DIAGNOSTIC PROFILE IN CHILDREN PRESENTING WITH POOR SCHOLASTIC PERFORMANCE—A CLINIC BASED STUDY

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ABSTRACT: BACKGROUND: Learning is not a unitary process involving teacher and student. It also depends on the relationship and interplay of familial, psychological, educational, social and economical atmosphere in and around the child. **AIM:** The present study was done to formulate a diagnostic profile and compare the co-morbidity status in children presenting with poor scholastic performance in a Child Guidance Clinic set up. **SETTINGS AND DESIGN:** A sample of 100 children from the age of 4 years to 12 years attending the Child Guidance Clinic under the department of Paediatrics in a medical college set up with history of poor scholastic performance was collected. The study design was case study method. **METHODS AND MATERIALS:** Detailed psychological analysis was done and diagnosis was made by using the ICD – 10 diagnostic guidelines and multi axial diagnostic system. The study population was divided in to failure (group II) and non failure (group I) groups based on the repetition of grade and the psychiatric morbidity was compared. **STATISTICAL ANALYSIS:** Statistical analysis was done by SPSS (Statistical Package for the Social Sciences) and chi square test. **RESULTS AND CONCLUSIONS:** Psychiatric morbidity was present in 42%, developmental disorders in 34%, Non psychiatric medical diagnosis in 25% and abnormal psychosocial situation in 31% of the sample population. Multiple diagnoses were present in 16%. Comparison shows that Prevalence of psychiatric co morbidity was more in the failure group than the non failure group. Scholastic backwardness in children is a complex issue, having various causes. Each child's problem is unique in nature. So a multi disciplinary intervention is needed at Paediatric level itself.

KEY WORDS: Poor scholastic performance (scholastic backwardness); Failure group; Non failure group; Non intellectual factors; Academic achievement
MESH TERMS: Child Guidance Clinics; Paediatrics

INTRODUCTION: Learning is not a unitary process involving teacher and student. It depends on the relationship and interplay of familial, psychological, educational, social and economical atmosphere in and around the child. At individual level child's optimum cognitive development influences the learning behaviour. What is needed for optimal cognitive development is a combination of active learning experience that promote cognitive competence together with a social context in which style of interaction and relations promote self confidence and an active interest in seeking to learn independently of formal instruction.[1] Rutter points out that

although traditionally it is supposed that IQ predicts scholastic achievements, it is evident that schooling and improved education accomplishments may lead to IQ gains.

In the present competitive society the importance of academic achievements is stressed even before the child joins the school. The personal worth of parents is enhanced and appreciation is gained through their child's academic achievements. So the school and study process is becoming a stress for the students and parents. Parents are easily disturbed when their children do not perform up to their expectation in academics. Thus scholastic backwardness becomes a common reason for referral to a child guidance clinic. In this situation one has to address certain important questions. Firstly to find out whether the child is really having poor scholastic performance? Or is it the parent's over anxiety? Secondly if it is actually present, what could be the cause of scholastic backwardness? Is it a simple or complex issue? Finally what are the remedial measures for this condition?

Poor scholastic performance is only a symptom. It is a symptom, where the child will score poor marks which is below the class average or will be backward in relation to the average attainment for that age and grade. Usually they will be branded as lazy or stupid, but no child wants to be so. One should scientifically analyze this symptom. Symptom analysis should also include questions like when did the parents notice the problem of poor scholastic performance? Is it the child's scholastic achievements is below the average in the beginning itself? Is it declining or remain static? Or decline in the performance after a period of normalcy? Is there any explanation from the child or parent in this regard? Is there any associated behavioural problems, emotional issues etc in the child? Poor scholastic performance can be due to physical conditions like vision or hearing impairment, epilepsy and mental retardation, specific delays in the development of academic skills, hyper activity, and inattention, emotional and conduct disorders and adverse environment. Children in the preschool years were also brought with history of poor scholastic achievements. Here parent's over anxiety plays a major role. But we cannot send back the child without proper analysis.

The present study was done to analyze the causes and to formulate a diagnostic profile in children who were brought with a history of poor scholastic performance in Child Guidance Clinic under Department of Paediatrics in a medical college set up. It also compared the co morbidity status in children presenting with varying levels of poor scholastic performance.

Materials & Methods

This descriptive study was conducted in the department of Paediatrics, T.D. Medical College, Alappuzha, Kerala during January 2001 to December 2003.

Study sample

First 100 children brought with history of poor scholastic performance to the CGC during the study period were selected.

A) INCLUSION CRITERIA:

1. All children from 4 years to 12 years of age brought with a history of poor scholastic performance were included in the study population.

Children from 4 years to 12 years of age were included to address the parental concern for their child's study.

B) EXCLUSION CRITERIA:

1. All children with neurodegenerative disorders, cerebral palsy were excluded.
2. All children with vision and hearing impairment and mental retardation were excluded.

PROCEDURE: Mother was considered as the key informant. Child and mother were interviewed together and separately. A structured proforma was used to collect demographic data, personal, social and other associated problems apart from the academic performance of the child. During the first visit details of the learning behaviour of the child, behavioural and other emotional issues and their understanding about the problems were collected from the mother. Mother was asked to keep a diary narrating the details about the child's academic and behavioural issues.

Child was interviewed separately using the proforma to assess the mental status, which includes the child's perception of the condition and other problems. Each child's IQ assessment was done and those with mental retardation were excluded.

Parents were asked to visit the school and discus the academic, behavioural and any other specific issues regarding the child and get the report from the school authority. They were also asked to bring the textbooks and notebooks of all subjects during subsequent visits.

Father was specifically asked to come in the second visit especially in families with abnormal psychopathology.

The symptom profile was analyzed. Diagnosis of the problem was made using the ICD - 10 diagnostic guidelines.[2] In order to get a comprehensive and complete picture of the child, the multi axial diagnostic system of the Child and Adolescent Psychiatry was used.[3]

Co morbidity status among the children with varying level of poor scholastic performance of the study population was compared by dividing them into two, based on the failure status (repeating the grade). Students without failure during final examination were grouped as Group I and those with failure as Group II. Axis I, Axis II and Axis V problems among the groups were compared.

RESULTS: Results are shown in the tables no 1 to 9 and chart appended.

DISCUSSION: In our study children in the age group of 10 to 12 yrs [4th, 5th & 6th standards] formed the majority population presenting with history of poor scholastic performance. Usually children with scholastic backwardness will be first noticed by teachers and parents at 4th or 5th standards. This is because reading and writing becomes a part and parcel of their study and deficit in this area will become more evident during this time. Conduct disorders also will start manifest by this age. In the children at 4-6 yrs of age group the main diagnosis were ADHD and emotional disorders with onset specific to childhood.

Sex distribution shows that boy girl ratio is 3:2. This agrees with the literature.[4] Developmental disorders and conduct disorders are more common in boys.

Multi axial diagnostic profile (Chart No.1) shows that Axis I problems were present in 42%, Axis II problems were present in 34%, Axis IV problems were present in 25% and Axis V problems were present in 31% of the study population. Children with mental retardation were excluded from the study population. So Axis III is considered as nil.

Among the Axis I disorders (Table No.5) conduct disorder was the most common diagnosis. Other diagnosis were attention deficit hyperactivity disorder, oppositional defiant disorder, mixed disorders of conduct and emotion, and emotional disorders with onset specific to childhood including separation anxiety disorder, social anxiety disorder and sibling rivalry disorder. High association of scholastic backwardness with psychiatric morbidity is very well documented in various studies.[5-8] Kappelman et all analyzed 100 children attending learning disability clinic and grouped them into two broad categories- neurological handicaps (33%) and functional disorders (35%).[8]

Rolf Loeber had described the developmental unfolding of disruptive behavioural disorders.[9] Attention deficit hyperactivity disorder usually becomes evident in the developmental period of childhood. Here they will have problem in face to face task which needs attention. The child may move from one activity to another without completing anyone. Inattention will result difficulty in the learning process also. The co morbidity in attention deficit hyperactivity disorder and behavioural disorder discussed in literature.[10] Usually these children will be labeled as problem child in family and school. An empathetic approach is necessary to take these children into confidence. Widely accepted child rearing practice like corporal punishment for scholastic backwardness by parents and teachers may not work in these children. Children with emotional disorders onset specific to childhood should be identified and managed separately.

In present study 34% of children had developmental disorders (Table 6). Similar observation was made in a study with 46 children of 2nd, 3rd and 6th grade. [11] But in that study 20% had mental sub normality. Here children with mental retardation were excluded from the study population. There were children with specific developmental disorders scholastic skills together with specific developmental disorders of speech and language. The relationship between these two developmental disorders has to be further explored.

Among the medical disorders there were 7 children with primary complex, 11 children with bronchial asthma and 7 children with seizure disorder. All were on treatment. The medical illness resulted in school absenteeism and it produced only relative scholastic backwardness.

Important abnormal psychosocial situation noticed in the study were quarrelsome family, domestic violence, alcoholism, single parent, living separately, lack of warmth, inadequate stimulation, over involvement and over expectation by the parents and inadequate physical atmosphere. A study on 100 underachievers of a middle school run by Madras Corporation in India showed significance of abnormal psycho social situations which impaired the learning process.[12] Dysfunctional family forms a major non-intellectual factor, which determines the level of scholastic achievements of the child.[13] Similar observations were made in certain important studies also.[4,7,14,15] Other difficulties noticed were school change, medium change and other stresses at school (problems with teachers etc) Study habits may play a major role in the scholastic achievement of the child. Learning character of the child is also influenced by the parental schooling and mother's attitude in learning process.[15,16]The relationship between poor scholastic performance and abnormal psychosocial situation should be taken in to consideration while dealing with these children and family.

Co morbidity of both psychiatric illness and developmental disorders were together present in 16%. Co-occurrences of under achievement, emotional and behavioural problems are discussed in ICD –10.[2] Conditions like conduct disorders, hyperkinetic disorders and SDDSS had high degree of inter relatedness. The co morbidity is very well documented in various studies.[5, 16,17,18] Every third child with conduct disorder will have specific reading disorder.[19]

The co occurrence of psychiatric morbidity [axis I] and abnormal psychosocial situation [axis V] was more (17%) than that of developmental disorder [Axis II] and abnormal psychosocial situation together (7%). This gives the significance of abnormal psychosocial situation in formulating the abnormal psychopathology in affected children.

The study population was divided into two groups based on the presence of failure at least once in any standard. Group I is formed by 64 students without any failure in any grade (standard). Group II is formed by 36 students with failure at least once in any grade. Prevalence of the

psychiatric morbidity (Axis I disorder), developmental disorder (Axis II disorder) and abnormal psychosocial situation (Axis V disorder) among the two groups were compared. Comparison shows that Group II had more co morbidity in Axis I, Axis II and Axis V (Table 7, 8, and 9). The difference in the co morbidity among the two groups is statistically significant. This suggests that the child with severe degree of poor scholastic performance is suffering from more psychiatric co morbidity. The psychiatric co morbidity might be affecting their learning process and ability or scholastic backwardness might have produced more psychological problem. Which is primary? Both issues might be reciprocally related and perpetuating with each other.

The intervention strategies done were both psychological and pharmacological. Remedial education, individual counseling and family therapy were done. But it is beyond the purview of this study.

CONCLUSION: To conclude scholastic backwardness in children is a complex issue, having various causes. Each child's problem is unique in nature. As the age advances nature of psychological problems which interfere with learning process varies. In preprimary and primary students hyperkinetic disorders were predominant. This interfered with school going, behaviour in classroom and attention in the study. The SDDSS were manifested during the primary and upper primary level. In upper primary level the main issue was behavioural disorders. Family dynamics also plays a major role in the learning process. All these factors have to be considered while designing intervention strategies. Multiple diagnoses were another issue in children with poor scholastic performance. Children with severe degree of poor scholastic performance had more psychiatric co morbidity. Scholastic backwardness and other psychiatric co morbidity in the children are interrelated reciprocally.

So when a child is brought with complaints of poor scholastic performance, he/she should be analyzed in a detailed manner including his behaviour, learning behaviour, family dynamics and the resources that he had. Intervention strategies can be designed accordingly.

Recommendations

Certain recommendations can be suggested as follows:

- A Child Guidance Clinic/ Behavioural Paediatrics Unit should form part of all paediatric departments especially in teaching institutions in order to give a specialized service and training in the area of childhood behavioural problems and scholastic backwardness. A Child Psychiatrist experienced in child and adolescent mental health should lead the team.
- Awareness programmes, workshops and CMEs should be conducted periodically to parents, schoolteachers and Paediatricians regarding the childhood behavioural problems, complex nature of scholastic backwardness and intervention strategies.
- Traditional way of isolating and blaming approach towards the children with scholastic backwardness and behavioural problem should be replaced with empathy, recognition and understanding.
- This study points to the importance of conducting a large scale community based study to assess the causes and problems in children with poor scholastic performance.

LIMITATIONS:

- This is only a clinic based study.
- Adolescent populations were not included.
- The intervention strategies were not taken in to the study

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Table No.1 Age distribution of children

Age group in years	Number of Children(n = 100)
4 – 6	10
6 – 8	15
8 – 10	27
10 – 12	48

Table No. 2 Educational Status of mother

Educational Status	Number of cases (n=100)
Illiterate	10
Up to high school	45
Pre Degree (10 + 2)	30
Degree and above	15

Table No. 3 Economic Class of the family

Economic class	Number of cases (n=100)
Low income	50
Middle income	35
Upper income	15

Table No.4 Other observations in the family

Observations	Percentage of cases
Birth asphyxia	15
Family history of mental illness	16
Family help at school work	40
Getting tuition	45
Failure at school at least once	36

Table No.5 Diagnostic split up of Axis I (Psychiatric morbidity)

Sl. No.	Psychiatric morbidity	Number of cases (n=42)
1	Conduct Disorder	15
2	Oppositional Defiant Disorder	6
3	ADHD	6

4	Conduct Disorder with ADHD	3
5	Oppositional Defiant Disorder with ADHD	3
6	Mixed disorders of emotion and conduct	5
7	Emotional Disorders with onset specific to childhood a. Separation anxiety Disorder b. Social Anxiety c. Sibling Rivalry	 1 1 2

Table No.6 Diagnostic split up of Axis II (Developmental Disorders)

Sl. No.	Diagnosis	Number of cases (n=34)
1	Specific Developmental Disorders of Scholastic Skills	18
2	Specific Developmental disorders of speech and language	5
3	Both conditions together	9
4	SDDSS – Unspecified	2

Table No.7 Comparison of prevalence of Axis I problems in the Group I and Group II

Axis I Problems	Group I		Group II		Total
	Number	Percentage	Number	Percentage	
Present	15	23.4	27	74.9	42
Absent	49	76.6	9	25.1	58
Total	64	100	36	100	100

$X^2 = 25.1$, df = 1, p = 0.000

Table No.8 Comparison of prevalence of Axis II problems in the Group I and Group II

Axis II Problems	Group I		Group II		Total
	Number	Percentage	Number	Percentage	
Present	13	20.3	21	58.3	34
Absent	51	79.7	15	41.7	66
Total	64	100	36	100	100

$X^2 = 14.8$, df = 1, p = 0.000

Table No.9 Comparison of prevalence of Axis V problems in the Group I and Group II

Axis V Problems	Group I		Group II		Total
	Number	Percentage	Number	Percentage	
Present	10	15.6	21	58.3	31
Absent	54	84.4	15	41.7	69
Total	64	100	36	100	100

$X^2 = 19.7$, df = 1, p = 0.000

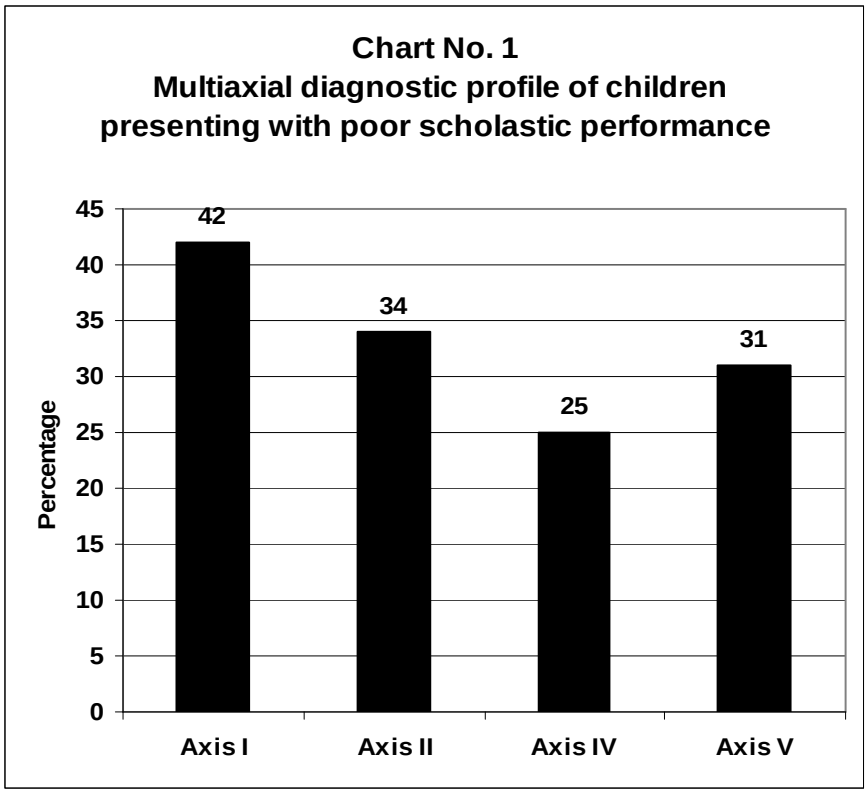
Chart No. 1
Multiaxial diagnostic profile of children presenting with poor scholastic performance
Percentage
45
40
35
30
25
20
15
10
5
0
42
34
25
31
Axis I
Axis II
Axis IV
Axis V