## MEDICALIZATION, DYSLEXIA AND ADHD IN HIGHER EDUCATION: CONTRIBUTIONS FROM CULTURAL HISTORICAL PSYCHOLOGY

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ABSTRACT. Medicalization is understood as the process by which daily situations are individualized and transformed into medical problems. Higher Education has been the target of medicalizing practices, especially in relation to Attention Deficit Disorder with/without Hyperactivity (ADHD) and Dyslexia, since there is no consensus about the existence of these supposed disorders. In this regard, the general objective was to know and to analyze Dyslexia and ADHD technical reports used for entry to Higher Education through Cultural-Historical Theory contributions. Technical reports of candidates presented to the sector responsible for selection processes at the Federal University of Uberlândia (UFU), between 2003 and 2016, were examined. There were 809 applications, 96 candidates with reports for dyslexia and/or ADHD, 42 females and 54 males, 34 candidates with intention for Medical school. The number of requests increased between 2003 and 2016, as well as the use of medication; 32 candidates used methylphenidate hydrochloride. In this sense, we ask ourselves if diagnoses and medications have been used to facilitate entry to higher education. In addition, it is necessary to rethink the special attention given to candidates with dyslexia and ADHD reports and to deconstruct these supposed pseudodiagnoses, since they culminate in the proliferation of reports, increase in drug consumption and. consequently, contribute to the process of life medicalization.

**Keywords:** Medicalization; higher education; cultural-historical theory.

# MEDICALIZAÇÃO, DISLEXIA E TDA/H NO ENSINO SUPERIOR: CONTRIBUIÇÕES DA PSICOLOGIA HISTÓRICO-CULTURAL

**RESUMO.** Entende-se por medicalização o processo pelo qual situações cotidianas são individualizadas e transformadas em problemas médicos. O ensino superior tem sido alvo de práticas medicalizantes, principalmente em relação ao Transtorno de Déficit de Atenção com/sem Hiperatividade (TDA/H) e dislexia, uma vez que não existe um consenso sobre a existência destes supostos transtornos. Desta forma, esta pesquisa teve como objetivo conhecer e analisar os laudos de dislexia e TDA/H utilizados para o ingresso no ensino superior a partir das contribuições da Teoria Histórico-Cultural. Neste estudo, foi realizado um levantamento dos laudos nos anos de 2003 a 2016 apresentados por candidatos junto ao setor responsável pelos processos seletivos da Universidade Federal de Uberlândia (UFU). Foram elencados 809 requerimentos, em que 96 candidatos tinham laudos de dislexia e/ou TDA/H, sendo 42 do sexo feminino e 54 do masculino, 34 destes com intenção para o curso de medicina. O número de requerimentos aumentou de 2003 para 2016, assim como o uso de

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medicamentos, sendo que 32 candidatos comprovam o uso do composto cloridrato de metilfenidato. Neste sentido, perguntamo-nos se os diagnósticos e fármacos têm sido utilizados para facilitar o ingresso ao ensino superior. Além disso, é imprescindível que o atendimento especial a candidatos com laudos de dislexia e TDA/H seja repensado e tais pseudodiagnósticos desconstruídos, uma vez que culminam na proliferação de laudos, aumento do consumo de fármacos e, consequentemente, contribuem para o processo de medicalização da vida.

Palavras-chave: Medicalização; ensino superior; teoria histórico-cultural.

### MEDICALIZACIÓN, DISLEXIA Y TDA/H EN LA ENSEÑANZA SUPERIOR: CONTRIBUCIONES DE LA PSICOLOGÍA HISTÓRICO-CULTURAL

RESUMEN. Se entiende por medicalización el proceso por el cual situaciones cotidianas son individualizadas y transformadas en problemas médicos. La enseñanza superior ha sido objeto de prácticas de medicalización, principalmente en relación con el Trastorno de Déficit de Atención con / sin Hiperactividad (TDA / H) y Dislexia, ya que no existe consenso sobre la existencia de estos supuestos trastornos. En este sentido, en esta investigación se tuvo como objetivo conocer y analizar los laudos de Dislexia y TDA / H utilizados para el ingreso en la Enseñanza Superior a partir de las contribuciones de la Teoría Histórico-Cultural. En este estudio, se realizó un levantamiento de los laudos en los años 2003 a 2016 presentados por candidatos junto al sector responsable por los procesos selectivos de la Universidad Federal de Uberlândia (UFU). Se incluyeron 809 solicitudes, en las cuales 96 candidatos tenían laudos de Dislexia y / o TDA / H, siendo 42 del sexo femenino y 54 del masculino, 34 de ellos con intención para el curso de Medicina. El número de solicitudes aumentó de 2003 a 2016, así como el uso de medicamentos, siendo que 32 candidatos comprueban el uso del compuesto de Metilfenidato. En este sentido, nos preguntamos si se han utilizado diagnósticos y fármacos para facilitar el ingreso en la Enseñanza Superior. Además, es imprescindible que la atención especial a candidatos con laudos de Dislexia y TDA / H sea repensada y tales pseudo diagnósticos deconstruidos, una vez que culminan en la proliferación de laudos, aumento del consumo de fármacos y, consecuentemente, contribuyen al proceso de medicalización de la vida.

Palabras clave: Medicalización; enseñanza superior; teoría histórico-cultural.

#### Introduction

Foucault (1974), already in the 1970s, called attention to the expansion of medical power, naming this phenomenon as medicalization. For Meira (2012), medicalization is "[…] the process through which problems that are part of the daily life of individuals are moved to the medical field. In this way, phenomena of social and political origin are converted into biological issues, specific to each individual" (p. 132).

Generally, the medicalization process is confused with the term medication. Eidt, Tuleski and Franco (2014) make an interesting distinction between the terms and explain that medicate is the act of treating an organic disease, while the word medicalize refers to the attribution of a pathological character to sociocultural situations.

When talking about medicalization and pathologization, we cannot fail to mention the existence of Diagnostic and Statistical Manual for Mental Disorders (DSM), whose objective is to define and standardize the diagnosis of various mental disorders and which, in our view, culminates in the increase in demand for the medical profession and, also, the pharmaceutical market.

Dyslexia and ADHD are some of the pseudo-disorders most commonly linked to education and appear in different versions of the DSM. In the fifth version of the DSM, the term dyslexia is understood as "[...] an alternative term used in reference to a pattern of learning difficulties characterized by problems in the accurate or fluent recognition of words, problems in decoding and spelling difficulties." (American Psychiatric Association (APA), 2014, p. 67). Moysés (2010) puts dyslexia in question, while contradicts its existence due to the fact that its definition and criteria disregard the socio-cultural-historical aspects of the subject.

ADHD is related to symptoms of hyperactivity, inattention and impulsivity (APA, 2014). The alleged disorder is questioned by authors, such as Eidt and Tuleski (2007), due to the lack of clarity regarding its diagnosis. Its treatment, in most cases, consists of the use of medications, such as methylphenidate hydrochloride or lisdexamfetamine dimesylate, known commercially as Ritalina<sup>®</sup>, Concerta<sup>®</sup> and Venvanse<sup>®</sup>, which stimulate and potentiate norepinephrine and dopamine, neurotransmitters of the central nervous system (Ritalina<sup>®</sup>: cloridrato de metilfenidato, 2017). Many side effects can be triggered by such drugs as, for example, lack of appetite, increase in blood pressure and even acceleration of the heartbeat (Ritalina<sup>®</sup>: cloridrato de metilfenidato, 2017).

Besides the use of drugs associated with the diagnosis of ADHD, as previously mentioned, Barros and Ortega (2011) and Caliman and Rodrigues (2014) elucidate the use of these drugs as a quest to improve cognitive ability.

This quest for cognitive improvement is closely related to the importance occupied by higher education in society. As pointed out by Patto (2000), most people see higher education as a guarantee to achieve a better living condition and, therefore, want to enter a college, preferably public, which, however, does not offers enough places for everyone. Contrary to this social dimension, the 'failure' is individualized for not being able to enter the higher education level as if it were the sole and exclusive responsibility of the student, even going so far as to attribute it disorders.

The supposed disorders most often attributed to these subjects have been dyslexia and ADHD. Although there is no legislation that mandates differentiated service for candidates with dyslexia and ADHD in higher education, the National Institute for Educational Studies and Research Anísio Teixeira (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [Inep], 2012) released information about differentiated service in the exams of the National High School Exam (Enem) for people with such disorders. The document indicated that candidates could count on reading and transcription assistance, in addition to additional time and differentiated correction.

The Federal University of Uberlândia (UFU) offers special assistance to people with disabilities such as hearing, visual and physical impairment, among other needs, such as breastfeeding, people with ADHD and dyslexia, among other cases. The candidate with any health problem that requires differentiated service should fill out a document for requesting special care, on the university website, which requests information such as name, personal documents, telephone contact, date, signature, reason for the request and which assistance the candidate needs. The resources offered by the special care sector vary according to the need of the candidate, who should be informed through a medical report and, in the case of

ADHD, accompanied by a psychological report. The selection process committee offers a Libras interpreter, expanded time for completing the test, an individual room, a supervisor to read the questions, another to transcribe the answers to the official response sheet and an extension of up to 01 hour in the test time (Universidade Federal de Uberlandia, UFU, 2017).

In this scenario, we also began to question the use of these diagnoses with the objective of entering public university. Could it be that candidates without health problems have sought both a report and a medicine as a strategy to enter higher education?

Considering the proposal to rethink the pathologizing forms with which (dis)attention and the difficulties in writing and reading have been faced, we sought, from the conceptions of cultural-historical theory, to go beyond biologizing aspects in the understanding of man as a historical and cultural being. The problematization about the constitution of the subject, according to this theory, demonstrates a change in the point of view about how we understand ADHD and dyslexia.

#### (Un)seeing dyslexia and ADHD from concepts of historical-cultural theory

As previously mentioned, there is a great deal of dissent in the literature regarding both the existence of ADHD and dyslexia (Moysés, 2010; Eidt & Tuleski, 2007). Cultural-historical theory helps to (un)see the biologizing and pathologizing way in which the difficulties in teaching and learning and (dis)attention have been seen. Based on the contributions of the dialectical historical materialism of Marx (1818-1883) and Engels (1820-1895), Leontiev (1978) understands that the biological apparatus is essential to man, however, "[...] what nature gives him when he is born is not enough for him to live in society. It is still necessary for him to acquire what has been achieved in the course of the historical development of human society" (p. 267).

As explained by Leontiev (1978), the biological factor allows the manifestation of the so-called elementary psychological functions (EPF), which are involuntary, such as "perception, memory, attention, volition, language and thought" (Eidt & Tuleski, 2007, p. 238). As for involuntary attention:

It is very clear that, with this kind of natural attention, no stable, long-term form of organized behavior can emerge. Each new stimulus would then remove the previous context, and would continually bring about new reconstructions of behavior. Of course, these conditions can only satisfy an organism while it is out of social demands, out of the collective, out of work. Nevertheless, when an individual faces certain demands, when a certain organized task (however primitive it may be) has to be done, then non-volitional primitive attention is not enough, and different and more stable forms of attention are needed (Vygotsky & Luria, 1996, p. 196).

The most stable forms of care, as highlighted by the authors above, are only possible due to the development of higher psychological functions (HPF), these being voluntary processes, developed from social interaction and the appropriation of culture. An example of HPF is voluntary attention. For Luria (1991, p. 1), attention is "[...] the selection of the necessary information, the assurance of selective action programs and the maintenance of permanent control over them [...]" and is extremely related to the interests and life history of each people. In this way, until involuntary attention becomes voluntary, there is a long path that depends, firstly, on external mediation until it is possible to change the focus of attention on its own.

In addition to attention, another process that has been pathologized and medicalized concerns reading and writing. Facci (2007) proposes an article entitled *Professora*, é

verdade que ler e escrever é uma coisa fácil? to address, in the light of cultural-historical theory, how complex this process is.

[writing] needs, for its development, a high degree of abstraction. In fact, it requires a double abstraction: the graphic representation of the sound aspect of the language and the clarity of the content to be understood by its interlocutor, who is not present at the time when they are writing. When writing something, we have to be aware that our ideas must be clear to those who are reading, that the words must reflect our knowledge and the message we want to convey, it is, therefore, about representing a situation in thought (Facci 2007, p. 148).

For Facci (2007), the writing and reading processes are complex and do not depend only on the learning subject, but also on the teacher, society and the school community. The author emphasizes that "[...] the appropriation of knowledge, therefore, does not occur from a passive adaptation of the individual to reality; it represents the result of the individual's activity in order to master the socially elaborated procedures" (p. 140). In addition, according to Luria (1988, p. 144), "[...] writing can be defined as a function that is culturally accomplished through mediation".

Another concept relevant to the present discussion is the zone of proximal development, which can be called the zone of immediate, proximal or imminent development. In general, this area is understood by Vygotsky (1993) as the relationship between the level of real development, that is, what the person already manages to do, and the potential capacity that they can develop through external aid, echoing the author's words "[...] what the child is capable of doing today in collaboration will be able to do it for itself tomorrow" (p. 241).

From the concepts of cultural-historical theory briefly presented above, it makes no sense to understand dyslexia and ADHD as biological and individual disorders, since higher psychological processes, such as voluntary attention, are socially constructed, that is, they need external mediation to develop. As well illustrated by Eidt et al. (2014), *Attention is not born ready*<sup>4</sup>, that is, voluntary attention is not innate, it needs mediation to exist, and how this HPF is very much associated with the personal interests of each person (Luria, 1991), each one will present a different demand, because what may be interesting for one individual may not necessarily be for another, which requires understanding, by the professors, about the teaching and learning process.

Thus, we ask: what kind of mediation have we offered to students? Have we been operating in the zone of proximal development? What are their life stories? What are their peculiarities? Their potential? None of this appears in the diagnosis, all of this is summarized in an International Disease Code (ICD), usually accompanied by a drug prescription (Guarido, 2007). Until when and at what cost?

#### Methodological path

The research starts from a qualitative epistemology and has as its theoretical foundation the cultural-historical theory, being consistent with the proposal of this study to think the relationships and contexts in a depathologizing way, as it considers the historical, cultural and social aspects of the subjects. It aimed to know and analyze the reports of dyslexia and ADHD used to enter higher education, from the contributions of cultural-historical theory.

Based on the aforementioned theory, the importance of investigating the requirements received by UFU with diagnoses of dyslexia and ADHD was observed. Thus, during the year

<sup>&</sup>lt;sup>4</sup> We suggest reading the article *Atenção não nasce pronta: o desenvolvimento da atenção voluntária como alternativa à medicalização* (Eidt, Tuleski & Franco, 2014).

2016, data were surveyed from the requirements of candidates with applications for differentiated care due to any disability or need, giving priority to reports of dyslexia and ADHD. We observed characteristics such as diagnosis, sex, age, intended school, among other aspects of the medical and psychological reports presented by the candidates.

The literature review was performed in the Google Scholar, LILACS, PePSIC and SciELO databases, with no time scope, using the keywords Medicalization; ADHD; Dyslexia; Medicalization and Higher Education and Cultural-Historical Theory. We observe that there are few studies from the perspective of medicalization in higher education (Barros & Ortega, 2011; Cruz et al., 2011; Oliveira & Dias, 2015; Chagas & Pedroza, 2016) in relation, for example, to research carried out on this phenomenon in basic education. Next, we will present the analysis of the requirements raised, based on the following axes, organized considering the recurrence of the themes: medicine as the main choice of school; reason for requesting special assistance; medical specialties; drugs used by candidates; age at which candidates were diagnosed and, finally, we question whether diagnoses and drugs have been used to facilitate entry to higher education.

#### Results and discussion

We analyzed 809 requests for special assistance at UFU, between 2003 and 2016; of these, 117 contained diagnoses of dyslexia and/or ADHD and related to 96 candidates, as some of them took more than one entrance exam. The average age was 20 years old, 42 of which were female and 54 were male. Of these, only one candidate entered with the diagnosis of dyslexia, in the nutrition school, being referred to the Centro de Ensino, Pesquisa, Extensão e Atendimento em Educação (CEPAE - Center for Teaching, Research, Extension and Care in Special Education) at UFU and all data shared with the coordination of the nutrition school for better monitoring.

According to National Institute for Educational Studies and Research Anísio Teixeira (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [Inep] 2016), women are the majority in higher education, since of 8,048,701 Brazilian students enrolled, 4,603,846 are female. Although we realize that men are a minority in higher education, they still request more special assistance than women. Souza and Rodrigues (2002, p. 92) affirm that hyperactivity would be a "[...] typical behavior of boys". In contrast, Moysés (2010) believes that these data need to be problematized and contextualized. Thus, there is a fine line that expresses extreme difficulty in distinguishing between what would be a bad behavior and what would culminate in a disorder itself.

Another relevant information that the survey brought is about the increase in the number of dyslexia and ADHD requirements between 2005 and 2016. The first dyslexia report appeared in 2005 and ADHD in 2007, reaching the year 2016 with 29 applications, totaling 117 of these over 11 years. According to Sampedro (2013), it is believed that 3 to 7% world population are affected by ADHD and up to 10% have symptoms of dyslexia. However, we must consider historical and economic aspects in these data, such as campaigns to propagate information about these pseudo-disorders that may have contributed to the increase in diagnoses (Barkley, 2002).

#### Medicine as the main choice of program

Although not all requests contain the option of the intended school, since it was not a mandatory data to be filled in the Special Assistance annex, only 67 brought this information

over the years 2005 to 2016 and of these, 34 chose medical school, which showed a great discrepancy (50.7%) in relation to the other programs. According to the survey data, four candidates took the entrance exam for the psychology school, three for law, two for administration, physical education, civil engineering, electrical and mechanical engineering, nutrition and dentistry, and the aeronautical engineering, engineering surveying, production engineering, agronomy, visual arts, biology, biotechnology, material physics, history, veterinary medicine, information system and theater each had a candidate.

Medicine was the most attended school at UFU in 2016, occupying 8,911 enrollments out of a total of 20,075 candidates, that is, 44.83% total enrollments (Universidade Federal de Uberlândia, 2016). Thus, being the most popular school, we question the number of candidates for special care with reports of dyslexia and ADHD, diagnoses that offer resources such as, for example, additional time in the entrance exam. What does 01 extra hour of test mean for the most popular school at the university?

Due to the large number of candidates per vacancy in medical school, we ask ourselves: what level of demand is this suffered by the candidates for this school? Given such competition, which further increases the difficulty and perhaps the time to get a place in the course, are factors like these leading to believe that they have a disorder? Or, perhaps, it can lead them to look not only for a medication, but also for special care that gives them additional time to complete the entrance exam?

In this sense, according to Prado (2014), some preparatory courses were encouraging their students to request special attendance at ENEM, claiming a diagnosis of ADHD, in order to obtain 01 additional hour of test. Could it be that, like the preparatory courses, candidates have also used the resource of additional time, for example, as an advantage to get a place in higher education?

#### Reason for requesting special assistance

During the survey, we also obtained information on the reasons for the requests. We found 26 applications that included reports of dyslexia, five referring to dyslexia in comorbidity with ADHD, a requirement that indicated dyslexia and attention deficit; mild dyslexia; medium dyslexia; severe mixed dyslexia (visual and auditory); dyslexia and obsessive compulsive disorder (OCD); dyslexia and skull ataxia; dyslexia and congenital malformation, ADHD, OCD and anxiety; ADHD, Asperger syndrome; ADHD and scoliosis; ADHD and anxiety; ADHD, depression and anxiety; concentrated deficit disorder (CDD); ADHD and risk of anaphylactic shock; attention deficit and hyperactivity syndrome; attention deficit and hyperactivity; attention deficit and hyperactivity, Irlen syndrome, epilepsy, hemiplegia and wheelchair users; two of attention deficit disorder (ADD); five with attention deficit, eight with DDA and 33 with ADHD.

It is interesting to note the variety of terms used to refer, in most cases, to the same disorder. Moysés and Collares (2010) and Scarin and Souza (2020) make a retrospective on the various names and definitions that both ADHD and dyslexia have received since their emergence. Dyslexia came up with the term congenital verbal blindness in 1896 and, in 1925, this disorder is now called *Strephosymbolia*, which indicated mirroring of letters and symbols (Coles, 1987, as quoted in Moysés & Colares, 2010). In 1960, the alleged disorder gains another name: evolution specific dyslexia (Moysés & Collares, 2010). The term dyslexia, properly speaking, appears for the first time in DSM III-R, considered as a subdivision of specific developmental disorders and, in the fourth version, dyslexia becomes part of the group of learning disorders (Scarin & Souza, 2020).

ADHD, on the other hand, appeared in the middle of 1918, however with another nomenclature and diagnostic structure, known as minimal brain injury and, shortly after, in 1960, it received the name of minimal brain dysfunction (Schechter, 1982, as cited in Moysés & Collares, 2010). In 1984, the American Academy of Psychiatry changed its name from DCM to Attention Deficit Disorder (ADD) or followed by hyperactivity (ADD-H). In DSM III-R, DDA/H becomes a subdivision of specific developmental disorders. In the fourth version, there was a change in the terminology, being then called attention deficit disorder with or without hyperactivity (Scarin & Souza, 2020).

In addition to nomenclature changes, there were drastic changes in relation to the structures of the disorders. Echoing the words of Moysés and Collares (2010, p.82) "It should not be overlooked that when there is an excess of names, concepts, causes for the same phenomenon, with a great chance none of them is reliable".

#### **Medical specialties**

Another information brought by the survey concerns the medical specialties most present in the reports of dyslexia and ADHD. We found eight different specialties, it is important to note that only 59 reports contained this information, since 2008, focusing on the years 2014 to 2016. Psychiatry was the one that most appeared, adding up to 27 reports; followed by neurology, with 23 reports; neurosurgery; ophthalmology and otorhinolaryngology twice, and neurology and psychiatry; neuropediatrics and general practitioners appeared only once. Although otorhinolaryngology and ophthalmology are included in reports in which there was a comorbidity of diagnoses, Guarido (2007) makes a pertinent statement:

The wide range of symptoms present in the manuals, as well as the diagnostic form proposed by them, allows many daily events, temporary suffering or other behaviors, to be registered as symptoms of mental disorders. The socialization of DSM-IV in general medical training allows clinicians from other specialties, other than psychiatric, to be able to medicate their patients with ease. It is not a matter of suggesting the maintenance of the psychiatric domain in this case, but of revealing the trivialization of the diagnosis and the unrestricted use of medications as an intervention in the face of life (p. 158).

Also, medical training does not always include pedagogical content, essential to distinguish between a disorder and a difficulty in the teaching and learning process. Does the data collected by the physician at the consultation exempt them from the need to visit the child or adolescent school? Or an interview with the faculty? Or, yet, observe this patient in another context?

#### Medication used by candidates

As very well stated by Guarido (2007), the medication has been part of the diagnosis. We found data that reveal that 41 candidates for special entrance exams were in declared use of some medication, that is, 42.7%. Thus, we observed that this information on the use of drugs started to appear in the reports as of 2010 and has undergone a significant increase over the years, whereas in 2016, there are 12 reports with prescription drugs. In the observation and analysis of the reports, we came across 16 different names of drugs, among them: Concerta<sup>®</sup>, Cymbalta<sup>®</sup>, Depakote<sup>®</sup>, Lisdexamfetamine dimesylate, Agomelatina<sup>®</sup>, Frontal<sup>®</sup>, Imipramina<sup>®</sup>, Methylphenidate, Quetiapina<sup>®</sup>, Ritalina<sup>®</sup>, fast-acting Ritalina<sup>®</sup>, Ritalina<sup>®</sup> LA, Sertralina<sup>®</sup>, Solium<sup>®</sup>, Stavigile<sup>®</sup> and Venvanse<sup>®</sup>. Four candidates did not specify the names of the drugs used.

Drugs that appear the most are the compounds of Methylphenidate Hydrochloride, commercially known as Concerta® and Ritalin® and their variations, and Lisdexamfetamine Dimesylate, sold by the name Venvanse®. There are a total of 32 candidates using these psychostimulants, six of whom are associated with other medication(s), such as Sertralina®, Solium®, Quetiapina®, Imipramine®, Stavigile®, Depakote® and Agomelatina®, due to comorbidities with other disorders. Of these, three are diagnosed with dyslexia and three with dyslexia and ADHD - comorbidity - 15 are diagnosed with the term ADHD, one with attention deficit and hyperactivity syndrome, five with ADHD, one with ADHD and anxiety and one with ADHD and scoliosis.

ADHD is commonly linked to the use of some psychostimulant, such as the compound Methylphenidate Hydrochloride, for example. Although the diagnosis of dyslexia does not predict the use of medication (Associação Brasileira de Dislexia [ABD], 2017), the survey brings controversial data when it shows that three candidates diagnosed with dyslexia have a prescription for controlled substance. That is, in addition to the almost naturalized use of medication in cases of ADHD, alleged dyslexics have also been using medication, further increasing the severity of the pathologization and medicalization processes.

Of the 32 candidates using methylphenidate, 22 are men and ten women, which corroborates Cruz et al. (2011), who states that the use of methylphenidate is greater among men. In several programs, we found only one candidate, using medication, competing for the entrance exam, but 13 for the medical school, all of whom had an ADHD report.

#### Age at which candidates were diagnosed

Another aspect observed in the survey was the age at which the candidates were diagnosed. Out of 96, only 67 requests contained such information, since it was not a data requested in the application for special assistance. Although the notice for the university entrance exam (UFU, 2017) requested an updated report, most of them did not mention a previous history of treatment or follow-up of the diagnosis, which indicated that many had discovered the disorder around the age of 18, the age at which they took the entrance exam. Thus, 12 candidates were diagnosed at the age of 18; nine at 19 years old; six at 17 years; four at 20 and 21 years old; three at ten, 13, 22, 23 and 24 years old; two at 7, 8, 11, 14 and 33 years old; one at 6, 12, 15, 26 and 36 years old and two reports did not specify this information.

It is curious that, as predicted by the diagnostic criteria proposed by DSM V (APA, 2014) in relation to ADHD, the symptoms should appear until 12 years of age to be considered as ADHD. Only 11 reports brought a history and diagnostic information before the age of 12, and the rest (55) did not present such information, which leads us to question whether these candidates have used diagnoses, drugs and even special care to be able to enter higher education. Or is it because of the difficulty in entering public university, they started to believe that they had some disorder, individualizing and pathologizing something that is social: the scarce number of places in an exclusive and competitive education system?

Another point that deserves discussion is the fact that attention is not seen as a socially developed function; on the contrary, DSM V (APA, 2014), which is widely used to define the disorder, indicates general criteria for diagnosis and does not consider social aspects. As explained by Calia and Ribeiro (2015), the manual ends:

[...] systematizing, quantifying and clinically 'intelligibilizing' human manifestations intelligible in order to promote explanations that guide practices in various areas and, strongly, in the area of health, often transforming the phenomena proper to the mental world - psyche - and social and cultural phenomena into causal and logically determined by absolutely a single factor: Biological (p. 180, author's emphasis).

#### Final considerations

We understand by medicalization the process that transforms everyday situations into medical issues and social problems into biological ones and, in this sense, we question the diagnoses of dyslexia and ADHD, pseudo-disorders that, in our view, are not related to neurological problems, but reflect social relationships and school needs that need to be profoundly rethought.

For cultural-historical theory, education has a primary role in development, which goes far beyond biological maturation, as it is a historical and cultural process, which occurs through the appropriation of scientific and cultural knowledge created by humanity. The role of the school in the development of voluntary care and the teaching and learning of writing leads us to think that the difficulties inherent in these processes need to be taken care of in a pedagogical and social rather than an individual and medical scope.

The contributions of cultural-historical theory reveal that attention, as a higher psychological function, is developed throughout life and, like learning to write, needs adequate mediation and reorganization in teaching and learning methods, since each person learns in a different way. Have such pedagogical methods been, in fact, effective in the development of skills such as attention and writing? Or, on the contrary, have they helped to increase the diagnosis of ADHD and dyslexia?

Rescuing the concept of zone of proximal development, here already addressed, when a disorder is diagnosed, the subject's potential capacity level is unknown, focusing only on their current development and the functions previously developed. How many reports have been carried out and how many drugs are recommended without observing the potential for development of these people subjected to purely biological and static diagnostic criteria? Echoing the questioning of Eidt and Tuleski (2010, p. 131) "[...] the objective conditions of existence of the vast majority of the population favor or hinder the development of higher psychological functions in the new generations?".

From the analysis of data, we understand that there is an urgent need to rethink the forms of special care offered to candidates with reports of dyslexia and ADHD, mainly because we understand that these can be used to favor some people to get a place in a very popular school at a public university.

In this way, we propose that universities offering this special service for people with dyslexia and ADHD request that these reports bring the history of the diagnosis and the age at which the candidate started presenting the symptoms. Still, considering that each person presents a way of learning and, in addition, a different time to take a test, for example, we suggest that the selection processes are flexible, that is, that the presence of a medical report is not necessary for that the candidate gets 01 additional hour of test. Why not offer this to everyone? Quality public education is essential since early childhood, wide access to goods historically produced by humanity, as well as the struggle for greater access to higher education, increasing the number of vacancies and thus reducing the exclusionary aspect of selection processes.

The scarce number of places in public universities culminates in an extremely fierce competition, a reality masked by the cruel conception imposed by capitalist society that the individual is solely responsible for their success or failure, which further favors a medical and pathologizing view of social issues.

This research denounces medicalizing practices at the higher education level, evidenced in the survey, for example, by the dizzying increase in diagnoses of dyslexia and ADHD every year. Data such as these point to the need for further studies in higher education in relation to the processes of pathologization and medicalization of education.

In this sense, it is essential that special care for candidates with reports of dyslexia and ADHD is rethought and such pseudo-diagnoses deconstructed, since they culminate in the proliferation of reports, increased consumption of medications and, consequently, contribute to the medicalization of life.

#### References

- American Psychiatric Association (APA). (2014). *Manual diagnóstico e estatístico de transtornos mentais*. Porto Alegre, RS: Artmed.
- Associação Brasileira de Dislexia (ABD). (2017). *Como é feita a intervenção?* Retrieved from http://www.Dislexia.org.br/como-e-feita-a-intervençao/
- Barkley, R. A. (2002). Transtorno do déficit de atenção/hiperatividade (TDAH): guia completo para pais, professores e profssionais da saúde. Porto Alegre, RS: Artmed.
- Barros, D. B., & Ortega, F. (2011). Metilfenidato e aprimoramento cognitivo farmacológico: representações sociais de universitários. *Saúde e Sociedade, 20*(2), 350-362. doi: 10.1590/S0104-12902011000200008
- Calia, A. D., & Ribeiro, M. C. F. (2015). A medicalização da educação e sua estreita relação com a dependência de drogas: "novas embalagens para antigos interesses". In *Anais do XII Congresso de Psicologia Escolar e Educacional CONPE e 37th Conference ISPA* (p. 176-200). São Paulo, SP, Brasil. Retrieved from https://abrapee. files.wordpress.com/2015/10/anais-xii-conpe-versc3a3o-final.pdf
- Caliman, L. V., & Rodrigues, P. H. (2014). A experiência do uso de metilfenidato em adultos diagnosticados com TDAH. Maringá: *Psicologia em Estudo, 19*(1), 125-134. doi: 10.1590/1413-7372189590012
- Chagas, J. C., & Pedroza, R. L. S. (2016). Patologização e medicalização da educação superior. *Psicologia: Teoria e Pesquisa, 32*(esp.), 1-10. doi; 10.1590/0102-3772e32 ne28
- Cruz, T. C. S. C., Barreto Junior, E. P. S, Gama, M. L. M., Maia, L. C. M, Melo Filho, M. J. X., Manganoti Neto, O., & Coutinho, D. M. (2011). Uso não-prescrito de metilfenidato entre estudantes de medicina da Universidade Federal da Bahia. *Gazeta Médica da Bahia, 1*(81), 3-6. Retrieved frorm http://www.gmbahia.ufba.br/index.php/gmbahia/article/viewFile/1148/1082

- Eidt, N. M., & Tuleski, S. C. (2007). Discutindo a medicalização brutal em uma sociedade hiperativa. In M. E. M. Meira, & M. G. D. Facci (Orgs.), *Psicologia histórico-cultural: contribuições para o encontro entre a subjetividade e a educação* (p. 221-248). São Paulo, SP: Casa do Psicólogo.
- Eidt, N. M., & Tuleski, S. C. (2010). Transtorno de déficit de atenção/ hiperatividade e psicologia histórico-cultural. *Cadernos de Pesquisa, 40*(139), 121-146. doi: 10.1590/S0100-15742010000100007
- Eidt, N. M.; Tuleski, S. C., & Franco, A. F. (2014). Atenção não nasce pronta: o desenvolvimento da atenção voluntária como alternativa à medicalização. *Nuances:* estudos sobre Educação, 25(1), 78-96. doi: 10.14572/nuances.v25i1.2759
- Facci, M. G. D. (2007). "— Professora, é verdade que ler e escrever é uma coisa fácil?" Reflexões em torno do processo de ensino aprendizagem na perspectiva vigotskiana. In M. E. M. Meira, & M. G. D. Facci (Orgs.), *Psicologia histórico-cultural: contribuições para o encontro entre a subjetividade e a educação* (p. 135-155). São Paulo, SP: Casa do Psicólogo.
- Foucault, M. (1974). *Histoire de la médicalisation*. Retrieved from http://documents.irevues.inist.fr/bitstream/handle/2042/15679/HERMES\_1988\_2\_13.pdf;jsessionid=43C 1A07BD3948D6C4131ACFC439F61%2098?sequence=1
- Guarido, R. (2007). A medicalização do sofrimento psíquico:considerações sobre o discurso psiquiátrico e seus efeitos na Educação. *Educação e Pesquisa, 33*(1), 151-161. doi:10.1590/S1517-97022007000100010
- Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Inep). (2012). *O atendimento diferenciado no ENEM.* Retrieved from http://download.inep.gov. br/educacao\_basica/enem/nota\_tecnica/2012/atendimento\_diferenciado\_enem\_2012.pdf
- Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Inep). (2016). Sinopse estatística da educação superior 2016. Brasília, DF: Inep. Retrieved from http://portal.inep.gov.br/web/guest/sinopses-estatisticas-da-educacao-superior
- Leontiev, A. N. (1978). O desenvolvimento do psiguismo. Lisboa, PT: Livros Horizonte.
- Luria, A. R. (1988). Desenvolvimento da escrita na criança. In L. S. Vigotskii, A. R. Luria, & A. N. Leontiev, *Linguagem, desenvolvimento e aprendizagem* (p.143-189). São Paulo, SP: Ícone.
- Luria, A. R. (1991). *Curso de psicologia geral* (Vol. III). Rio de Janeiro, RJ: Civilização Brasileira.
- Meira, M. E. M. (2012). Para uma crítica da medicalização na educação. *Psicologia Escolar e Educacional*, 16(1), 135-142. doi:10.1590/S1413-85572012000100014
- Moysés, M. A. A. (2010). Dislexia existe? Questionamento a partir de estudos científicos. Dislexia: Subsídios para Políticas, 8(1), 11-23. Retrieved from

- http://www.crpsp.org.br/portal/comunicacao/cadernos\_tematicos/8/frames/fr\_Dislexia.a spx
- Moysés, M. A. A., & Collares, C. A. L. (2010). Dislexia e TDAH: uma análise a partir da ciência médica. In Conselho Regional de Psicologia de São Paulo [CRP/SP], & Grupo Interinstitucional Queixa Escolar (Orgs.), *Medicalização de crianças e adolescentes: conflitos silenciados pela redução de questões sociais a doenças de indivíduos* (p. 71-110). São Paulo, SP: Casa do Psicólogo.
- Oliveira, C. T., & Dias, A. C. G. (2015). Repercurssões do Trantorno de Déficit de Atenção/hiperatividade (TDAH) na experiência universitária. *Psicologia Ciência e Profissão*, *35*(2), 613-629. doi: 10.1590/1982-370300482013
- Patto, M. H. S. (2000). A miséria do mundo no terceiro mundo (sobre a democratização do ensino. In M. H. S Patto, *Mutações do cativeiro: escritos de psicologia e* política (p. 187- 215). São Paulo, SP: Hacker/Edusp.
- Prado, M. (2014, 20 de maio). *A 'droga da obediência' no ENEM.* [Blog]. Retrieved from http://educacao.estadao.com.br/blogs/mateus-prado/a-droga-da-obediencia-no-enem/
- Ritalina®: cloridrato de metilfenidato: Comprimidos 10mg (2017). (F. R. Pegorer, farmacêutica). [bula de remédio]. Taboão da Serra, SP: Anovis Industrial Farmacêutica Ltda. Retrieved from https://portal.novartis.com.br/UPLOAD/ImgConteudos/1518.pdf
- Sampedro, J. (2013, 5 dezembro). No cérebro de um disléxico: uma pesquisa demonstra que os afetados pelo transtorno têm os módulos linguísticos da mente menos conectados. A descoberta muda a forma de se entender e abordar a patologia. *El País*, Sociedade [online]. Retrieved from https://brasil.elpais.com/brasil/2013/12/05/sociedad/1386267524 315616.html.
- Scarin, A. C. C. F., & Souza, M. P. R. de. (2020). Medicalização e patologização da educação: desafios à psicologia escolar e educacional. *Psicologia Escolar e Educacional*, 24(1), 1-8. doi: 10.1590/2175-35392020214158
- Souza, F., & Rodrigues, M. M. P. (2002). A segregação sexual na interação de crianças de 8 e 9 anos. *Psicologia: Reflexão e Crítica, 15*(3), 489-496. doi: 10.1590/S0102-79722002000300004
- Universidade Federal de Uberlânda (UFU). (2016). *Processo seletivo 2016-2: relação candidato/vaga*. Retrieved from https://www.sistemas.dirps.ufu.br/sisarq/Arquivo Administrativos/download/a385d7d1e52d89d1a445faa37f5b5307
- Universidade Federal de Uberlândia (UFU). (2017). *Edital UFU/ DIRPS, de 09 de janeiro de 2017, requerimento de atendimento especial para realização das provas*. Uberlândia. Retrieved from https://www.sistemas.dirps.ufu.br/sisarq/ArquivoAdministrativos/download/6e7d5d259be7bf56ed79029c4e621f44
- Vygostky, L. S. (1993). Obras escogidas II: pensamiento y lenguaje. Conferencias sobre Psicología (Tomo II). Madrid, ES: Centro de Publicaciones del M.E.C. y Visor Distribuciones.

Vygotsky, L. S., & Luria, A. R. (1996). Estudos sobre a história do comportamento: o macaco, o primitivo e a criança. Porto Alegre, RS: Artes Médicas.

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