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Award Paper

Clinical Profile of Children and Adolescents Attending the Behavioural Paediatrics Unit OPD in a Tertiary Care Set Up

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ABSTRACT

Background: There are limited studies on the clinical profile of children attending child guidance clinic under Paediatric background.

Aims: To study clinical profile of Children & adolescents attending the Behavioural Paediatrics Unit (BPU) OPD under department of Paediatrics in a tertiary care set up.

Methods: Monthly average turnover in the OPD was calculated from the sample collected during the period from 1.06.2010 to 31.05.2011. The diagnosis was done using the ICD-10.

Results: Totally 264 children attended the unit on an average in a month out of total 9750 children attended the parent Paediatrics OPD. Hospital based prevalence is 2.71%. There was male preponderance (63.63%) and majority of the children were in the age group of 6-12 years (60.98%). Developmental disorders (34.46%) were commonest, followed by externalizing disorders (34.09%), internalizing disorders (15.9%), somatoform disorders (12.12%) and miscellaneous group (15.15%). Dysfunctional type of family was noticed in 31.8%.

Conclusions: The clinical profile of mental health disorders in the BPU OPD under the Paediatric tertiary care set up was constituted by higher prevalence of developmental, behavioural disorders, anxiety spectrum disorders and somatoform disorders and lower prevalence depressive disorder, psychosis and bipolar disorder than that of the CGCs under Psychiatric set up.

Key Words: Behavioural Paediatrics Unit (BPU), tertiary paediatric care set up, developmental disorders, externalizing disorders, internalizing disorders, somatoform disorders.

Introduction

The due importance is given to the physical health of the children and adolescents in all social groups. But developmental, behavioural and emotional aspects of the children are not getting enough concerns. There are many reasons for this. Important ones among them are widespread lack of knowledge about child development and childhood mental disorders, limited number of professionals, lack of training in the field, poor financial assistance and relatively weak advocacy. The situation is relatively same across the world [1]. Apart from this there are many other reasons for the under utilization of services like stigma, cultural traditions, cost, reluctance on the part of parents or children to seek help, difficulty in getting to providers etc.

The community prevalence of mental health disorders among children and adolescents across the globe is 20% [2]. Community prevalence studies from different countries give relatively varying results such as USA-21% [3], UK-10% [4] and India-12.5% [5]. In a study conducted among 8-12 year aged school children in Kerala the

community prevalence is 9.4% [6]. In a similar study among school going children in Chandigarh in the age group 4-11 years it is 6.3% [7].

There are studies on the clinical profile of children and adolescents attending a child guidance clinic or similar centers under psychiatric background. Certain earlier studies under general psychiatry clinic shows clinical profile of mental retardation 30% and epilepsy 16% [8], mental retardation 23% and epilepsy 21% [9] and mental retardation 27%, breath holding spell 11% and hyperkinetic syndrome 7% [10]. Retrospective analysis of the clinical profile of the children attending the child psychiatry clinic over a period of 26 years in PGI, Chandigarh shows significant shifts in demographic and diagnostic profile over a period. In this study common diagnosis were mental retardation (18.4%-33.2%), neurotic and stress related disorders (16.4%-18.5%), epilepsy and organic brain disorder (7.1%-15.1 %) and hyperkinetic and conduct disorders (8.3%-17.9%) [11]. In another study conducted in CGC, Command Hospital, Pune diagnostic profile shows mental retardation in 30.97%, behavioral and emotional disorders together in 23.06% and neurotic, stress related and somatoform disorders together in 15.98% cases [12]. The clinical profile of children and adolescents attending a child guidance clinic or similar centre attached to a Paediatrics department in a tertiary care referral set up are very limited.

The aim was to study clinical profile of Children & adolescents attending the BPU under department of Paediatrics in a tertiary care setup.

BPU is lead by a Child Psychiatrist who is also an associate professor of Paediatrics. The unit gives exclusive mental health service to children and adolescents from the parent

department and referrals from outside. It gives mainly OP service and runs on five days in a week.

Materials and methods

Study population: Children and adolescents attending the BPU, Department of Paediatrics, SAT Hospital, Govt. Medical College, Thiruvananthapuram, Kerala constituted the study population. Being a Paediatric tertiary care referral centre and a teaching hospital, children were referred from entire Kerala and nearby districts of Tamilnadu.

Study Period: Monthly average turnover in the BPU OPD was calculated from the sample collected during the period from 1.06.2010 to 31.05.2011.

Procedure: Initial clinical evaluations including development assessment were done by paediatric resident using a detailed proforma. Then each child was seen by the consultant child psychiatrist and diagnosis was done using the ICD-10 diagnostic guidelines [13]. The multi axial diagnosis was made using Rutter's pentaxial diagnostic system [14]. The pentaxial diagnostic system consists of Axis I- Psychiatric diagnosis, Axis II- Developmental disorder, Axis III- Intelligence, Axis IV- medical diagnosis and Axis V- Abnormal psycho social situation. The IQ assessment was done by the clinical psychologist if required. The significant life events were recorded.

Epidemiological and clinical profile of the child psychiatric morbidity pattern for each month was formulated separately as well as aggregating total to derive on the average monthly figures. Data were entered in excel sheet and appropriate statistical analysis were done using SPSS software.

Results

The average number of children and adolescents attending the Behavioural Paediatrics Unit OPD in a month was 264 out of total 9750 children attending the parent Paediatric OPD.

Table 1 shows age and sex distribution among study group. There is male preponderance. Age group 6-12 years is the commonest sub group.

Table 1 Age and sex distribution among the study group (n=264)

Age group in years	Male (%)	Female (%)	Total (%)
0-3	7 (63)	4 (36.36)	11 (4.17)
3-6	35 (70)	15 (30)	50 (18.94)
6-12	98 (60.8)	63 (39.13)	161 (60.98)
12-18	28 (66.67)	14 (33.33)	42 (15.91)
Total	168 (63.63)	96 (36.36)	264 (100)

Analysis of socio economic status among the study group shows that there was preponderance of children from the middle socio economic group followed by lower socio economic one. Percentage of dysfunctional family with abnormal psychosocial situation was 31.8.

Chart 1 shows the clinical profile of BPU in a month.

Chart 1 Clinical profile of Behavioural Paediatrics Unit OPD in a month

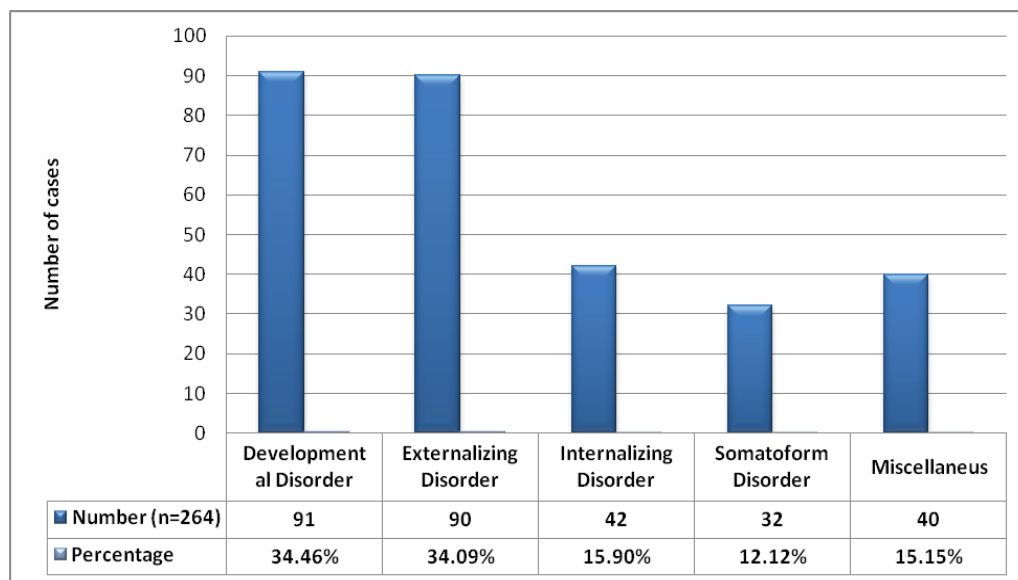


Chart 2 shows diagnostic split up of developmental disorders. Children with mental retardation and specific learning disability form the largest group among developmental disorders. Multiple diagnoses were noticed among specific learning disability, mental retardation and pervasive developmental disorder and behavioural disorders.

Chart 2 Diagnostic split up of developmental disorders.

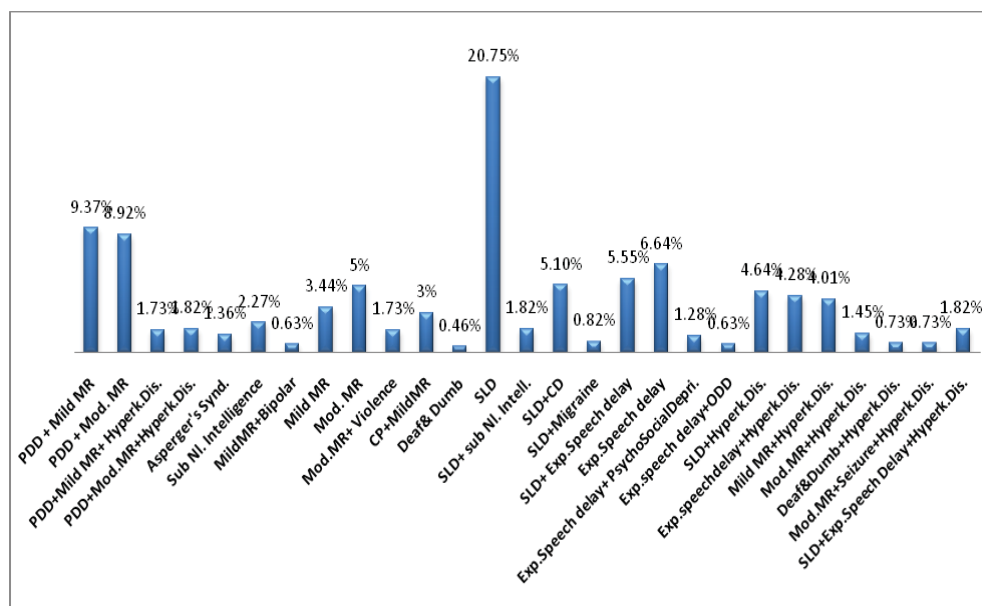


Chart 3 shows diagnostic split up of externalizing disorders. Among externalizing disorders the largest groups were the children with Hyperkinetic disorder and conduct disorders. Multiple diagnoses were noticed.

Chart 3 Diagnostic split up of externalizing disorders.

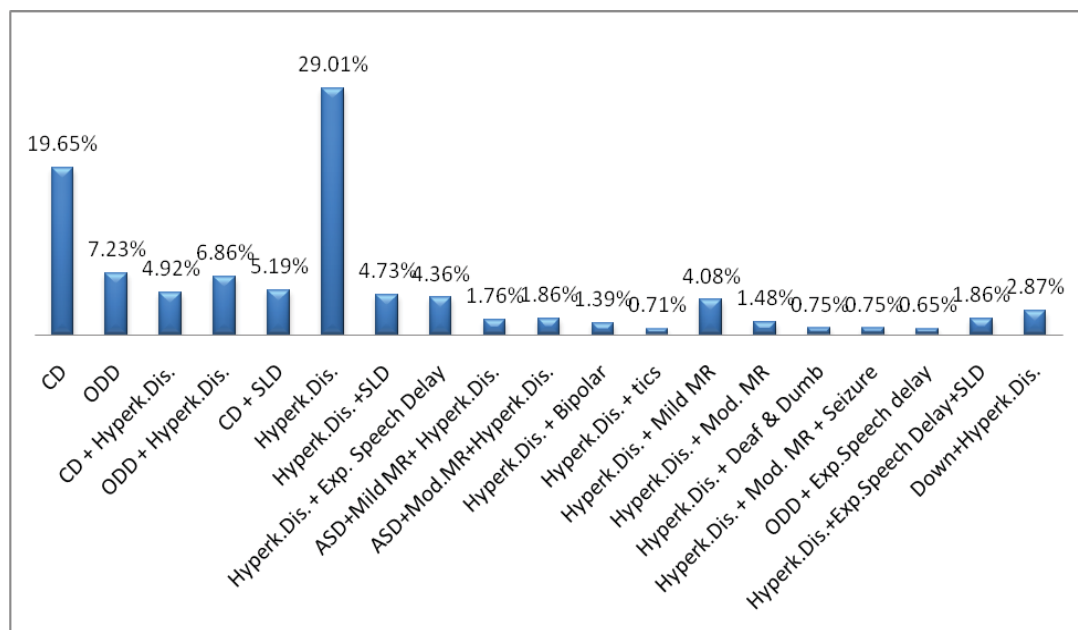


Chart 4 shows diagnostic split up of internalizing disorders. Among internalizing disorders phobias and adjustment disorders were common.

Chart 4 Diagnostic split up of internalizing disorders.

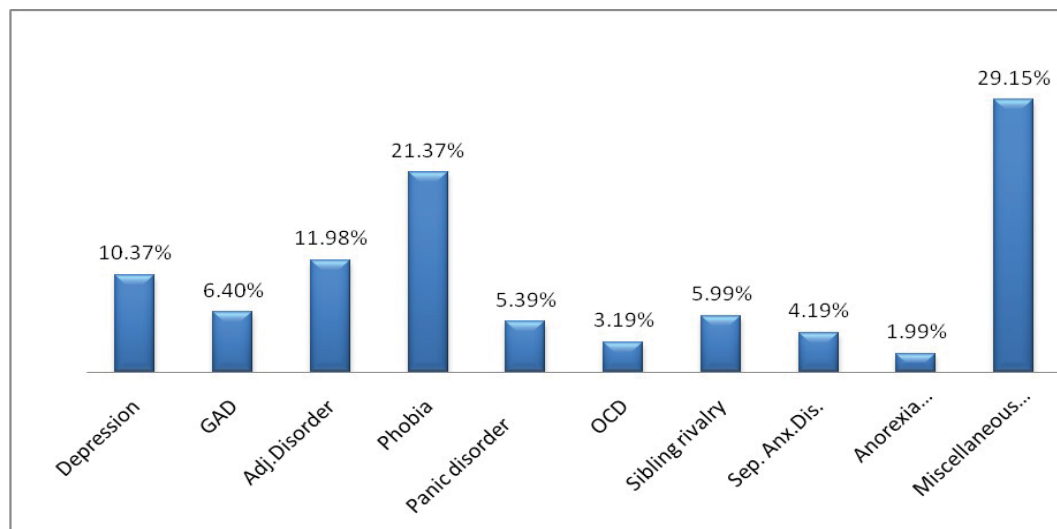
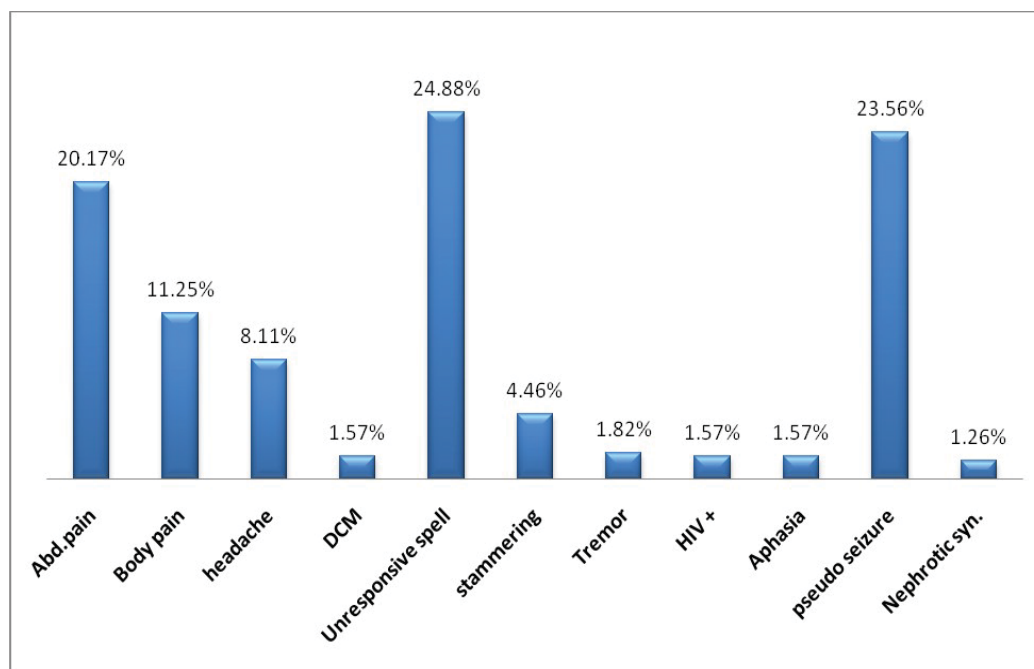


Chart 5 shows the clinical profile of somatoform disorders. Among somatoform disorders children with unresponsive spells, pseudo seizures and abdominal pain form the largest group.

Chart 5 Clinical profiles of children with somatoform disorders.



Discussion

There was significant male preponderance (63.63%). Similar observations were made in the previously mentioned studies under Psychiatric background also [11, 12]. Dominant sub group was 6-12 years (60.98%). The clinical manifestation of common behavioural and developmental disorders among children such as Hyperkinetic disorder, conduct disorder and learning disability usually become very evident and problematic in the primary and upper primary age group and it is common among boys. The family and academic sphere of the child will be affected during this stage and will be brought for help. But the percentage of 6-12 year age sub group was only 48.35 in one of the above mentioned study [12] and largest sub group was 10-15 years in the other mentioned study [11]. This reveals that a good number of children at relatively younger age group with

developmental and behavioural problem were brought for help in the BPU than in CGCs under Psychiatric background due to the direct reference and lesser stigma. There was age related change in the childhood psychiatric morbidity and it was demonstrated in the CGCs of Psychiatric background also [7, 8]. Poor representation of the age group 0-3 years were observed in a Psychiatric pattern of children attending Paediatric OPD [15]. The common disorders in this age group were developmental disorders and it takes time to get the attention of the parents.

The relative predominance of middle socioeconomic group was observed in previous study [16]. Inference is that since being a referral centre more children from the middle socio economic group with good awareness regarding importance of child mental health and availability of service facility were brought for consultation.

The hospital based prevalence of child psychiatric morbidity in the present study was 2.7% (see Table 2). This is very much below the community prevalence of 12.5% in India [5]. It reveals that in our country child mental health service seeking behaviour is very poor due to the previously mentioned reasons.

The child psychiatry clinical profile of children and adolescents in the present study was (n=264) developmental disorders (34.46%), externalizing disorders (34.09%), internalizing disorders (15.9%), somatoform disorders (12.12%) and miscellaneous group (15.15%). The relatively same prevalence of developmental and externalizing disorder could be due to the uniqueness of the paediatric referral background where children with both developmental and behavioural problems will be brought for help.

By comparing the BPU data of clinical profile with that of community prevalence [5] two observations can be made out. The developmental disorders except mental retardation were not identified at the community level. This could be due to the poor awareness among the parents in the community apart from the small sample size as was mentioned in the study itself [5]. Behavioural and emotional disorders are identified in the community prevalence study but it may need further exploration.

Comparison of the clinical profile of child psychiatric pattern of Behavioural Paediatric Unit with that of the CGC under Psychiatric back ground [12] shows that developmental disorders except mental retardation and externalizing disorders are more represented in the Paediatric background. As mentioned earlier children with these problems will be easily suspected and referred directly to the child mental health centre under a Paediatric background and parents will have more acceptability due to lesser stigma.

The percentage of mental retardation was 16 (n=264) which includes co morbidity with pervasive developmental disorder, expressive speech delay and hyperkinetic disorder. The percentage of mental retardation is less in the present study compared to above mentioned studies. In our set up usually the mentally retarded children with and without seizure disorders will be seen directly in the Paediatric neurology department in the same campus. The percentage of pervasive developmental disorder was 8.05. No comparable clinical data could be traced regarding this. It was associated with co morbidity of mental retardation, hyperkinetic disorder and other behavioural problem. The percentage of specific learning disability in the unit was 14.05

and 0.47% in the comparable study [12]. It was present alone and in association with co morbidity of behavioural disorders and expressive speech delay. Percentage of children with expressive speech delay in the unit was 7.01 and 1.4% in the comparable study. Higher percentage of developmental disorders in the unit is very unique and it needs further exploration.

The total percentage of Hyperkinetic disorder was 22.94 (n=264). It was present in isolation and in co morbidity. The comparable studies show 12% [12]. A western study shows percentage up to 50% [17]. The percentage of behavioural disorders including oppositional and conduct disorders were 14.94 (n=264). It was seen in isolation as well as in association with co morbid condition like hyperkinetic disorder and learning disability. The comparable studies show 1.41% [12]. The higher percentage of hyperkinetic disorder and behavioural disorders is due to the uniqueness of the paediatric referral centre where the children with hyperactivity will be easily picked out and referred from parent department as well as peripheral paediatricians. Parents of children with hyperkinetic disorder and behavioural problem will have a reluctance to go to psychiatry clinic directly due to social stigma. Since BPU is attached to Paediatric department they will prefer to attend to.

The internalizing disorders group was mainly constituted by anxiety spectrum disorders including phobias and panic attack (5.24%); the adolescent issues (4.61%), adjustment disorder (1.89%), depressive disorder (1.64%) and the miscellaneous adolescent emotional issues. Adolescent emotional issues reflects the usual rebellious and negative attitudes and adjustment problems which creates problem in the family and

school atmosphere. Impulsive suicide attempt were noticed in certain cases. Comparison shows that more children with anxiety spectrum disorders, adjustment disorders and mild emotional issues were brought to BPU than that in the Psychiatric background due to above mentioned reasons. But children with depressive disorder as well as other major mental illnesses are less represented in the clinic of Paediatric background than that in the Psychiatric background due to the under representation of adolescent population. Adolescent populations were less represented in the present study due to the fact that traditionally only children up to the age of 12 years will be seen in the Paediatric background. This also reveals that children with major mental disorders will be referred and mainly seen in the CGCs under Psychiatric background.

The percentage of children with somatoform disorder was more in the present study due to the easiness in identification in a Paediatric background. Usually these children will be referred from the paediatric ward after complete evaluation for physical illness including seizure disorder. Somatoform disorder group gives a wide range of clinical presentations. Common patterns of presentation were unresponsive spells, pseudo seizures, abdominal pain and body pain. Similar pattern of presentations were observed in a study done in paediatric background [18].

The percentage of multiple diagnoses was more (26.22) in the present study than that (14.1) in the comparable study [12]. Higher representation of developmental and behavioural disorders in the present study could be the reasons for this.

In the present study the percentage of dysfunctional family with abnormal psychosocial situation was 31.8. The important abnormal psycho social situations noticed

were alcoholism, domestic violence, alcoholism and domestic violence together, single parent, divorced, living separately, un settled trial for divorce, joblessness, extra marital affair, children of convicted persons, one parent abroad (usually father), both parents abroad etc.

There is need for extensive comparative study on epidemiological and clinical profile of mental health disorders among children and adolescents attending the child mental health service centres in the paediatrics as well as psychiatric background. This will throw more light in to the gray area of child and adolescent mental health disorders.

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