classified as 16 'internalizing' (I) and 14 'externalizing' (E) problem behaviors by two independent mutually blinded examiners whose inter-observer agreement was calculated as 98.24 %. For overall sample (N: 1125), the E-Score (Mean: 462; SD: 122; 41%) is significantly lower than the I-Score (Mean: 665; SD: 178.3; 59%) ($t: 31.516$; $df: \alpha$; $p: 0.001$)(Table 3).

Table 3

Item wise Distribution of Problem Behavior Raw/Frequency Scores on ACASR

Nos.	Domain	Item	Frequency Scores			Severity Scores			
			N	%	Rank	Normal	Mild	Moderate	Severe
1	I	Headache or feel dizzy	802	71.2	2	437	321	42	2
2	E	Don't participate in activities that used to be fun	632	56.1	13	379	227	25	1
3	E	Argue or speak rudely to others	632	56.1	13	415	189	27	1
4	I	Have a hard time finishing my assignments or do them carelessly	575	51.1	18	350	196	28	1
5	I	Emotions are strong and change quickly	788	70.0	3	503	257	27	1
6	E	Have physical fights (hitting, biting or scratching) with family or others of my age	516	45.8	19	331	166	18	1
7	I	Worry and cannot get thoughts out of my mind	741	65.8	7	444	259	37	1
8	E	Steal or tell lies	290	25.7	27	180	99	11	-
9	I	Have a hard time sitting still or I have too much energy	776	68.9	6	480	261	34	1
10	I	Am tense and easily startled (jumpy)*	777	69.0	5	480	265	30	2
11	I	Am sad or unhappy	916	81.4	1	575	303	37	1
12	E	Have a hard time trusting family members or other adults	438	38.9	22	282	144	11	1
13	E	Think that others are trying to hurt me even though they are not	499	44.3	21	310	172	17	-
14	E	Have threatened to or have run away from home	263	23.3	29	172	79	12	-
15	E	Physically fight with others	410	36.4	23	253	140	16	2
16	I	Stomach hurts or feel sick more than others of my age	590	52.4	16	368	199	23	-
17	E	Don't have friends or don't keep friends for very long	395	35.2	25	249	128	18	-
18	I	Think about suicide or feel would be better off dead	276	24.5	28	169	97	10	-
19	I	Have nightmares*	694	61.6	8	426	241	26	1
20	I	Have trouble getting sleep, oversleeping or waking too early*	667	59.2	11	409	222	35	1
21	E	Complain about or question rules, expectations or responsibilities	512	45.5	20	327	163	22	-
22	E	Break rules, laws or don't meet others expectations on purpose	402	35.7	24	254	129	19	-
23	I	Feel irritated	785	69.7	4	490	261	33	1
24	E	Get angry enough to threaten others	590	52.4	15	377	186	27	-
25	I	Get into trouble when bored	680	60.4	10	427	227	25	1
26	E	Destroy property on purpose	325	28.8	26	211	101	13	-
27	I	Have a hard time concentrating, thinking clearly or staying on a task	680	60.4	9	412	236	31	1
28	I	Withdraw from my family and friends	255	22.6	30	155	90	10	-
29	I	Act without thinking and don't worry about what will happen	640	56.8	12	390	220	29	1
30	E	Feel that I don't have any friends or that no one likes me	577	51.2	17	358	193	26	-
		Mean (X) and SD (σ) E-Score	X: 462	%: 41	σ: 122.0	X:353.77	X: 192.37	X: 23.97	X: 0.7
		Mean (X) and SD (σ) I-Score	X: 665	%: 59	σ: 178.3	σ: 110.93	σ: 65.71	σ: 8.98	σ: 0.65
					CV: 31.36	CV: 34.16	CV: 37.46	CV: 93.04	

*indicates items which have been re-worded or modified; CV is SD expressed as a percentage of mean;

An item-wise distribution of, both, frequency and severity scores on ACASRQ for overall sample (Table 3) show that 'feeling sad or unhappy' (Item #11I; N: 916/1125; 81.4%; Rank 1) is the most frequent complaint in this sample of school children. This is followed by reports on 'headaches or feeling dizzy' (Item #1I; N: 802/1125; 71.2%; Rank 2), 'emotions being strong and changing quickly' (Item #5I; N: 788/1125; 70.0%; Rank 3), 'feeling irritated' (Item #23I; N: 785/1125; 69.7%; Rank 4), or being 'tense and easily startled' (Item #10I; N: 777/1125; 69%; Rank 5) and so on. By contrast, the least reported items in their decreasing order and frequency of occurrence are 'destroys property on purpose' (Item #26E; N: 325/1125; 28.8%; Rank 26), 'steals or tells lies' (Item #8E; N: 290/1125; 25.7%; Rank 27), 'thinks about suicide or feels it would be better off dead' (Item #18I; N: 276/1125; 24.5%; Rank 28), 'threatens to run away from home' (Item #14E; N: 263/1125; 23.3%; Rank 29) and/or being 'withdrawn from my family or friends' (Item #28I; N: 255/1125; 22.6%; Rank 30).

The derived results for the item-order of reported problem behavior in terms of their severity shows that that majority of the children in this sample get classified as 'Normal' (Mean: 353.77; SD: 110.93; CV: 31.36), followed by less of them receiving categorization as 'Mild' (Mean: 192.37; SD: 65.71; CV: 34.16) and 'Moderate' (Mean: 23.97; SD: 8.98; CV: 37.46). The number of children recognizable as having 'Severe' problem behavior is negligible.

Reliability-Validity:

The modified ACASRQ as eventually administered on a randomized sub-sample of 587 children (52.18 %) of the original sample including 258 girls (40.57 %) and 329 boys (51.73%) after a period of nine months from the date of the earlier screening. The overall problem behavior mean score obtained for the subsample during the first screening was 14.2 out of 60 (N: 587; SD: 6.34) and for the second screening it was 15.6 out of 60 (N: 587; SD: 7.03) with Cronbachs α : 0.737 thereby indicating high internal reliability. The sensitivity, specificity and face validity of the ACASRQ as a seeing instrument is reported to be high.

In sum, the findings of this survey indicate that parent characteristics, especially their occupation and education are critical variables in influencing the nature, type or severity of their problem behaviors. In contrast, as commonly presumed, child characteristics like their age, gender or grade levels do not surface as significant variables. In a related study, more girls than boys and more rural over urban children were reported as having additional problem behaviors in samples of single parent as contrasting dual parent typical families (Ganesha & Venkatesan, 2012). Gender has been the most frequently implicated variable in childhood problem behaviors with boys having higher prevalence rates than girls (Bansal & Barman, 2012). Some studies have sought to estimate psychiatric morbidity in school children which evidently means that they fulfill official diagnostic criteria. Going by such estimates, social anxiety, panic, depression, non-organic sleep disturbances, breath holding spells, pica, dissociative conversion, intellectual disability and expressive speech delays were found to be as high as 12.5-30 % (Shakya, 2010). This study does not confirm such findings.

Further, domain analysis shows that school children have more 'internalizing' than 'externalizing' problem behaviors. In terms of severity, most of them fall under the category of 'mild' and/or 'moderate' levels rather than as children with 'severe' problem behaviors in school settings. More specifically, the children are reported high on 'feeling sad, unhappy or irritated', or as experiencing 'headaches or feeling dizzy', or that their 'emotions are strong and change quickly', or being 'tense and easily startled' and so on. Simultaneously, they score relatively low on items like 'destroying property on purpose', 'stealing or telling lies', 'thinking about suicide', wishing to 'run away from home' and/or



being 'withdrawn from my family or friends'. Further, an 'unoccupied' father figure in the typical Indian household appears to signal or facilitate more behavior problems in the growing school children. The greater number and severity of 'internalizing' than 'externalizing' variety of problem behaviors has implications for initiating primary prevention school mental health programs in the country.

Acknowledgements

The author seeks to place on record the gratitude and credits due to the respondents and Director, AIISH, Mysore, for the permission given to one of the co-authors to be part of this study. This work is part of the doctoral dissertation being undertaken by the first author under the guidance of the third author.

References

- ACASR (2010). Child & Adolescent Self-Report Questionnaire. Rochester Hills: Abaris Behavioral Health Retrieved from http://abarishealth.com/forms/Child_and_Adolescent_Questionnaire_set.pdf on 31-12-2012. 2012
- Ahmed, A., Khalique, N., Khan, Z., & Amir, A. (2007). Prevalence of psychosocial problems among school going male adolescents. *Indian Journal of Community Medicine*. 32(3), 219-221.
- Andrew, J. (2005). Problem behaviors and associated risk factors in young children. *Australian Journal of Guidance & Counseling*. 15, 1-16.
- Anthony, L. G., Anthony, B. J., Glanville, D. N., Naiman, D. Q., Waanders, C., & Shaffer, S. (2005). The relationships between parenting stress, parenting behavior and preschoolers' social competence and behavior problems in the classroom. *Infant and Child Development*, 14, 133-154.
- Bansal, P. D., & Barman, R. (2012). Psychopathology of school going children in the age group of 10-15 years. *International Journal of Applied Basic Medical Research*. 1, 43-47.
- Bhanwara, P. (2011). Knowledge among teachers related to behavior problems in school children. *Singhad e-Journal of Nursing*. 1(2), 21-23.
- Campbell, S. B., Shaw, D. S., & Gilliom, M. (2000). Early externalizing behavior problems: Toddlers and preschoolers at risk for later maladjustment. *Developmental Psychopathology*. 12 (3), 467-458.
- Champion, L. A., Goodal, G., & Rutter, M. (1995). Behavior problems in childhood and stressors in early adult life. I. A 20 year follow-up of London school children. *Psychological Medicine*. 29 (2), 231-246.
- Ganesh. & Venkatesan, S.. (2012). Comparative profiles of problem behaviors in children from single versus dual parent families. *Journal of Psychology*. 3(2), 89-98.
- Gearing, R. E., Mac Kenzie M. J., Schwalbe, C. S., Brewer, K. B., & Ibrahim, R. W. (2013). Prevalence of mental health and behavioral problems among adolescents in institutional care in Jordan. *Psychiatry Services*. 64, 2.
- Gupta, I., Verma, M., Singh, T., & Gupta, V. (2001). Prevalence of behavioral problems in school going children. *Indian Journal of Pediatrics*. 68(4), 323-6.
- Lee, S. H. (2004). Children's behavioral problems, inter-parental conflict and maternal psychological distress. *Journal of Medical Science*, 24(4), 185-190.
- Liu, J. (2004). Childhood externalizing behavior: Theory and implications. *Journal of Child Adolescent Psychiatric Nursing*. 17(3), 93-103.
- Peshawaria, R., & Venkatesan, S. (1992a). *Behavior assessment scale for children with mental retardation*. Secunderabad: National Institute for the Mentally Handicapped.
- Peshawaria, R., & Venkatesan, S. (1992b). *Behavioral approaches in teaching mentally handicapped children: A manual for teachers*. Secunderabad: National Institute for the Mentally Handicapped.



- Shakya, D. R. (2010). Psychiatric morbidity profiles of childhood and adolescent psychiatry out-patients in a tertiary care hospital. *Journal of Nepal Pediatric Society*. 30 (2), 79-84.
- Snider, L. A., Seligman, L. D., Ketchen, B. R., Levitt, S. J., Bates, L. R., Garvey, M. A., & Swedo, S. E. (2002). Tics and problem behaviors in school children: Prevalence, characterization, and associations. *Pediatrics*. 110(2), 331-336.
- Sroufe, L. A., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development*, 55(1), 17-29.
- Syed, E. U., Hussein, S. A., & Haldry, S. E. (2009). Prevalence of emotional and behavioral problems among primary school children in Karachi, Pakistan- multi informant survey. *Indian Journal of Pediatrics*. 78(6), 623-627.
- Venkatesan, S. (2004). *Children with developmental disabilities: A training guide for parents, teachers & caregivers*. New Delhi: Sage (India) Publications.
- Venkatesan, S. (2010). Cultural factors in clinical assessment: The Indian perspective. *Indian Journal of Clinical Psychology*, 37(1), 75-85.
- Venkatesan, S. (2013). Preliminary try out and validation of problem behavior survey schedule for children with developmental disabilities. *Journal of Disability Management and Special Education*. 3(2), 9-22.
- WHO (2013). The ICD-10-CM codes and criteria. Retrieved from <http://www.icd10data.com/Search.aspx?search=autism&codebook=AllCodes> on 21-08-2013.
- Xiquan, M., Yao, Y., & Zhao, X. (2013). Prevalence of behavioral problems and related family functioning among middle school students in an eastern city of China. *Asia-Pacific Psychiatry*. 5, 1, E1-E8.