

## 92 - EVIDENCES OF TDAH IN GIRLS IN MACAPÁ

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## INTRODUCTION

This study is presented with the objective of investigating groups of children, considering the females, with evidences of risk for AHDU, at schools in Macapá. This study was accomplished in 4 schools of Fundamental Learning, with female children, between 7 and 10 years of age, regularly booked at the municipal schools of Amapá.

The Attention and Hyperactivity Deficit Upset – AHDU is a neurological disturbance which affects approximately 3 to 7% of children in school age, and it is considered to be the most common psychiatric disturbance among children and adolescents. The AHDU appears as a standard of inattention and/or hyper-activity-impulsiveness and it is more frequent and serious than we can observe.

The Attention and Hyperactivity Deficit Upset – AHDU is reflected in the child and adolescent's life leading to prejudices in several areas, like the adaptation of academic environment, interpersonal relationships and school performance (ARNOLD E JENSEN, 1995; BARKLEY, 1996).

In the Handbook of Diagnosis and Statistics of Mental Upsets, or DSM-IV, the improvement in the way of thinking over the Attention Deficit Upset is represented. In this handbook, there are criteria that qualify the patient of Attention Deficit Upset.

Based on these references, this study proposes to investigate the Attention and Hyperactivity Deficit Upset in school children in Macapá, using Global Criteria of DSM IV, an instrument that will help detect evidences of risk in the Attention and Hyperactivity Deficit Upset.

## 2. REVIEW OF LITERATURE

For Kaplan (2002, p.989), AHDU is "characterized by a weak and inappropriate lack of attention, in evolutive terms or aspects of hyperactivity and impulsiveness or both, inappropriate for children".

According to some authors, "the AHDU is currently understood as an neurobiological base upset, and the susceptibility to it seems to be determined by multiple genes of small effect (RODHE 2004, p.127 apud CASTELLANOS and TANNOCK, 2002).

The researched literature indicate as the most frequent co-morbidities that follow AHDU the following: the anxiety and depression, that is, 50% of children with AHDU also present behavior problems, like aggressiveness, lies, steals, behavior of opposition or challenge to the rules and request of adults (BENCZIK, 2000, p. 15).

The Attention and Hyperactivity Deficit Upset is more frequent among males. The rates male-female according to Kaplan et AL 2 can vary from 3:1 to 5:1.

Thus, according to DSM IV - Handbook of Diagnosis and Statistics of Mental Upsets, the subtypes of AHDU are:

▶ Attention and Hyperactivity Deficit Upset, Combined Type. Most of the children and adolescents with AHDU belong to the Combined type.

▶ Attention and Hyperactivity Deficit Upset, Mostly Inattentive Type. The hyperactivity can be an important characteristic in many cases, whereas for others are simply inattention.

▶ Attention and Hyperactivity Deficit Upset, Mostly Hyperactive-Impulsive Type. The inattention can be a... The Attention and Hyperactivity Deficit Upset changes family life and the interaction of children with the world around them. Children between 5 and 10 years of age, are found to be in a transition concerning locomotor characteristics and in the way of leading life.

The reason for this smaller proportion of girls would have a relationship with the fact that they have less co-morbidity with disruptive upsets, they get less attention at home and at school and, therefore, are hardly ever taken to treatment.

## 3. MATERIAL AND METHOD

This research is characterized as descriptive, and quantitative analysis. The sampling universe was formed by teachers and children's parents of female children in school life between 07 and 10 years of age, inserted in public schools in Macapá-AP.

The research was carried out in Macapá, in 4 municipal schools. A sample of 342 female children between 7 and 10 years was studied, according to the parents' and teachers' perceptions. The tool used for collection of data was the evaluation scale with the Criteria of DSM-IV for the diagnosis of AHDU.

The Handbook of Diagnosis and Statistics of Mental Upsets – DSM IV contains a questionnaire with 18 subjective closed questions, which must be completed by the teachers and the children's parents. The D SM-IV uses dictomic answers (yes/no).

For the analysis of the data, a distribution of frequency for qualitative variables was used. Ki-square test was used to compare the qualitative variables, and using the BioEstat 5.0 statistic package of Ayres (2007) for the treatment of data which were presented as tables.

The project was approved by the Committee of Ethics in Researches of the Institute for Scientific and Technological Researches of Amapá, whose Report was recorded under number 05/2008.

## 4. RESULTS AND DISCUSSION

Table 1 - Distribution of Frequency and Ki-square for tools of evaluation answered and non-answered according to the school and the total.

School	Total Children	of	Answered Tools	Non-answered Tools	$\chi^2$	P	
A	160		132 (82,5%)	28 (17,5%)	66.31	<0.01*	
B	102		60 (58,8%)	42 (41,2%)	2.83	0.09	
C	160		126 (78,8%)	34 (21,3%)	51.76	<0.01*	
D	64		24 (37,5%)	40 (62,5%)	3.52	0.06	
Total	486		342 (70,4%)	144 (29,6%)	79.85	<0.01*	
$\chi^2$	P	54.74	<0.01*	96.32	<0.01*	3.33	0.34

Table 1 shows the relationship between the number of tools sent to the parents and teachers of schools investigated and the number of answered tools by those. What we can see is that there is a significantly larger number of tools that were answered compared to those which were not answered. Schools A and C presented this behavior, whereas schools B and D didn't show statistical difference in this relationship, although school B have had more answered than non-answered, whereas school D had more non-answered than answered tools.

When we compared the answered and the non-answered tools among the schools, it could be found that among the

answered ones there was a significant difference between school A and C compared to schools B and D. One can still see that the number of tools sent was statistically different among the schools and significantly higher in schools A and C than in schools B and D.

Table 2 - Distribution of Frequency and Ki-square according to the age and the type of AHDU.

TDAH	Total de Crianças	7 a 8 anos	9 a 10 anos	X <sup>2</sup>	P				
Total	42	12 (28,6%)	30 (71,4%)	6,88	0,01*				
Desatento	22 (52,4%)	7 (31,8%)	15 (68,2%)	2,23	0,14				
Hiperativo	2 (4,8%)	1 (50,0%)	1 (50,0%)	0,00	1,00				
Combinado	18 (42,9%)	4 (22,2%)	14 (77,8%)	4,50	0,03*				
X <sup>2</sup>	p	16,00	<0,01*	4,90	0,06	12,20	<0,01*	---	---

In Table 2, we can easily see the occurrence of 42 diagnosis of hyperactivity among children investigated at four schools of research. When these children were divided into two great distinct age groups, it was verified that among the children with age between 9 and 10 there was a more significant number diagnosed subjects with AHDU. It can still be checked that only for AHDU Impulsive type there was a statistical difference among the age groups. It was also seen that the children between 9 and 10 years of age presented a more significant number of "impulsive" subjects than among children at 7 and 8 years of age.

There was a more significant number of subjects classified as inattentive and impulsive than hyperactives in the schools studied. It was also noticed that it is the age range between 9 and 10 where there was a significantly higher number of children with diagnosis of inattentive and impulsive than hyperactive.

Considering the assumptions of KAPLAN et AL 2, this proportion can change from 3:1 to 5:1. According to CANTWELL 7 and BIEDERMAN et AL 8, the girls would be sub-diagnosed because they have few symptoms of aggressiveness/impulsiveness and low rates of behavior upset, this way, the diagnosed age tends to be more advanced compared to the boys. This way, the results of this study ensure these assumptions, showing the set of evidences of AHDU in school girls in Macapá.

Table 3 - Distribution of Frequency and Ki-square according to the answers of parents and teachers concerning the signs of behavior evidences of AHDU in girls according to DSM IV criteria.

SIGNS	NO	YES	X <sup>2</sup>	P
A	7 (16,7%)	35 (83,3%)	17,36	<0,01*
B	5 (11,9%)	37 (88,1%)	22,88	<0,01*
C	10 (23,8%)	32 (76,2%)	10,50	<0,01*
D	14 (33,3%)	28 (66,7%)	4,02	0,04*
E	14 (33,3%)	28 (66,7%)	4,02	0,04*
F	27 (64,3%)	15 (35,7%)	2,88	0,09
G	17 (40,5%)	25 (59,5%)	1,17	0,28
H	3 (7,1%)	39 (92,9%)	29,17	<0,01*
I	7 (16,7%)	35 (83,3%)	17,36	<0,01*
J	20 (47,6%)	22 (52,4%)	0,02	0,88
L	27 (64,3%)	15 (35,7%)	2,88	0,09
M	25 (59,5%)	17 (40,5%)	1,17	0,28
N	24 (57,1%)	18 (42,9%)	0,60	0,44
O	22 (52,4%)	20 (47,6%)	0,02	0,88
P	27 (64,3%)	15 (35,7%)	2,88	0,09
Q	32 (76,2%)	10 (23,8%)	10,50	<0,01*
R	33 (78,6%)	9 (21,4%)	12,60	<0,01*
S	32 (76,2%)	10 (23,8%)	10,50	<0,01*

Table 3 shows the negative and positive relationship in the diagnosis of parents and teachers of children evaluated by AHDU, according to each one of the 18 questions used in the evaluation. What can be seen is that for questions A, B, C, D, E, H, and I there was a significantly higher number of positive answers than negative ones, different from the ones observed in questions Q, R and S, in which it was verified a significantly higher number of negative answers than positive ones. For the other questions F, G, J, L, M, N, O and P there was no statistical difference among the positive and negative answers.

Table 4 – Distribution of Frequency of answers from parents and teachers, starting from the criteria table for the diagnosis of AHDU, according to DSM IV, applied to girls of municipal schools.

Table 4 compares the answers given by the parents and teachers, according to the age group of the children evaluated, 7 to 8 and 9 to 10 years of age. In it, one can find out that there was significant difference in the number of children with AHDU diagnosis among the age groups both in the evaluation of parents and teachers, without statistical difference concerning the number of children with positive diagnosis among parents and teachers of each age group. It was verified that the number of children with diagnosis of AHDU in the group 9 to 10 of age is significantly higher than in the group of 7 to 8 years of age, in the evaluation of parents and teachers.

It is understood, this way, that the behavior changes of the child depend on his reality, on the conjunction of environmental and family factors and the child himself within his process of development.

The first observations, more frequently, are made within the school, by the teachers, who observe changes on the behavior of agitated children or inattentive children. This is observed when compared to the behavior of other children in class during their social-educational activities provided by the school.

The parents are not always able to see and accept the behavior differences of their children. The non-acceptance of the parents concerning possible changes of their children, hinders the diagnosis and, as a consequence, the treatment itself, affecting the quality of the child's development.

## 5. CONCLUSION

The proposal of this study was to investigate evidences of AHDU in school girls of 4 schools in Macapá. This way, the statistical studies revealed that among 42 children there was a significantly higher number of subjects classified as inattentive (52,4%) and as combined (42,9%) than hyperactives (4,8%) at the schools under investigation.

It was also noticed that in the age group of 9 to 10 there was a significantly higher number of children with diagnosis as inattentive (68,2%) and as combined (77%) than as hyperactive (50,0%).

It is important to highlight that the teachers identified a larger number of children with evidences than parents. At school, the teachers can notice the changes of behavior much more than the parents do, and they regard them as inattentive, where as the parents identified less evidences. These not always can notice and accept the behavior differences of their children, in a combination of protection and knowledge, deny the possible changes of the children.

We conclude that the lack of knowledge of parents and teachers and the non-acceptance by the parents of possible changes of their children tend to affect and hinder the diagnosis and, as a consequence, the treatment, affecting the quality of the child's development. And still, there is an awareness that the use of only this tool of evaluation in this research doesn't allow us to have more generalizations concerning the data obtained. Nevertheless, they were enough to analyze the variation of the collected data.

**KEYWORDS:** AHDU, DSM IV, teachers, parents

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### EVIDENCES OF TDAH IN GIRLS IN MACAPÁ

#### ABSTRACT

Disorder and Attention Deficit Hyperactivity Disorder-ADHD is a persistent pattern of inattention and / or hyperactivity-impulsivity more frequent and severe than that typically observed in children of an equivalent level of development. Objective To investigate evidence of ADHD in females in the band in elementary school, the city of Macapá. . Material and Methods This study was conducted in four public schools, selected randomly, in a universe of 342 children, female, aged 7 to 10 years. This study used the DSM IV diagnostic criteria applied to teachers and parents of children. For data analysis we used the frequency distribution for the variables qualitativas. Teste Chi square test to compare qualitative variables, and using the statistical package BioEstat 5.0, Ayres (2007) for the treatment of the data that were presented in the form of tables. Results you can see the occurrence of 42 framed in the diagnostic criteria of ADHD among the children investigated in the four schools of research, 71.4% in the age group 9 to 10 years still can be seen that only the type of ADHD, Predominantly combination is that no statistical difference between age groups, corresponding to 77.8%, followed by 68.2% of the Predominantly Inattentive type. Conclusion The first observations were made more frequently in the school environment by teachers who realize the difficulties in social interaction of the child. Parents do not always able to understand and accept the differences in behavior of their daughters. **KEYWORDS:** TDAH, DSM IV, professores, pais

### EVIDENCES DE TDAH CHEZ LE FILLES DANS LA MUNICIPALITÉ DE MACAPÁ

#### RESUMÉ :

Le Désordre du déficit de l'Attention et de l'Hyperactivité TDAH consiste en un modèle persistant d'inattention et/ou l'hyperactivité l'impulsivité sont plus fréquente et grave de celle typiquement observée chez les enfants du niveau équivalent au développement. Objectif : Enquêter les évidences de TDAH chez les enfants du sexe féminin dans les écoles de l'enseignement fondamentale, de la Municipalité de Macapá. Matériel et Méthode Cette étude fût réalisée dans 4 écoles municipales sélectionnées aléatoirement, parmi 342 enfants du sexe féminin entre 7 à 10 ans. Cette recherche a utilisé les Critères de diagnostic du DSM IV Appliqués avec les professeurs et les parents des enfants. Pour l'analyse des données on a utilisé la distribution des fréquences par les variables qualitatives. Le Test du Qui carré pour comparer les variétés qualitatives, étant utilisé l'ensemble statistique BioEstat 5.0 de Ayres (2007) pour Le traitement des données qui furent présentées en forme de tableau. Résultats : On peut observer l'apparition de 42 inscrits dans les critères de diagnostic de TDAH entre les enfants de l'enquête faite dans les quatre écoles de la recherche, 71,4% du groupe entre 9 à 10 ans. On peut encore constaté que seulement pour le TDAH du type prédominant et assorti on a vérifié la différence statistique entre les groupes correspondant à 77,8%, suivie par 68,2% du type essentiellement inattentif. Conclusion: les premières observations, le plus souvent ont été faites dans le milieu scolaire par des enseignants qui comprennent les difficultés dans les interactions sociales de l'enfant. Les parents ne sont pas toujours en mesure de percevoir et d'accepter les différences dans le comportement de leurs filles. **MOTS CLÉ :** TDAH, DSM IV, professeurs, parents

### EVIDENCIAS DE TDAH EN NIÑAS DE LA PROVINCIA DE MACAPÁ

#### RESUMEN:

El Transtorno de Déficit de Atención e Hiperactividad – TDAH, consiste en un padrón persistente de desatención y/o hiperactividad impulsiva, es más frecuente y grave de aquel típicamente observado en niños de nivel equivalente de desarrollo. Objetivo Investigar evidencias de TDAH en niñas de primaria, de la provincia de Macapá. Material y Método Este estudio fue realizado en 4 escuelas provinciales, escogidas aleatoriamente, en un universo de 342 niñas entre 7 a 10 años de edad. Esta pesquisa utilizó los Criterios diagnósticos del DSM IV, aplicados con profesores y padres de las niñas. Para analizar estos datos se utilizó la distribución de frecuencia para las variables cualitativas. Examen de Qui cuadrado para comparar las variables cualitativas, usando el paquete estadístico BioEstat 5,0 de Ayres (2007) para el tratamiento de los datos que fueron presentados en forma de tablas. Resultados se puede observar 42 participantes en los criterios diagnósticos de TDAH entre las niñas investigadas en las 4 escuelas de la pesquisa; 71,4% en el grupo de niñas de 9 a 10 años se puede constatar que solamente para el TDAH del tipo Predominante combinado y se verificó una diferencia estadística entre los grupos, correspondiendo al 77,8%, seguido por 68,2% del tipo Predominante desatento. Conclusión Las primeras observaciones, con mayor frecuencia fueron hechas en la escuela, por los profesores, que perciben las dificultades en la interacción social de las niñas. Los padres, no siempre consiguen percibir y aceptar las diferencias comportamentales de sus hijas. **PALABRAS LLAVE:** TDAH, DSMIV, Profesores, Padres

### EVIDÊNCIAS DE TDAH EM MENINAS NO MUNICÍPIO DE MACAPÁ

#### RESUMO:

O Transtorno de Déficit de Atenção e Hiperatividade -TDAH, consiste num padrão persistente de desatenção e/ou hiperatividade-impulsividade, mais freqüente e grave do que aquele tipicamente observado em crianças de nível equivalente de desenvolvimento. Objetivo Investigar evidências de TDAH em crianças do sexo feminino na faixa em escola de ensino fundamental, do município de Macapá. Material e Método Este estudo foi realizado em 4 escolas municipais, selecionadas aleatoriamente, em um universo de 342 crianças, do sexo feminino, na faixa etária de 7 à 10 anos. Esta pesquisa utilizou os Critérios diagnósticos do DSM IV, aplicados com professores e pais de crianças. Para a análise dos dados utilizou-se distribuição de freqüência para as variáveis qualitativas. Teste do Qui quadrado para comparar as variáveis qualitativas, sendo usado o pacote estatístico BioEstat 5,0, de Ayres (2007) para o tratamento dos dados que foram apresentados na forma de tabelas. Resultados se pode observar a ocorrência de 42 enquadrados nos critérios diagnósticos de TDAH entre as crianças investigadas nas quatro escolas da pesquisa; 71,4% no grupo etário de 9 a 10 anos Ainda se pode constatar que somente para o TDAH do tipo Predominantemente combinado é que se verificou diferença estatística entre os grupos etários, correspondendo a 77,8%, seguido por 68,2% do tipo Predominantemente Desatento. Conclusão As primeiras observações, com maior freqüência foram feitas no ambiente da escola, pelos professores, que percebem as dificuldades na interação social da criança. Os pais, nem sempre, conseguem perceber e aceitar as diferenças comportamentais de suas filhas. **PALAVRAS-CHAVE:** TDAH, DSM IV, professores, pais..