

STUDY ON THE PREVALENCE OF BEHAVIORAL AND EMOTIONAL PROBLEMS IN FAMILY HEALTH CARE SYSTEM

MARIA DUNCA¹, FELICIA IFTENE², R. BALÁZSI³, P. SZABÓ⁴, M. VARGA⁵

^{1,2}University of Medicine and Pharmacy "Iuliu Hațieganu", Cluj Napoca, ^{3,4,5}University "Babeș-Bolyai" of Cluj Napoca

Keywords: attention deficit, hyperkinetic syndrome, behavioral disorder, Achenbach scale

Abstract: Hospitalized children often have mental health problems which can significantly interfere with any stage of medical care protocol, from diagnosis to treatment. This fact supports the need for psychological screening in order to identify patients with emotional and behavioral disorders; an evaluation that can take place during an ordinary GP physical consultation. In this context we proposed a research which aimed to investigate the mental health problems of children that presented to the family physicians with health complains. The study involved children from two age groups: N = 88 aged 1.5-5 years and N = 218 aged 6-11 years whose behavior was rated by their parents/teachers. **Achenbach System of Empirically Based Assessment** was used to assess children's behavior. The obtained results sustain the importance of including the screening type mental health assessment in the protocol of family medical care.

Cuvinte cheie: deficit de atenție, sindromul hiperkinetic, tulburări comportamentale, scale Achenbach

Rezumat: Copiii spitalizați prezintă frecvent și probleme de sănătate mentală ce pot interfera semnificativ cu problemele medicale, atât în etapa de diagnostic, cât și în cea de tratament. Acest fapt susține necesitatea unui screening psihologic pentru identificarea pacienților cu probleme emoționale și comportamentale, evaluare care poate avea loc în cadrul consultului la medicul de familie. În contextul dat ne-am propus ca și obiectiv investigarea problemelor de sănătate mentală la copiii care se prezintă la medicii de familie cu probleme de sănătate din două categorii de vârstă (1.5-5 ani și 6-11 ani). În studiu au participat părinți/educatori și copii în categoriile de vârstă: N=88 cu vârstă între 1.5-5 ani și N=218 cu vârsta între 6-11 ani. Pentru evaluarea comportamentului la copii au fost utilizate Scalele de Evaluare Achenbach. Datele prezentate susțin importanța includerii protocolului de evaluare de tip screening în consultul medical familial.

INTRODUCTION

According to (American Association of Psychiatry, 2002) more than one in 10 children (0-17 years) suffer from a mental health problem. The same source indicates that less than 20% of these children receive specialized services. This may partly explain the suicide in children: the fourth factor (10-14 years old) and the third factor (15-24 years old) cause of death (Chakrabarti & Fombonne, 2005).

Due to changes in the theoretical approach of ADHD, to the reported cultural differences, and the lack of unique diagnostic scales, epidemiological studies indicate a frequency between 5 to 10% of ADHD (Attention Deficit Hyperkinetic Syndrome) in the general population. Various studies report different values of frequency of ADHD in the general population, explained partly through the used assessment and diagnostic criteria (Achenbach, Howell, Quay, and Conners, 1991; Crijnen, Achenbach, & Verhulst, 1999). The prevalence of ADHD in the general population seems to be higher (can reach up to 20%) if the clinical diagnostic is based on results from behavioral scales (analysis does not require necessarily a psychiatric diagnosis) (Voorde, Roeyers & Wiersema, 2010). It may be noted, however, when all the inclusion criteria are taken into account (including the duration of symptoms) the psychiatric diagnosis of ADHD range between 5 and 10% and the registered frequency for hyperkinetic syndrome (HKD)

range between 1-2%.

One of the most common methods to assess young children is using the Diagnostic and Statistical Manual diagnosis of the American Psychiatric Association (DSM-IV, 1994). In their review on psychiatric diagnosis in preschool children, Angold & Egger (2004) suggests that psychiatric diagnosis for this age category left behind approximately 30 years compared with those applied to older children.

The authors indicate that they have published only a few epidemiological studies of DSM diagnosis in preschool children (Earls, 1982; Keenan and Wackschlag, 2000; Voorde, Roeyers & Roelf, 2010). Most studies had small samples, low response rates and incomplete results.

Diagnostic procedures varied widely between studies, as well as prevalence of disorders. In three studies cited by Angold & Egger (2004), the prevalence of I axis disorders ranged from 14-26%.

Despite the fact that structured interviews were not validated for preschool children Angold & Egger (2004) concludes that the tools and psychiatric categories designed for older children seem to be applicable to preschool also, and the prevalence of any diagnosis in this age group appear to be "similar" to those found for older children and adolescents.

Epidemiological studies of DSM-IV disorders on large samples taken from the whole population of preschool children

¹Corresponding Author: Dunca Maria, 760 Private Medical Practice Dunca Maria, Vișeu de Jos, Maramureș, România; e-mail: d_dunca@yahoo.co.uk; tel +40-0 757664303

Article received on 10. 08.2010 accepted for publication on 21.09 2010
ACTA MEDICA TRANSILVANICA December 2010; 2(4) 190-193

require well specified and uniform diagnostic procedures (Ivanova, Dobrea, Dopfner, Erol, et al., 2007; Fombonne, 2003). Even if DSM-IV disorders such as ADHD and pervasive development disorders in children were largely studied, there is a lack of systematic epidemiological data on prevalence, behavioral patterns and data regarding the discriminative power of DSM-IV symptoms scale (Rescorla, 2007).

From a theoretical point of view, behavioral rating scales have played an important role in establishing clinical classifications categories in child psychopathology (Achenbach & Edelbrock, 1978; Wallon, 1965). At the same time they also represented the best way to analyze the relationship between different academic and social or behavioral problems (Gresham & Elliot, 1989; Frentz, Gresham & Elliot, 1991).

From a practical point of view, behavioral rating scales are used primarily as: (a). a primary tool for screening, (b). monitoring different kind of clinical interventions, (c). also a number of studies indicate the usefulness of these instruments on the ground that often the fastest response that can have a clinical or school psychologist is to provide such a tool to a teacher or parent to assess the child's behavior (Elliott, Busse & Gresham, 1993). In these situations, the results offered by such scales provide to the clinical psychologist a framework for analyzing the patient's case.

McConaughy & Skiba (1993) identifies two more benefits of using behavioral scales: (a) most of them include a substantial number of items covering a wide range of potentially relevant issues and thus broaden the context of understanding the case (b) permit the aggregation of items to facilitate empirically derived scales assessment and analysis of syndromes which often tend to be co-morbid.

In order to achieve the above mentioned aims, child psychopathology assessment instruments have to be (1) standardized (2). based on data relevant norms, (3). allow comparison of results from multiple sources.

THE AIM OF THE STUDY

This study aims to investigate the prevalence of mental health problems in children who presented to family doctors with health problems in two different populations defined by age criterion (1.5-5 years and 6-11 years).

MATERIAL AND METHOD

The participants were parents and children in two age groups: N=88 for ages between 1.5-5 years ($m=3.2$, $s=1.35$) and N=218 for age groups between 6-11 years ($m=8.65$, $s=3.71$).

The clinical symptomatology present at the medical consultation had been diverse, including disorders like digestive, cardiac, respiratory, metabolic, nephrologic and hematological diseases.

For the evaluation of behavioral disorders in the age group 1.5-5 and 6-11 years the *ASEBA instruments (Achenbach System of Empirically Based Assessment)* has been used.

Aschenbach system uses two scales completed by parents or teachers, one for assessing the age group 1½ - 5 years, and the second one for the age groups 6-11 years (for a detailed description of the scales see Achenbach & Rescorla, 2000).

The version for parents 1½ - 5 years (*CBCL 1½ - 5 - Child Behavior Checklist*), is made up of 100 items. The evaluator must score on a scale from 0 to 2 (0=false, 1=sometimes true, sometimes false; 2=true) 99 items, formulated in terms of problems; the parent must evaluate to what extent the items were characteristic for the child in the last 2 months.

C-TRF (Caregiver- Teacher Report Form) is a scale at

used in teachers or in those who regularly interact with the child in a non family context: care takers, staff at the kindergarden or educational facility.

From the 100 items of the C-TRF 1½ - 5 years, most are identical to the CBCL 1½ - 5 years (82 common items), while the items specific for the family context have been replaced with items specific for the kindergarden context or other group situations the child are in (i.e. groups exercising their hobbies).

C-TRF 6-11 years is a revised version of the C-TRF 5-18 years (Achenbach, 1991). It is filled in by teachers or educators who know the child in a school setting. Like in the case when parents fill in the scale, the novelty of this scale refers to the age group it refers to. Furthermore, some of the items from the old scale which were rarely relevant have been replaced.

The current version is made up of 20 items which evaluate social competence and adaptation and 113 items which evaluate various empirical derived syndromes or which have DSM-IV correspondence.

For most ASEBA scales, most test-retest correlations are between the values of 0,80 and 0,90, with a mean r of 0,85 and 0,81 regarding all scores for CBCL and TRF. The r coefficient for total problems was 0,90 for CBCL and 0,88 for TRF. The statistical analysis has been performed using SPSS 16.

RESULTS AND DISCUSSIONS

Based on a critical value established in the general population, the percentage of children which go over the critical value has been calculated (7% highest scores). The analysis has been performed on age and type of evaluation. (parent or caregiver/teacher) (see graph 1).

As one can see from the data in graph 1, 2.27% of parents have evaluated the affective problems as being of clinical intensity.

The percentage of anxiety disorders has the highest values in percentage point, 20.45%. With regards to somatic disorders 6.81% of parents believe their presence to be of clinical intensity.

The dimension of ADHD disorders is comparable to the one of affective disorders, 2, 27%. Oppositional disorder is present in 6,65% of the children who visit the general practitioner, while behavioural problems appear with a frequency of 3.6%.

Graph 2 shows that 12.9% of the parents have evaluated affective problems as being of a clinical intensity (see graph 2). The percentage of anxiety disorders has the highest values in percentage point, 13.4%.

With regards to somatic disorders 11% of parents believe them to be of clinical intensity.

The level of ADHD disorders is equal to the one of affective disorders, 9,5%.

Oppositional disorder is present at 9.4 % of the children who visit a general practitioner, while behavioural problems have a frequency of 5,2%. (see graph 3)

As the data in the graph show, 15.6% of teachers have evaluated affective problems as being of clinical intensity.

The percentage of anxiety disorders has the highest values in percentage points, 5.5 %.

With regards to somatic disorders 7.9 % of parents believe they are present with clinical intensity.

The level of ADHD disorders is identical to the one of affective disorders, 6.9 %.

Oppositional disorder is present in 11% of the children who visit a general practitioner, while behavioural problems have a frequency of 5,2%.

PUBLIC HEALTH AND MANAGEMENT

Figure no. 1. Distribution of the percentages of the children based on scores from different ASEBA-CBCL scales in the population 1.5-5 years (N=88)

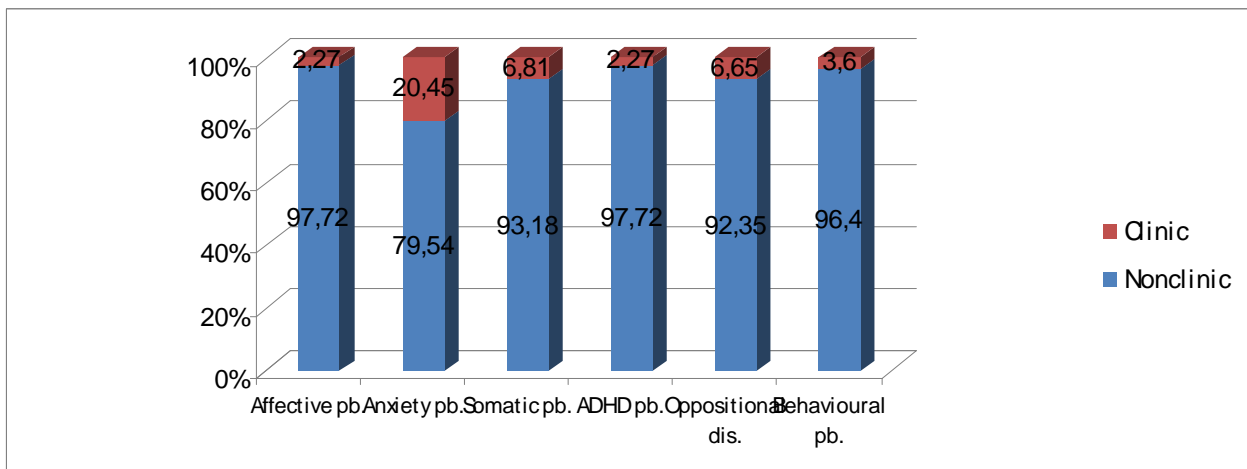


Figure no. 2. Distribution of the percentages of the children based on scores from different ASEBA-CBCL scales in the population 6-11 years (N=218)

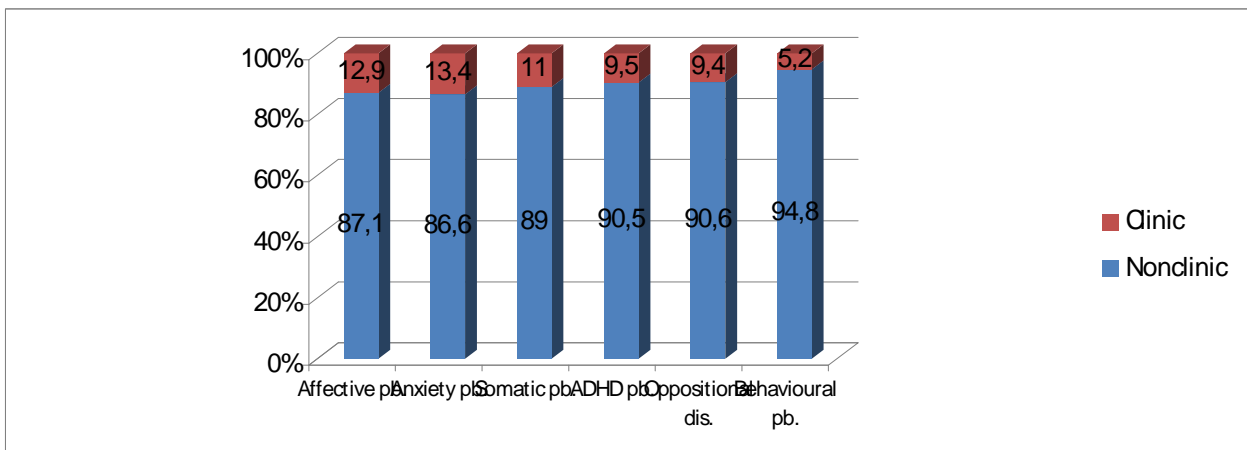
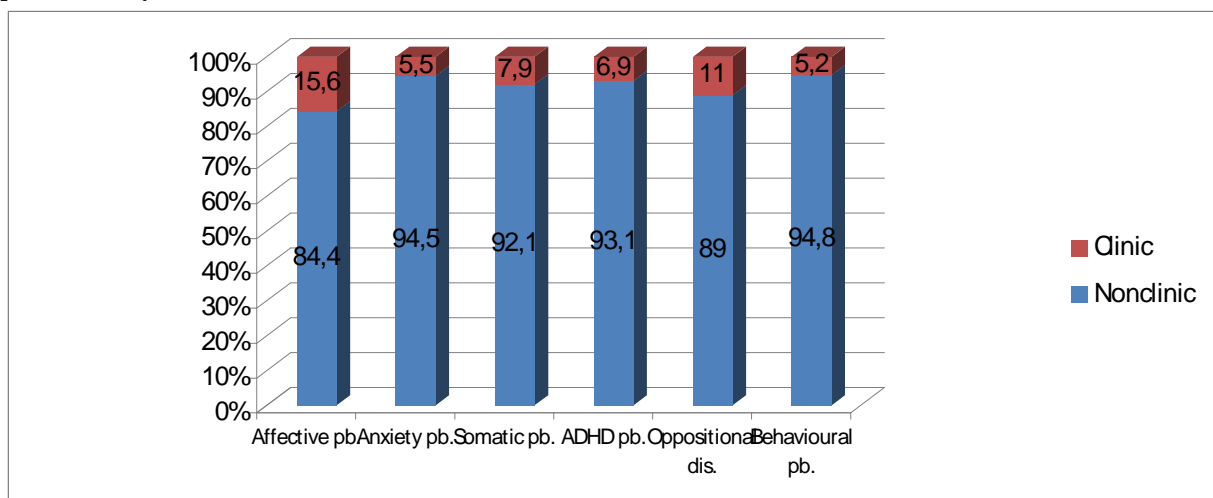


Figure no. 3. Distribution of the percentages of the children based on scores from different ASEBA-TRF scales in the population 6-11 years (N=218)



CONCLUSIONS

The present research started from the idea that hospitalized children and adolescents, namely the efficiency and successful approach to hospital care depends on a number of

psychological aspects that may facilitate or interfere with many aspects of medical care. The inclusion of a screening in an ordinary GP consultation, would detect any early emotional and behavioral disorders, such that any subsequent hospitalization

should benefit from these information. Availability of this information to physician would enhance the efficiency of any specific treatment in the context of hospitalization.

Information available in the literature emphasizes the need to use multiple sources during the assessment process (Friedman-Hill, Wagman, Gex, Pine, Leibenluft, & Ungerleider, 2010; Sikora, Hall, Hartley, Gerrard-Morris, & CAGL, 2008). According to this, our research has suggested the use of tools that follow this multi-level approach, requesting information both from parents and from teachers. Aside from this multi-level in this study were used only instruments whose validity and fidelity were confirmed in a series of studies published in peer reviewed journals.

Research results indicate a high rate of various types of disorders, evidenced by high scores, even in the clinical range, of a significant percentage of survey participants. The most significant current problem appears to be the emotional disorders reaching a prevalence of 2.27 - 21.2%, in average $m = 12.14$ and anxiety disorders with values between 5.5 - 24%, in average $m = 12.02\%$.

Using a rigorous research methodology the presented data support the importance of including the screening type assessment protocol in family medical care protocol. But, we consider that these results can be extended and conclusions can be refined by modifying the design in such a way that it will include information on the symptoms of the patient's, their acute or chronic nature. We also believe that beyond the emotional and behavioral disorders it would be also important to identify the cognitive-affective psychological mechanisms, involved in the process of medical healing.

BIBLIOGRAPHY

1. Achenbach TM. Manual for the Child Behavior Checklist Profile. Burlington, VT: University of Vermont Department of Psychiatry, 1991.
2. Achenbach TM Edelbrock CS. The classification of child psychopathology: A review and analysis of empirical efforts. *Psychological Bulletin* 1978; 85: 1275-1301.
3. Achenbach TM Rescorla LA. Manual for the ASEBA preschool forms & profiles. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families, 2000.
4. Achenbach TM Howell CT Quay HC Conners CK. National Survey of problems and competencies among 4 to 16 year olds. Monograph of the Society for Research in Child Development 1991; 56: 1-119.
5. Angold A Egger H Erkanli A Keeler G. Prevalence and comorbidity of psychiatric disorders in preschoolers attending a large pediatric service. Submitted manuscript 2004.
6. Chakrabarti S Fombonne E. Pervasive developmental disorders in preschool children: Confirmation of high prevalence. *American Journal of Psychiatry* 2005; 162(6): 1133-1141.
7. Crijnen AAM Achenbach TM Verhulst FC. Problems reported by parents of children in multiple cultures: The Child Behavior Checklist syndrome constructs. *American Journal of Psychiatry* 1999; 156: 569-574.
8. Earls F. Application of DSM-III in an epidemiological study of preschool children. *American Journal of Psychiatry* 1982; 139: 242-243.
9. Elliot SN Busse RT Gresham FM. Behavior rating scales: Issues of use and development. *School Psychology Review* 1993; 22(2): 313-321.
10. Fombonne E. The prevalence of autism. *Journal of the American Medical Association* 2003; 289 (1): 87-89.
11. Frenzt C Gresham FM Elliott SN. Popular, controversial, neglected, and rejected adolescents: Contrasts of social competence and achievement differences. *Journal of School Psychology* 1991; 29: 109-120.
12. Friedman-Hill SR Wagman MR GSE Pine DS Leibenluft E Ungerleider LG. What does distractibility in ADHD reveal about mechanisms for top-down attentional control? *Cognition* 2010; 115 (1): 93-103.
13. Gresham FM Elliott SN. Social skills deficits as a primary learning disability. *Journal of Learning Disabilities* 1989; 22: 120-124.
14. Ivanova M Dobrea A Dopfner M Erol et al. Testing the 8-symptom structure of the child behavior checklist in 30 societies. *Journal of Clinical Child And Adolescent Psychology* 2007; 36 (3): 405 - 417.
15. Keenan K Wakschlag LS. More than the terrible twos: The nature and severity of behavior problems in clinic referred preschool children. *Journal of Abnormal Child Psychology* 2000; 28: 33-46.
16. McConaughy SH Skiba RJ. Comorbidity of externalizing and internalizing problems. *School Psychology Review* 1993; 22: 421-436.
17. Rescorla LA et al. Behavioral and emotional problems reported by parents of children ages 6 to 16 in 31 societies. *Journal of Emotional and Behavioral Disorders* 2007; 15: 130-142.
18. Sikora DM Hall TA Hartley SL Gerrard-Morris AE Cagle S. Does parent report of behavior differ across ADOS-G classifications: Analysis of scores from the CBCL and GARS. *Journal of Autism and Developmental Disorders* 2008; 38: 440-448.
19. Voorde S Van D Roeyers H Wiersema JR. Error monitoring in children with ADHD or reading disorder: An event-related potential study *Biological Psychology* 2010; 84: 2, 176-185.
20. Wallon H. The psychological development of the child. *Journal of the American Academy of Child and Adolescent Psychiatry* 1965; 40: 44-51.