

EVALUATING AND UNDERSTANDING THE LEVEL OF DEPRESSION AMONG CHILDREN BETWEEN 6 TO 15 YEARS IN RUNNING PEDIATRIC OPD. - A CROSS-SECTIONAL STUDY

Pediatrics

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ABSTRACT

AIM & OBJECTIVES- To find out the various dimensions of family environment and other social areas as predictor of depression among children.

MATERIALS & METHODS- Sample for the study includes 113 children from 6 years to 15 years (boys 49 & 64 Girls) with a history of behaviour difficulties, poor scholastic performance and other psychological problem more than 2 months. The sample was chosen randomly from the NKPSIMS & LMH Nagpur Maharashtra. The study was conducted between June 2018 to August 2019.

RESULT- On child behaviour check list (CBCL) psychological assessment diagnosed with depression problem boys mean $48.06 \pm SD 33.634$, girls mean $60.28 \pm SD 23.839$, t value -2.427 is statistically not significant. But both high mean indicate depressive problem. Prevalence of depression was 57.07%, boys prevalence 24.74%, and girls prevalence 32.32%.

CONCLUSION- With respect to the risk factors for depression, the present study has positively noted various academic difficulties, isolated, diminished interest in play activities, concentration difficulties, fear, relationship issues with parents or at home, family-related problem, social issues, anxiety and aggression, pessimism, decreased sleep, somatic symptoms and other multimedia addiction. Psychotherapy (supportive behaviour therapy, music therapy, Interpersonal psychotherapy and cognitive behavioural therapy) is a kind of mental health counselling that entails working with a trained therapist to figure out ways to solve problems and cope with depression.

KEYWORDS

Child Behavior Checklist, supportive behaviour therapy, music therapy, Interpersonal psychotherapy and cognitive behavioural therapy

INTRODUCTION-

It's normal for children feel sad when they did not done or fail in activity, or irritated, or to be in bad moods from time to time. But when negative feelings and thoughts linger for a long time like guilt and feel worthless and limit a children ability to function normally, it might be depression. In 1998 Birmaher study clinical depression affects 2% of young children and 6% of all adolescents each year [1]. Depression is a type of mood disorder, and depression is an illness that involves the body, mood, and thoughts and affects the way a person think, and communicate, the way one feels about oneself, and the way one thinks about things. Depressive disorders are characterized by pervasive mood changes that affect all aspects of an individual's daily functioning. Depression can interfere with energy, concentration, sleep, and appetite. Most of the children with depression lose interest in daily activities, social activities and schoolwork, dull and seem tired, give up easily, worried about the work and output, consider life hopeless and themselves helpless to effect any change for the better. They complain multiple issues like loss of concentration, poor attention and an inability to make decisions. This may be due to a loss of confidence in their abilities or a difficulty in thinking. In severe cases the patient may feel guilty, or even wicked, and state that they deserve to be punished for past misdemeanours or withdraw from friends or family. It can make everyday problems seem more difficult than they actually are. When depression is severe, it can lead kids to think about self-harm or suicide.

Psychological contributors to depression include low confidence, low self-esteem, negative experience gain from social, negative body image (Fat or thin, short in height), being excessively self-critical, and often feeling helpless when dealing with negative events. Children who suffer from conduct disorder, attention deficit hyperactivity disorder (ADHD), psychological aggression, frustration and anxiety, or who have cognitive difficulties (memory) or learning problems, as well as trouble engaging in social activities, also have more risk of developing depression. As reviewed by Avenevoli and Merikangas [2] there is evidence to support broad (e.g., stress), specific (e.g., parenting skills), and structural (e.g., divorce) family factors that explain or modify the association between depression in parents and children's development of depression or other problems.

Depression and anxiety may be a reaction to life stresses, like emotional adjustment, trauma in life, failure experience in life, verbal, physical, emotional, or sexual abuse, the death of a loved one, many problems in school life, bullying, suffering from peer pressure or

neglected by peer group. Many children who are struggling to adapt culture have found to be at higher risk for developing depression. Other contributors to this condition include poverty and financial difficulties in general, exposure to violence, social isolation, parental conflict, divorce, and other causes of disruptions to family life. Children who have limited physical activity, poor school performance, or lose a relationship are at higher risk for developing depression, as well.

Lack of proper screening for depression is one part of the problem in children's mental health, and efforts are underway to improve screening and detection for depression. Parents may also not see symptoms of a mental health problem or not be aware of how severe the problem is, due to lack of knowledge or understanding of depression in children.

An important direction in clinical research is to understand the predictors and moderators of intervention response so that programs can be targeted to the populations most likely to benefit. The present study focusing on children with depression problem and families who not understand the causes and management.

Aim and Objectives-

- 1- To find out the various dimensions of family environment and other social areas as predictor of depression among adolescent females and males.
- 2- Developing awareness, understanding and knowledge among parents about depression and management.

Inclusion Category

- Adolescence (boys and girls) (Age group 6 to 15 years)
- Adolescence (boys and girls) who referred by doctors for behaviour difficulties, poor scholastic performance and other psychological problem more than 2 months.

Exclusion

- Adolescence (boys and girls), above 16 years and duration less than a month are not including in this study.

Methodology Sample

One hundred thirteen children is taken 49 boys and 64 girls in the age group of 6-15 years from different school in Nagpur Maharashtra, India was chosen through random sampling technique for the present study. Only those subjects are taken who is referred for psychological intervention for behavior issues like – depression, anxiety, somatic

pain, ADHD and conduct disorder. Keeping in view the changing ways of life styles and the importance of coping skills, family support, and self-management as significant desire the following sample is collected from June 2018 to August 2019 (14 Months)

Measures

The following measures were used to assess the difficult areas were children didn't cope well, family, social environment and clinical areas of adaptive behavior.

1. CBCL Testing -Child Behavior Checklist for Ages 6–18 (CBCL/6-18; Achenbach and Rescorla 2001) The 113 items on this measure are rated as Not True (0), somewhat or sometimes True (1), or Very True or Often True (2). Validity and reliability are excellent, and extensive normative data are available for children ranging from 6 to 18.

ETHICAL STATEMENT

Ethical clearance was obtained from an ethical review board NKPSIMS and Lata Mangeshkar Hospital Nagpur. The case file information was de-identified during data collection and was coded.

Statistical Techniques Used:

The obtained data will be statistically analyzed by applying descriptive (Average, percentile, mean, standard deviation, and paired t-test) of significance of mean differences in term of various variable. We will enter all data and further Statistical Analysis will be done with the help of IBM- SPSS-25 software.

RESULTS AND DISCUSSION-

Table 1- Distribution Of The Study Subjects Children With Behaviour Issues According To Their Sociodemographic Characteristics.

AREAS	NO. OF COUNT	SCREENING POSITIVE
Gender		
Boys	92	49 (53%)

Table 2. Means And Sd Of School Going Children With Behaviour Problem Along With Their Statistical Significance Of Difference Between Means.

Areas	Paired Samples Test (Paired Differences)									
	Mean		Std. Deviation		Std. Error Mean		95% Confidence Interval of the Difference		t	Sig. (2-tailed)
	Boys	Girls	Boys	Girls	Boys	Girls	Lower	Upper		
Depressive Problem	48.06	60.28	33.634	23.839	4.204	2.980	-22.278	-2.160	-2.427	.018
Anxiety Problem	53.05	50.13	36.780	19.841	4.598	2.480	-6.389	12.233	.627	.533
Somatic Problem	48.67	52.55	34.297	20.908	4.287	2.613	-12.991	5.241	-.849	.399
Attention –deficit hyperactive Problem	59.77	46.19	37.615	18.130	4.702	2.266	2.114	25.042	2.367	.021
Oppositional defiant Problem	44.42	54.73	33.295	23.924	4.162	2.990	-20.333	-.292	-2.057	.044
Conduct Problem	45.59	34.38	36.520	19.182	4.565	2.398	2.650	19.787	2.616	.011

As it shown in [table no.2](#)-On child behaviour check list (CBCL) psychological assessment diagnosed with depression problem boys mean $48.06 \pm SD 33.634$, girls mean $60.28 \pm SD 23.839$, t value -2.427 is statistically not significant. But both high means indicate depressive problem. Prevalence of depression was 57.07%, boys prevalence 24.74%, and girls prevalence 32.32%. Depression showed to be a risk factor of suicidal ideation or behavior in adolescents: suicide ideation was present in male 12/92 (13%) and female 23/106 (22%). Adolescents with depressive symptomatology, and none adolescents had attempted suicide. In the study by Vazquez and Blanco [6], suicidal ideation also correlates with poor subjective and negative self-judgment, pessimism and low self-esteem, which is compounded by the stress of academic life, the kind of experiences in early life and personality.

Present study was found that most frequent co-morbid psychiatric disorder in depression problem cases, anxiety problem boys mean $53.05 \pm SD 36.780$, girls mean $50.13 \pm SD 19.841$, t value .627 is statistically not significant. Prevalence of anxiety was 77.87%, boys prevalence 81.63%, and girls prevalence 75%. Social anxiety disorder (SAD) is a very common mental health disorder [7] that typically begins in childhood or adolescence [8, 9] with highest incidence rates between the ages of 10 and 19 years [10]. As per Merikangas [11] and Axelson [12] had said these disorders share a common etiology, and longitudinal studies have identified childhood anxiety as a risk factor for developing depression. Present study has accumulated strong evidence directly linking depressive in parents around 29 (33%), with problematic parenting. Negative parenting has been found to persist

Girls	106	64 (60%)
Age		
6-8 Years	27	5 (19%)
9-10 Years	32	19 (59%)
11-12 Years	49	33 (67%)
13-14 Years	56	31 (55%)
15 and Above	44	25 (57%)
Class		
I,II,III, and IV	43	19 (44%)
V and VI	68	39 (57%)
VII and VIII	51	28 (55%)
IX and X	36	27 (75%)
Type of Family		
Joint	97	38 (39%)
Nuclear	101	75 (74%)
Family History of Depression or Anxiety		
Yes	87	29 (33%)
No	111	84 (76%)

Result of present study shows that on screening, numbers of girls child were more than boys although it was statistically significant ($x^2 182.728$, p value 0.000). Also it was found that most of the screening positive children were from higher age 11-13 years 33/49 (67%) and 39/68 (57%) subjects are belong to study in V to VIII Std. Study also conclude that higher number of positive children with depression from nuclear family 75/101 (74%), and found 29/87 (33%) said "Yes" for present family history of depression and anxiety. Social and developmental factors are related to higher depression rates among females [3,4]. Uses of media showed a high risk of depression in the age group, with estimates of 2-5% prevalence of major depression disorder [5]

even after controlling for the presence of major depressive disorder.[13]

In present study subjects with somatic problem misinterpret the headache, abdomen pain, and other symptoms associated with daily living as indications that they have serious psychological difficulties. Somatic problem boys mean $48.67 \pm SD 34.297$, girls mean $52.55 \pm SD 20.908$, t value -.849 is statistically not significant. Prevalence of somatic problem was 80.53, boys prevalence 73.46%, and girls prevalence 85.93%. Multiple studies showed [14, 15, 16] a positive correlation between somatic symptom severity and the severity of the anxiety disorder as well as the degree of the general impairment.

Anxiety and depression must be differentially diagnosed from attention-deficit /hyperactivity disorder because they share some symptoms such as inattention; the difference is that anxiety inattention is due to worry (irrational thoughts) and rumination, and depressive youths present poor concentration only during depressive episodes like ignorance, neglecting, present study shows Attention deficit hyperactive disorder boys mean $59.77 \pm SD 37.615$, girls mean $46.19 \pm SD 18.130$, t value 2.367 is statistically not significant. Prevalence of Attention deficit hyperactive disorder was 50.44%, boys prevalence 65.30%, and girls prevalence 39.06%, and Conduct problem, boys mean $45.59 \pm SD 36.520$, girls mean $34.38 \pm SD 19.182$, t value 2.616 is statistically not significant. Prevalence of Conduct problem was 38.05%, boys prevalence 57.14%, and girls prevalence 23.43%. Even on Oppositional deficit problem, boys mean $44.42 \pm SD 33.295$, girls mean $54.73 \pm SD 23.924$, t value -2.057 is statistically not

significant. Prevalence of Oppositional deficit problem was 55.75%, boys prevalence 55.10%, and girls prevalence 56.25%. ADHD can create a lot of challenges for kids, and those challenges can lead to depression. Academic and behaviour problems can wear down children's performance and confidence. ADHD can affect students socially, too. Peer group, teachers, parents, tuition classes and social group people tease or give negative feedback about their behaviour and performance, which can make them feel sad, isolated or even hopeless. Present study noted that in 37/113 (32.74%) cases, they may actually have ADHD and conduct problem. According to Biederman et al. [17]; Milberger et al. [18]; Biederman et al. [19]; Angold et al. [20] showed an epiphenomenal effect related to co-morbid disorders that occur widely in youths with ADHD (e.g., anxiety disorders, oppositional defiant disorders, or conduct disorders) (Angold et al. [20]; Burke et al. [21]). Other study Blackman et al. [22] has reported a higher rate of depression in youths with ADHD than in youths without ADHD, independent of other co-morbidity.

Academic performance has been identified as a high prevalence of depression and anxiety in school going children. Bardone, et al., [23]; Bernstein et al., [24]; Dux et al., [25]; Frojd, et al., [26]; Hishinuma et al., [27]; Kaslow et al., [28]; Kovacs et al., [29], cross-sectional studies have determined that depression is 7 associated with poor academic outcomes. They frequently faces academic problems whose demands must compare with their own resources. When psychological interview and evaluation of school tasks lead to conclude that they are more than they can do then threat and humiliation are experienced and justify rejection to school, such as academic satisfaction of parents around 85/113 (75%) subjects boys 33/49 (76%) and girls 48/64 (75%) parents are not academic satisfied with children academic performance even 55/113(49) parents expectation high over their academic performance. Learning disorder 32/113 (67%) subjects are facing reading, writing, arithmetic, spelling difficulties because of learning disorder and they are not taken interest to going to school 32/113 (87%) Jaureguizar J et al. [30]; also found poor academic performance. Subject teacher and other school teacher fear 32/113 (5%), parents fear 32/113 (45%) and subjects having fear of fail in examination. Younger children negative academic performance than older children [Rudolph 31], and that school difficulties act as a risk factor for children.

5/113 (25%) parents shifted for one place to another or school change this subjects are facing adjustment difficulties and feeling sad or aggression towards their parents for school change even 58/113 (51%) they did not getting supporting help in school. In 12/113 (25%) cases subjects are not taking participate in school sports activities or 12/113 (25%) other social cultural program. Verboom et al.[32] found that higher levels of depression were correlated with lower perceived social well-being and increased social problems. Study shows that children with depressive problem 12/113 (25%) not having hobbies or 25/113 (25%) subjects are engage their self in multimedia activities (Television program, mobile games, movies, chatting, etc.) Steers et al [33] found a positive association between the time spent on Facebook and depression when using a retrospective survey; this effect was nonsignificant when participants completed daily ESM diaries. In addition, 2 studies [34,35] conducted a 3-week follow-up and demonstrated no change in depressive or anxiety symptoms over time as a function of Social networking sites use frequency.

Lack of social support group (peer group, family, teachers, and school counsellor) have been found to be closely related to depression and anxiety. Peer group 25/113 (25%) negation, support and communication, 28/113 (25%) subjects said that peer group tease them for their academic performance. Harrist et al. [36] study noted children who display greater depressive symptoms are more likely to be rejected by peers, 2/113 (25%) children refusing physical disability children in their group or activities. In family most of the children are experiencing of negative events such as 2/113 (25%) negative relationship with parents, 2/113 (25%) shows family discord problems, 2/113 (25%) children said not having healthy relationship within parents such factors developing depression and anxiety. However, according to other works [Kennedy AC 37, Margolin 38– Chang KL 39], all the issues associated with family environment and depression comprise an environment exposed to risk. Parental divorce, a bad relationship between father and child and violence are aspects that are causes of potential depression in childhood. 2/113 (25%) children having single parent support even they face 2/113 (25%) financial problem, due to the financial problem some children feel their parents are not fulfilling their demands (Mobile, laptops, classes etc.) or needs

,and some children doesn't shows any personal expectation and need. In other hand 2/113 (25%) both working parents doesn't expend quality of time with children. Isolate or feeling no one loves them (feeling of rejection). Family history of affective disorders with conditions, experiences of negative events, such as parental loss in childhood, the absence of a confident, living in a chaotic family environment and physical or psychological abuse are vulnerabilities to suffer depressive symptoms.[40] Present study found that low level of social support as reflected in children loneliness or depressive problem.

Low levels of social support from peers, families and teachers have been found to be closely related to depression. Present study found that low levels of social support, as reflected in children's loneliness, was predictive of overall depression and depressive affect, and that these patterns of relationships existed in every grade level and among both boys and girls. The psychosocial factors are organized in levels, according to their impact, which range from the most proximal to the distal factors, which include the social and cultural context [41, 42].

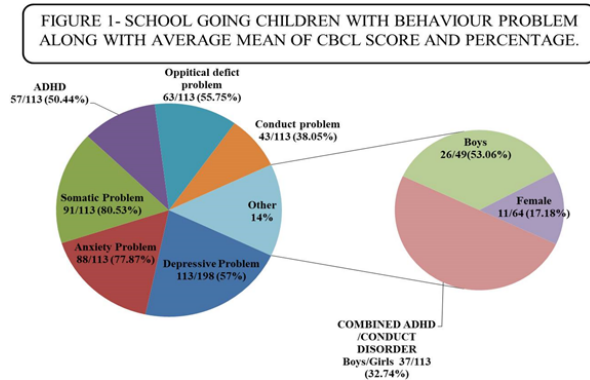
Table.3- Numbers Of Count Of Educational, Family, And Other Social Issues Faced By School Going Children With Percentage.

AREAS	Boys (N 49)	Girls (N 64)	Total Count (N113)
Educational Related Issues			
Academic Satisfaction of parents	37 (76%)	48 (75%)	85 (75%)
Not Performing well in academic	39 (80%)	42 (66%)	81 (72%)
Fear with teachers (Physical punishment)	19 (39%)	22 (34%)	41 (36%)
Teasing at school	18 (37%)	28 (44%)	46 (41%)
Academic stressor	29 (59%)	33 (52%)	62 (55%)
Changing school	23 (47%)	18 (28%)	41 (36%)
Lack of supporting help in school	26 (34%)	32 (50%)	58 (51%)
Lack of sport activities in school	33 (67%)	21 (33%)	54 (48%)
Lower level of participate in cultural activities	31 (63%)	36 (56%)	67 (59%)
Failure in examination	20 (41%)	38 (59%)	58 (51%)
Peer group communication	27 (55%)	41 (64%)	68 (60%)
School Refusing behaviour	19 (39%)	32 (50%)	51 (45%)
Family Problem			
Over Expectative parents	34 (69%)	21 (33%)	55 (49%)
Relationship issues with parents	32 (50%)	36 (56%)	68 (60%)
Argument with parents	26 (34%)	38 (59%)	64 (57%)
Relationship within parents	23 (47%)	18 (28%)	41 (36%)
Family discord	26 (34%)	43 (67%)	69 (61%)
Stress in family	24 (49%)	23 (36%)	47 (42%)
Sibling	12 (24%)	39 (61%)	51 (45%)
Family history of depression and anxiety	13 (27%)	18 (28%)	31 (27%)
Rejection	34 (69%)	53 (83%)	87 (77%)
Physical punishment or verbal punishment	32 (50%)	34 (53%)	66 (58%)
Working mothers	28 (57%)	32 (50%)	60 (53%)
Death of a family member	22 (45%)	19 (30%)	41 (36%)
Alcoholic parents	23 (47%)	25 (39%)	48 (42%)
Financial problem	18 (37%)	15 (23%)	33 (29%)
OTHER SOCIAL ISSUES			
Social isolation	36 (53%)	48(75%)	84 (74%)
Not having a hobbies	36 (73%)	52 (81%)	88 (78%)
Physical illness	2 (4%)	9 (14%)	11 (10%)
Having a boy/ girl friend	18 (37%)	32 (50%)	50 (44%)
Multimedia Addiction	42 (86%)	58 (91%)	100 (88%)

CONCLUSION

In conclusion, the present study provides evidence of a direct link between screening children with depression. Prevalence of depression was 57.07%, boys prevalence 24.74%, and girls prevalence 32.32%. The overall prevalence rates of childhood depression in India vary anywhere between 0.3% to about 1.2%.[43, 44] It notable that both chronic and acute psychosocial stressors are significant predators of depression and anxiety. Sandeep Grover et.al [45] study from India

they estimated the incidence to be 1.6%. With respect to the risk factors for depression. Some of the studies which have reported factors associated with depression have been clinic-based [46, 47, 48]. Nowadays, children is strongly related to anxiety and depression problem, more than any other time of life, and both disorders are related to other psychiatric disorders and substance abuse that negatively impact the academic performance. In addition, the negative environment plays an important role in the formation of personality and psychiatric illness. Study showed positively related to learning disorder 32/113 (67%) for developing negative attitude or psychiatric illness like- 113/198 (57%) depression, 88/113 (77.87%) anxiety, 91/113 (80.53%) somatic problem, 63/113 (55.75%) Oppositional defiant Problem, 57/113 (50.44%) ADHD, and 43/113 (38.65%) conduct problem. See Figure no.1.



Parenting is a bunch of keys to facilitating healthy development in children. Qualities of skills in parenting that have been found to be related to healthy development vary by age of the child. They range from the sensitive, responsive care giving especially needed by infants to the monitoring that is particularly needed by children and it's an important aspects of effective parenting across development include providing age-appropriate levels of warmth and structure to help children feel safe and to help regulate their emotions. Children also are dependent on their parents to facilitate their education and to obtain their medical care. Positive association between parental visitation and depressive symptoms; it is significant as it is widely believed that parental visitation is important for maintaining parent-child relationships. [49]

With respect to the risk factors for depression, the present study has positively noted various academic difficulties, isolated, diminished interest in play activities, concentration difficulties, fear, relationship issues with parents or at home, family-related problem, social issues, anxiety and aggression, pessimism, decreased sleep, somatic symptoms and other multimedia addiction. Psychotherapy (supportive behaviour therapy, music therapy, Interpersonal psychotherapy and cognitive behavioural therapy) is a kind of mental health counselling that entails working with a trained therapist to figure out ways to solve problems and cope with depression.

LIMITATION -

The results of this study "Evaluating and Understanding the Level of Depression among Children between 6 to 15 Years in Running Peadiatric OPD" were the statistically significant and shows high risk of depression and anxiety and it's a short-term study. In order to study the long-term psychological effects of cyber- bullied and behaviour difficulties to obtained results for a more extended population.

ACKNOWLEDGEMENT

We are extremely grateful to all the participants and their families for cooperation and took part in this study, and the whole term work in this study, includes interviews, computer data entry operator, clerical works, clinical psychologist, research scientists, and volunteers. The N.K.P. Salve Institute of Medical Sciences & Lata Mangeshkar Hospital and Research Centre provide core support for us.

FINANCIAL DISCLOSURE:

The authors have indicated they have no financial relationships relevant to this article to disclose.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

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