

Difficulties and coping strategies of college students with ADHD symptoms

Clarissa Tochetto de Oliveira¹

Universidade Federal do Rio Grande do Sul, RS, Brazil

Ana Cristina Garcia Dias

Universidade Federal do Rio Grande do Sul, RS, Brazil

Abstract: This study aims at identifying the main difficulties freshmen with ADHD symptoms face in college and verify which coping styles are associated with higher scores of college adjustment. Participants were 28 college students. Data were gathered in classrooms with self-reported questionnaires. Difficulties mentioned by participants were submitted to content analysis. Linear correlations were also estimated (Pearson) between variables. Results suggest that the most frequent difficulties are the need for greater autonomy, concentration and reasoning, relationship with classmates, and the lack of information provided by majors. We also verified that certain coping strategies are associated with better college adjustment. The study concluded that knowing difficulties students with ADHD symptoms face and what strategies can contribute to their college adjustment may guide interventions for this population.

Keywords: ADHD; difficulties; coping style; college adjustment; college students.

DIFICULDADES E ESTRATÉGIAS DE ENFRENTAMENTO DE ESTUDANTES UNIVERSITÁRIOS COM SINTOMAS DO TDAH

Resumo: O objetivo deste estudo foi identificar as principais dificuldades encontradas por estudantes universitários com sintomas do TDAH no ingresso na universidade e verificar quais estratégias de enfrentamento estão associadas com uma melhor adaptação acadêmica. Participaram do estudo 28 estudantes universitários. Os dados foram coletados coletivamente em sala de aula por meio de questionários de autorrelato. As dificuldades relatadas pelos participantes foram submetidas à análise de conteúdo. Também foram estimadas correlações (Pearson) entre as variáveis. Os resultados sugerem que as dificuldades mais frequentes se referem à necessidade de maior autonomia, à concentração e raciocínio, à relação com colegas e à falta de informação por parte dos cursos. Verificou-se também que determinadas estratégias de enfrentamento estão associadas com melhor adaptação acadêmica. Conclui-se que o conhecimento das dificuldades encontradas e das estratégias que podem auxiliar os estudantes com sintomas do TDAH na adaptação acadêmica pode embasar intervenções específicas para esse público.

Palavras-chave: TDAH; dificuldades; estratégias de enfrentamento; adaptação acadêmica; estudantes universitários.

LAS ESTRATEGIAS DE AFRONTAMIENTO DE LOS ESTUDIANTES CON SÍNTOMAS DE TDAH PARA LA ADAPTACIÓN ACADÉMICA

¹ **Mailing address:** Clarissa Tochetto de Oliveira, Rua Ramiro Barcelos, 2600, sala 117. Rio Branco – Porto Alegre/RS, Brazil, CEP: 90035-003. *E-mail:* clarissa.tochetto@gmail.com

Resumen: El objetivo de este estudio es identificar las principales dificultades encontradas por estudiantes universitarios con síntomas de TDAH al ingresar a la universidad y verificar que estrategias de enfrentamiento están asociadas con una mejor adaptación académica. Participaron del estudio 28 universitarios. Los datos fueron recolectados colectivamente en el aula por medio de cuestionarios de auto relato. Dificultades relacionadas por los participantes fueran sometidas a análisis de contenido. También fueron estimadas correlaciones (Pearson) entre las variables. Los resultados sugieren que las dificultades más frecuentes dicen respecto a la necesidad de mayor autonomía, a la concentración y raciocinio, a la relación con compañeros y a la falta de información sobre las carreras. Se verificó también que algunas estrategias de enfrentamiento están asociadas con la mayor adaptación académica. Se concluye que el conocimiento de las dificultades encontradas y de las estrategias que pueden auxiliar a los estudiantes con síntomas de TDAH en la adaptación académica puede basar intervenciones específicas para ese público.

Palabras-clave: TDAH; dificultades; estrategias de enfrentamiento; adaptación académica; estudiantes universitarios.

Attention Deficit/Hyperactivity Disorder (ADHD) is a persistent pattern of inattention, hyperactivity, and impulsivity (APA, 2013). For a long time, ADHD was considered a disorder specific of childhood. However, people with this diagnosis continued to have symptoms throughout their lives. Recently, a significant number of researchers have focused on how symptoms manifest in adulthood and its consequences (Barkley, Murphy, & Fischer, 2010). Complaints of adults with ADHD refer to disorganization, poor ability to concentrate, forgetfulness, difficulty in completing tasks, a chronic feeling of over-activity, and inability in planning for the future (APA, 2013). Adults with ADHD often make lists but forget to use them, cannot keep up with many activities at the same time, find it hard to complete tasks, change jobs or plans unexpectedly, and miscalculate available time.

The way the main symptoms of ADHD may interfere in the academic life of students has been the focus of national and international studies (Advokat, Lane, & Luo, 2011; He & Antshel, 2017; Oliveira, Hauck-Filho, & Dias, 2016, Oliveira & Dias, 2015, Weyandt *et al.*, 2013). Inattention, hyperactivity, and impulsivity may harm the organization of time and tasks (Rabiner, Anastopoulos, Costello, Hoyle, & Swartzwelder, 2008) and the establishment of interpersonal relationships, which results in academic and occupational impairments for students or adults with the disorder (Barkley, Murphy, & Fischer, 2010; He & Antshel, 2017, Pitts, Mangle, & Asherson, 2015). In a systematic review of recent literature, international studies with college students with ADHD point out the similarities and differences between them and their peers without the disorder (Oliveira & Dias, 2015). Regarding college experience, in particular, students with ADHD resemble peers in study habits (Advokat *et al.*, 2011).

However, students with ADHD have more difficulties in adapting to the higher education context (Oliveira *et al.*, 2016), especially because this new environment requires the development of greater autonomy and efficient time management skills (He & Antshel, 2017). These individuals also believe they face greater difficulties than classmates in planning and performing daily activities (Pitts *et al.*, 2015), as well as avoiding stimuli that may distract them from their responsibilities (Advokat *et al.*,

2011; Weyandt *et al.*, 2013). These circumstances may contribute to college students with ADHD taking more time than their peers without the disorder to complete graduation (Oliveira & Dias, 2015). Further studies are necessary, especially in the Brazilian context, to bring further insights about this reality and help identify the specific difficulties that ADHD students face in the process of transition to college, as well as the strategies they use to cope with this transition.

Several intervention modalities for adults with ADHD such as individual psychotherapy and coaching (Eddy *et al.*, 2015; Prevatt & Yelland, 2013) have been described in the literature. The main aspects addressed are psychoeducation regarding ADHD, the need for planning and organizing goals, and the development of strategies for time management. Interventions generally focus only on the clinical aspects of the disorder (He & Antshel, 2017) and neglect other aspects that may impact the college experience, such as academic performance, strategies for coping with procrastination, and problems with concentration and planning (He & Antshel, 2017; Prevatt & Yelland, 2013). Both the support received by students with ADHD during the transition from high school to college as well as the coping strategies used by these students in dealing with the challenges imposed by the higher education context are understudied topics (Weyandt & DuPaul, 2012). Thus, there seems to be a need to identify which coping strategies students with ADHD symptoms use to deal with academic difficulties and college adjustment, which are useful or not for this purpose, therefore it is essential that researchers suggest how universities can support them.

The first objective of this study is to identify the major difficulties faced by college students with ADHD symptoms during their first year at college. The hypothesis is that the reported difficulties are related to the symptoms of the disorder, such as difficulties with concentration due to inattention, to establish new friendships or those generated by inattention and impulsivity, and to the need to adapt to a new context that imposes new challenges. The second objective is to verify which coping strategies are associated with better college adjustment. We expect that strategies focused on problem-solving and seeking social support correlate with higher levels of college adjustment. This knowledge can support interventions to this public in order to indicate which strategies are useful for better college adjustment.

Method

Participants

Twenty-eight college students from a sample of 510 participants were selected. The inclusion criterion was to respond frequently or very frequently on six or more items of the Adult Self-Report Scale (ASRS), which suggests symptoms highly consistent with the presence of ADHD in adults (Mattos *et al.*, 2006). From this sub-sample of 28 participants, 18 were female. The ages ranged from 17 to 43 years ($M = 24.25$, $SD = 6.43$). Participants were enrolled in 11 courses, namely, Administration, Performing

Arts, Biological Sciences, Accounting Sciences, Special Education, Nursing, Speech Therapy, Mathematics, Veterinary Medicine, Information Systems, and Superior in Grain Production of two public universities in southern Brazil.

Instruments

Sociodemographic Questionnaire. It contained open questions about the sex, age, major of the participants, and the difficulties encountered during the first year of graduation, such as: When joining the university, you may face difficulties you did not live in high school. Could you describe the difficulties faced at the university?

Adult Self-Report Scale (ASRS; Mattos et al., 2006). It is a screening scale of ADHD symptoms in adults validated for the Brazilian context. It contains 18 items (nine on inattention and nine on hyperactivity) that must be answered according to a five-point Likert scale: zero (never) to four (very often). The content of the items is based on the DSM-IV diagnostic criteria for ADHD in children adapted to adult life. The use of ASRS in adults is still relevant since there were no changes in the diagnostic criteria of ADHD proposed by DSM-V (APA, 2013).

Coping Strategy Scale (EMEP; Seidl et al., 2001). It evaluates the thoughts and actions used when facing specific stressors. In this study, the participants were asked to think about a current situation or problem that produces stress in academic life at the university. This scale contains 45 items distributed into four dimensions: problem-focused strategies, emotion-focused strategies, religious practices, and social support seeking. Items should be answered according to a five-point Likert scale: one (I never do this) to five (I always do this).

Academic Experiences Questionnaire - Reduced Version (AEQ-r; Granado, Santos, Almeida, Soares, & Guisande, 2005). This questionnaire evaluates the college adjustment of students. It contains 55 items organized into five dimensions: personal (psychological adjustment and general wellness), interpersonal (integration with friends and perception of support), career (satisfaction with major), study (level of organization and commitment to study), and institutional (satisfaction and bond with the institution). The items are rated on a five-point Likert scale, one (does not relate to me at all) to five (completely relates to me).

Procedures

The research was previously approved by the Research Ethics Committee of the Federal University of Santa Maria (CAAE 12378213.9.0000.5346). First, the two majors from each university center were randomized. Then, the research objectives and procedures were explained to the coordinators of these majors, who indicated professors in whose classes could invite students to participate in the study. Those who agreed to participate signed the consent form and responded to questionnaires collectively in the classroom.

Data analysis

Answers to the opened question were submitted to thematic content analysis. The complete responses of all participants were grouped and enumerated by the participant, and floating reading was used to identify recurrent themes (categories). In the analysis phase, the answers were dismembered according to the number of units of meaning that they presented. They were grouped into categories that congregated similar answers, which presented a common theme. The principles of completeness, representativeness, homogeneity, and relevance were observed (Bardin, 2011). Three judges carried out this process. After the establishment of these categories, the information offered by the participants was classified and a concordance index of 97% obtained among the judges. Data collected through EMEP and AEQ-r were analyzed by Pearson correlations.

Results

The main difficulties faced by college students with ADHD symptoms in their freshman year are shown in Table 1. As expected, the most frequent difficulties can be explained theoretically by the symptoms of ADHD and the adaptation to a new context: the need for greater autonomy, concentration and reasoning, relationship with classmates, and lack of information from the majors.

The means and standard deviations for all EMEP and AEQ-r dimensions are presented in Table 2. According to the results, the coping strategies most used by the participants are focused on problem-solving and search for social support. Regarding college adjustment, the most prominent difficulties are related to psychological well-being (personal dimension), study habits, and time management (study dimension), which had smaller means.

The correlational analysis shows that some coping strategies are associated with better college adjustment in students with ADHD symptoms. These results are presented in Table 3. Strategies focused on problem-solving presented positive correlation with study habits and time management. Strategies focused on emotion, such as regulating emotions through medication, have a negative correlation with the psychological well-being and establishment of friendships with classmates and professors. Religious practices presented negative correlations with identification with the major, but positive ones with study habits and time management. Contrary to expectations, the search for social support was not correlated with the dimensions of college adjustment, although it is one of the strategies most used by the sample studied.

Table 1. Difficulties of students with ADHD symptoms at freshman year.

Category	Examples	Frequency (%)
Differences between high school and higher education	Search for knowledge on my own (autonomy) Requirement of teachers	21.4
Cognition	The frequent chat of classmates disturbs my concentration Distraction in some disciplines Difficulty of following the reasoning	17.9
Interpersonal	Some classmates do not help and collaborate in the work Selfishness among classmates	17.9
Major functioning	Sometimes we have no information Bureaucracy for better use of resources	17.9
Personal	I was lost Oral works Search for information on my own and do not know how	14.3
Conduct of professors	Difficulty of some professors in teaching and asking for silence in class Different ways in which classes are taught	14.3
Do not notice difficulties	I did not face any difficulties	14.3

Source: The authors.

Table 2. Means and standard deviations of EMEP and AEQ-r.

Dimension	Means	Standard Deviations
EMEP Problem	3.54	.4931
EMEP Emotion	2.44	.5401
EMEP Religion	2.83	.9111
EMEP Social	3.36	.8777
AEQ-r Personal	3.58	.6782
AEQ-r Interpersonal	3.87	.5203
AEQ-r Career	3.70	.8225
AEQ-r Study	3.61	.6252

Source: The authors.

Table 3. Correlations between EMEP and AEQ-r dimensions.

	EMEP Problem	EMEP Emotion	EMEP Religion	EMEP Social
AEQ-r Personal	.289	-.393*	-.346	-.235
AEQ-r Interpersonal	.324	-.433*	.116	.111
AEQ-r Career	-.070	.018	-.499**	-.213
AEQ-r Study	.385*	-.022	.455*	.139

Note. * $p < .05$. ** $p < .01$.

Source: The authors.

Discussion

The first objective of this study was to identify the main difficulties faced by college students with ADHD symptoms during their freshman year. The main difficulties faced by participants can be attributed to symptoms of the disorder, at least theoretically. The need for greater autonomy in the university context, the search for information about an area of study or a higher education major can be a challenge for students with ADHD who do not have the support from parents and/or professors to organize and plan the use of this information (Rabiner *et al.*, 2008).

The difficulties related to concentration and reasoning reported by participants may also be due to symptoms of ADHD. There is a functional deficit in the front-orbital region of the brain that compromises inhibitory behavior and executive functions, which are responsible for inhibiting behavior, maintaining attention, employing self-control, and planning the future (Sjöwall, Roth, Lindqvist, & Thorell, 2013). Thus, it may be particularly difficult for students with ADHD to pay attention to the professor's explanation during class while attempting to control the urge to listen to peer-talk or other environmental stimuli.

Another difficulty presented by participants was the relationship with classmates. There is evidence that students with ADHD tend to establish problematic relationships within the academic context as a result of the symptoms of the disorder. Thus, there may be complaints about their apparent lack of commitment to studying, procrastination behavior, and conflict with professors and classmates (Barkley *et al.*, 2010). In this sense, it is possible that classmates and professors are less willing to

relate to these students. This fact would explain why the search for support as a coping strategy does not seem to be associated with college adjustment in the sample studied.

The difficulties identified in this sample of students with ADHD symptoms seem to be partially similar to the difficulties faced by college students in general. Oliveira and Dias (2014) found that the difficulties of students in higher education were related to the professors' level of demand and didactics, lack of understanding of the bureaucratic aspects of training, lack of options for extracurricular activities, presentation of works, interaction with other people, missing family members, responsibility for domestic activities, and freedom. Contrasting the findings by Oliveira and Dias (2014) with the results from this study (see Table 1), some commonalities concerning the difficulties faced by students of both samples were observed, such as a presentation of oral works, professors' demandingness and didactics, and understanding of bureaucratic aspects of university functioning. The specific difficulties observed in each sample seem to be due to the individual experience of the participants. In this study, the difficulties were related to cognitive abilities, time management strategies, economic resources, and transportation. In the study by Oliveira and Dias (2014), the observed difficulties were a lack of options for extracurricular activities, missing family members, and responsibility for domestic activities. The qualitative comparison of the difficulties presented in these two studies as well as the negative correlation between the severity of ADHD symptoms and college adjustment (Oliveira *et al.*, 2016) point to the need for further studies that compare whether there are qualitative and quantitative differences in the difficulties related to college adjustment faced by students with and without ADHD.

The second objective of this research was to verify which coping strategies are associated with better college adjustment of students with ADHD symptoms. Emotion-focused strategies were associated with lower levels of psychological well-being and relationships with peers and professors (personal and interpersonal dimensions of AEQ-r, respectively). One possible explanation for these results is that this type of coping strategy aims at diminishing unpleasant feelings and establishing friendships with classmates. This way, the levels of psychological well-being of students may be lower; however, the problem is not solved. This is a motive for concern since anxiety and symptoms of depression in students with ADHD increase when they face difficulties in the university, especially without the support of classmates to deal with these problems (Meaux, Green, & Broussard, 2009; Nelson & Gregg, 2012).

On the other hand, problem-focused strategies and religious practices are positively associated with study habits and time management. The adoption of strategies to solve the problems of university students with ADHD, such as planning, use of alarms, methods to remember the commitments, and elimination of distractions, as well as internal self-talk are recognized as factors that help students with ADHD (Meaux *et al.*, 2009). When students can recognize the difficulties they face, it may be useful to guide them in using these coping strategies in order to make small changes in their activities and routine (Weyandt & DuPaul, 2012).

It is important to mention that this study has some limitations that must be addressed. The sample presented symptoms consistent with ADHD, as evaluated by ASRS, but did not present the diagnosis of the disorder clinically. These symptoms may be due to other common clinical conditions unexplored or even comorbid to the ADHD, such as depression and anxiety. However, the presence of these symptoms, even without the diagnosis, does not prevent them from interfering with the issues of college adjustment and it does not mean that the public would not benefit from programs designed to deal with these difficulties. In addition, performing the diagnosis in adult life can be problematic. In a study carried out in the United Kingdom, 45% of the sample was diagnosed with ADHD after 18 years of age. The diagnostic process took more than a year and was carried out only after the visit to at least three professionals (Pitts *et al.*, 2015). Another limitation to this study was the fact that the groups with and without ADHD symptoms did not match in terms of gender, age, and term. Because of this, it was not possible to compare the two groups regarding perceived difficulties, college adjustment, and coping strategies.

Despite the limitations reported, the results of this study may interest clinical psychologists or university boards responsible for providing support to students. Interventions for students with ADHD symptoms may emphasize coping strategies that seem to impact college adjustment more, such as problem-solving. Problem-solving techniques that involve problem definition, generation of actions that may solve it, evaluation of problems, as well as choice and implementation of an alternative can be taught and trained with students as a way to help them make the most of their college experience.

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