International Conference on Education and Educational Psychology (ICEEPSY 2011)

SCHOOL CONTEXT: FAMILY SATISFACTION AND SOCIAL COMPETENCE OF CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER "ADHD" *

García, R^a^, Jara, P^a^, Sánchez, D^a^

^a^ Universidad Jaume I, Facultad de Ciencias Humanas & Sociales. Department of Developmental, Educational and Social Psychology and Methodology Av. de Vicent Sos Baynat, s/n. Castellón de la Plana 12071 (ESPAÑA)

Abstract

* Work done under the project frame PSI2008 06121/PSIC. Funding agency Ministry of Science and Innovation.

The aim of this study is, on the one hand, to analyze the perception and relationship of families of 21 children with ADHD and 28 without ADHD (8 to 12 years) with professional services and educators. One the other hand, it examines the teachers’ perceptions of the social competence of children with ADHD. The results show significant differences in the assessment and satisfaction of families of children with ADHD vs. Non-ADHD in relation to professional educators. The results of the second test show that teachers perceive significant differences in social skills among children with ADHD and children without ADHD.

© 2011 Published by Elsevier Ltd. Open access under CC BY-NC-ND license. Selection and/or peer-review under responsibility of Dr Zafer Bekirogullari.

Keywords: attention deficit hyperactivity disorder (ADHD); family perception; social skills; prosocial behavior; peer problems.

1. INTRODUCTION

Several studies indicate that a high percentage of children with Attention Deficit Hyperactivity Disorder (ADHD) have a poor school performance that affects both their educational achievement and their academic performance and that persists into adolescence. Moreover, according to Jensen et al. (2004), children with ADHD need four or five
times more psychoeducational care than children without ADHD. Approximately 70% of these children, according to Rajeev and Riaz (2003), need special education and this is a concern and a challenge for parents, teachers and for the School Counseling Services.

Parental involvement with education professionals and academic activities is also essential for the school progress of children and, specially, of children with ADHD. In fact, some models of parental involvement in school proposed (Eccles & Harold, 1996, Epstein, 1995; Grolnick & Slowiaczek 1994) coincide in highlighting three dimensions as an important point, namely: 1) parent-teacher contact to facilitate monitoring of school progress and homework of children, 2) parental involvement in school activities, and 3) direct involvement of parents with their children at home to provide intellectual stimulation and achieve academic success. Although there are some researches on parental perceptions of educational services and parental satisfaction with services and educational support in families of children with developmental difficulties (Álvarez, García, Robledo & Díez, 2008; Robledo & García, 2007; Summers, Hoffman, Marquis, Turnbull & Poston, 2005) there are few studies on the estimates of parents of children with ADHD on parental involvement and educational services in Spain. The previous references have focused on interventions to improve homework and they have neglected the analysis of the cognitions of parents of children with ADHD on the degree of satisfaction and support of Educational Services (Rogers, Wiener, Marton & Tannock, 2009).

Rogers et al., (2009) examined the involvement of parents in their children's learning and considered the psychological and contextual factors that influenced their participation. To conduct the study, they compared families of children with ADHD and families of children without ADHD. The results showed that parents of children with ADHD, unlike the families of children without ADHD, are less involved in their children's education and show less cooperation at home. These parents reported that, despite having an adequate knowledge of the typical development of children and their abilities, they felt less prepared to help their children with their academic needs. They also said that they had experienced a lack in the professional and educational support given to their children.

In Spain, Robledo, García Diez, Rodriguez & Martinez (2008) conducted a study with the purpose of determining whether there are differences between families of children with Learning Disabilities (LD), families of children with ADHD and families of children without LD in different dimensions (i.e., satisfaction with educational services, involvement in education, family atmosphere, ...). The results indicate that families of children with ADHD and LD are the ones that give more academic encouragement and support to their children at home. In addition, families of children with ADHD are significantly more involved than the other two groups of families in school issues.

On the other hand, children with ADHD, not only have academic problems, they also experience difficulties in their relationships with peers which persist into adulthood. In fact, several studies have documented that approximately 70% of children with ADHD experience rejection by peers (Barkley, 1990; Garcia, Presentation, Siegenthaler & Miranda, 2006). In addition, children with ADHD are more intrusive and initiate more social interactions than children without ADHD, but despite their interest in having contact with others, they often find difficult to adapt their behavior to social situations and some of them have aggressive-negative behavior (Nijmeijer, Minderaa, Buitelaar et al., 2008). The fact that children with ADHD have problems in school also affects teachers to the point that these professionals report feeling more stressed (Ohan, Visser, Strain & Allen, 2011).

An aspect that is also linked to having a good relationship with others is prosocial behavior. Prosocial behaviors are the acts performed voluntarily to help or benefit others, such as sharing, supporting and protecting (Pakaslahti, Keltikangas-Järvinen & Karjalainen, 2002; Sanchez-Queija, Oliva & Parra, 2006). In this line, Miranda, Presentation & Lopez (1994) studied the strategies for peer interaction in groups of hyperactive and normal children. Their work showed that the social strategies of the group of students with hyperactivity regarding prosocial behaviors (eg, helping a younger child) did not differ from their peers. By contrast, hyperactive children had lower social knowledge to establish relationships and resolve conflicts with peers.
In a recent study, Zavadenko, Lebedeva, Schasnaya, Zavadenko, Zlobina & Semenova (2011) have attempted to evaluate the Strengths and Difficulties Questionnaire "SDQ" in parents and teachers of children with ADHD and children without ADHD between the ages of 7 and 11. According to the results of both groups, children with ADHD have significant emotional disorders, behavioral problems, difficulties to interact with peers and poor performance on social behavior. The authors note that the difficulties of children with ADHD is not limited exclusively to the core symptoms of the disorder and that information from parents and teachers is of great importance for the assessment of ADHD.

In general, having difficulties in the relationships with peers is a common problem for children with ADHD. But many researches on social functioning have been carried out from peer assessment and from the assessment of the child himself. However, few studies have examined the social competence of children with ADHD from the perception of teachers. Context is key to identify and detect early the deficiencies in social relationships that teachers have more opportunities to observe the child in the classroom or the playground, places where there is more social interaction, as well as more opportunities for social friction.

Therefore, the aim of this study in the first place is to analyze how families of children with ADHD perceive the support that they receive from educational services and professionals. Secondly, it assesses the perceptions of teachers regarding the social functioning of children with ADHD. Besides, it also studies whether there are differences in social functioning depending on the education level of children.

2.METHOD

2.1. Participants
Participants in this study are parents and teachers of children between 8 and 12 years with / without ADHD who attend from the third course of compulsory primary education to the sixth course of compulsory primary education. To accomplish the first objective, a sample of 49 volunteer families of the province of Castellón (fathers / mothers of children with ADHD = 21 and parents / mothers of non-ADHD = 28) was selected. In order to develop the second objective 18 tutors of children with ADHD and 26 tutors of children without ADHD of the province of Castellón were also needed.

All children in families of children with ADHD had a previous clinical diagnosis of ADHD according to DSM-IV. In addition, 95% of children were taking stimulant medication at the time of the study.

2.2. Measures
To analyze the perception, support and involvement of families of children with ADHD and without ADHD of the educational and career services, FAOP-SE subscale of the instrument for assessing needs of families of children with developmental difficulties was applied (FAOP; Robledo & Garcia, 2007). It is an instrument that assesses the needs of families of children with developmental difficulties. Created from the combination of adaptation and questionnaires, it is individually applied to one of the parents of children and adolescents between 3 and 15 years. The instrument has a validity and reliability to .92.

The scale "FAOP-SE" Opinion-evaluated family satisfaction with services and education professionals consists of 22 items, divided into two subscales of 10 items. The first subscale refers to the relationship of the professional with the student (e.g. They are available for students during school hours) and the second subscale refers to the relationship of the professional with the family (e.g. I listen without judging your child or family). From the scores on these subscales, we obtain a total score of parental satisfaction with the Educational Services.

To assess prosocial behavior and peer problems, subscales of Strengths and Difficulties Questionnaire "SDQ-CAS" (Goodman, 2001) were applied to teachers. The instrument consists of five subscales and is designed to assess children's behavior from the perspective of parents, teachers and children. Of the five subscales we selected two: 1) problems with peers and 2) prosocial behavior. The problem with peers subscale consists of 5 items (e.g. "He/She is rather solitary and prefers to play alone"). This subscale is scored with a 1 "Somewhat true", but the scores for "not
true" and "absolutely certain" vary depending on the item. High scores indicate problems with peers. Regarding the prosocial behavior subscale, it also consists of 5 items (e.g. "He/She takes into account the feelings of others"), the items of this subscale are rated with 0 points "Not true", 1 point "Somewhat true" and 2 points "Absolutely true ". High scores indicate good prosocial behavior. The total scores that can be obtained on each scale range from 0 to 10.

2.3. Procedure

The cooperation of the Regional Directorate of Education Castellón and Counseling Services of the Province of Castellón was of great help to collect the sample of families of children with ADHD. It had a first contact with the parents where they were informed of the purpose of the study. Once they agreed to participate, an appointment was arranged at the University Jaume I of Castellón to complete the questionnaire. On the other hand, we also contacted the children's teachers to fill the Strengths and Difficulties Questionnaire "SDQ-CAS" (Goodman, 2001). Two teachers of children with ADHD did not complete the questionnaire. In the group of families of children without ADHD we asked for the voluntary cooperation of families and their teachers-tutors. Thus, several students of Masters in Family Intervention and Mediation at the University Jaume I (Castellón) contacted and gave the questionnaires to the participants. From the group of families of children without ADHD who chose to participate in the study, 28 families were selected randomly as well as the respective teachers of their children.

3. RESULTS

The data from the instruments described above, were entered into SPSS 19.0. Before proceeding to tests that are best suited to compare the differences between families of children with ADHD and families of children without ADHD, it was checked whether there were differences between the groups regarding parental age (t = .93, p = .36) and educational level of parents (father's level of study (F = .15, p = .69) and mother's educational level (F = 1.48, p = .23). Significant differences did not appear in all variables.

Considering the first objective, the families of children with ADHD and children without ADHD children have in general a good relationship with the educational professionals, both in the attention they give to their children and in the attention they give to them. Moreover, parental satisfaction with educational services is higher in families of children with ADHD (see Table 1). Significant differences appear more specifically in the variables "professional-child relationship" (t = 2.11, p = .04), "Professional-parent relationship" (t = 2.01, p = .04) and "Total Parental Satisfaction with Educational Services "(t = 2.17, p = .03).

Table 1. Perception of Satisfaction and Support Services and Professional education in families of children with ADHD vs. Families of children without ADHD.

<table>
<thead>
<tr>
<th></th>
<th>Families of children with ADHD (N= 21)</th>
<th>Families of children without ADHD (N=28)</th>
<th>t</th>
<th>p</th>
<th>η²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Professional-Child Relationship</td>
<td>43.43</td>
<td>6.72</td>
<td>39.82</td>
<td>5.22</td>
<td>2.11</td>
</tr>
<tr>
<td>Professional-Parents</td>
<td>48.00</td>
<td>5.49</td>
<td>44.79</td>
<td>5.54</td>
<td>2.01</td>
</tr>
<tr>
<td>Parental Educational Services</td>
<td>91.43</td>
<td>11.31</td>
<td>84.68</td>
<td>10.30</td>
<td>2.17</td>
</tr>
</tbody>
</table>

Note: Data are presented as M: Mean; SD: Standard Deviation; ADHD: Attention Deficit/Hyperactivity Disorder

* (Eta-squared statistical) estimates the effect size. The rule of Cohen (1988) assigned = .01 to .06 (small effect), 06-14 (medium effect), > .14 (large effect).
Considering the second goal that values the differences in social functioning among children with / without ADHD, we see that the averages on the perception of teachers in peer problems variable is higher in children with ADHD (M= 3.50) than in children without ADHD (M= 2.25). With regard to prosocial behavior, teachers perceive that children with ADHD (M= 5.10) are less prosocial than children without ADHD (M= 7.50). However, it should be noted that both the average of the peer problems, and the average of prosocial behavior are within the limits of non-problematic. More specifically, teachers perceived significantly (t = 2.17, p = .03) more problems with peers in children with ADHD than in children without ADHD (Cohen’s d= .65). With regard to prosocial behavior, teachers valued significantly (t = - 2.02, p = .04) less prosocial behavior in children with ADHD compared with children without ADHD (Cohen’s d= -.60).

We also analyzed the problems with peers and prosocial behavior of children with ADHD and children without ADHD from the evaluation of teachers, taking into account the educational level they have. Twenty-two children (ADHD = 8 and non-ADHD = 14) form the sample of children in upper secondary education (3rd - 4th grade) and twenty-two children (ADHD = 10 and non-ADHD = 12) of tertiary education (5th & 6th grade). Regarding the variable problems with peers (see, figure.1) no significant differences appear between ADHD and non-ADHD children in upper secondary education (t = 1.36, p = .18) or tertiary education (t = 1.57, p = .13). Regarding the assessment of teachers on prosocial behavior (see, figure.2) of children with ADHD and without ADHD, in upper secondary education there are not significant differences (t = -0.29, p = .77), whereas in tertiary education some appear significant differences (t = -2.18, p = .04) (Cohen’s d= -.92).

**Figure 1. Comparison of the averages of children with ADHD and without ADHD in "Problems with the Peers" taking into account the educational level.**

![Figure 1](image1)

**Figure 2. Comparison of the averages of children with ADHD and without ADHD in "Prosocial Behavior" taking into account the educational level.**

![Figure 2](image2)

4. CONCLUSION

Considering the first objective, the results show significant differences between families of children with ADHD and families of children without ADHD regarding satisfaction with support services and educational professionals. The average trend indicates that the satisfaction and quality of educational services received by families of children
with ADHD is higher than in families of children without ADHD. These results differ from those obtained by Rogers, Wiener, Marton & Tannock (2009), which indicated that families of children with ADHD value the school as an unfriendly place and are required to put more participation and effort than other parents, which adds extra time to the relationship between parents and teachers and often creates tense and irritable situations. It is possible that these differences in our study are due in part to the fact that most of the children with ADHD are receiving pharmacological treatment 95% compared with 49% in the study of Rogers et al. (2009). In addition, in the study of Rogers et al. (2009) the half of children with ADHD had other comorbid disorders, which had a greater clinical severity and affected different areas of family, social and academic life.

Regarding the second objective, the assessment of teachers of social functioning of children with ADHD vs. children without ADHD, the results indicate that the children with ADHD show more problems with peers than children without ADHD. Although the averages do not exceed the limits of non-problematic and the educational level analysis revealed no significant differences between children with ADHD and children without ADHD, these results are in line with those obtained by Zavadenko et al. (2011) & Iizuka et al. (2010), which also indicate that children with ADHD have difficulties to interact with peers. As these authors emphasize, we think that other variables other than the core symptoms of the disorder should be valued because they may uncover potential problems with peers and limitations in their prosocial behavior.

In the second place, teachers appreciate significantly less prosocial behavior in children with ADHD compared with children without ADHD. More specifically, they found significant differences between children with ADHD and children without ADHD in tertiary education. However, the differences do not exceed the limits of non-problematic. These results are similar to the ones of the studies conducted by Hay, Hudson & Liang (2010) & Zavadenko et al. (2011). Hudson & Liang (2010) found out that prosocial behavior in school, as rated by teachers, is less if the children show clinically significant symptoms of ADHD. However, in studies using an assessment of the children themselves there are not significant differences in the analysis of prosocial behaviors of children with ADHD and their peers (Miranda, Presentation & Lopez, 1994; Milch-Reich et al., 1999). It is possible that children with ADHD have difficulties in implementing prosocial behavior in an effective way, but they have good social knowledge of prosocial responses. Although the opinion of children themselves on their social skills is important, they may provide biased perception of their abilities. Therefore, the assessment made by teachers is highly relevant since they are in daily contact with children in many relevant social situations. Comparison with other children in the classroom and at recess helps achieve different measures of prosocial items and also provides a more objective perception of social functioning.

In general, the results show a good assessment of the parents regarding parental satisfaction with services and educational professionals. As was previously mentioned, it may be because the vast majority of children in our sample were medicated and, as Goldman et al. (1998) indicated, pharmacological intervention improves classroom behavior and academic performance by promoting greater interaction between teachers and family. On the other hand, the results on social functioning of children with ADHD show the need to evaluate different development contexts (family, school, peers and children themselves). Providing as much information as possible about the various social interactions of children with ADHD brings to light the potential problems with peers and the limitations in their prosocial behavior. This information can help us to develop an intervention beyond the core symptoms of the disorder and improve social relationships, recognition of others, their social potential and even their quality of life.

It is important to note that the present study has several limitations. First, the results obtained with a small sample cannot be considered general. Besides, as we have already said, the vast majority of children with ADHD were receiving pharmacological treatment at the time of the study. Second, it should be noted that even though the SDQ-CAS (Goodman, 2001) presents a good reliability and validity, some items included in the subscale of prosocial behavior are difficult to observe by the teacher (e.g. He/She is considerate with the feelings of others) and thus the informant may make inferences about their relationship with the child. Finally, it is important to emphasize the need to collect information from parents, peers and the child to provide more information and quality of the various social interactions.
Acknowledgements

This study was partly supported by the project PS12008 06121/PSIC from Ministry of Science and Innovation of Spain. We would also like to thank the territorial Department of Education of Castellón for they cooperation, as well as the psycho-educational services of the schools and the schools in the province of Castellón (Spain). We gratefully the efforts of all teachers, parents and students who participated in this project.

REFERENCES


