
Disabilities and specific educational needs in the classroom: diagnosis, treatment and proposal for its intervention in the school context

Discapacidades y necesidades educativas específicas en el aula: diagnóstico, tratamiento y propuesta para su intervención en el contexto escolar

残疾和特殊教育学生在课堂上的需求: 诊断、治疗和学校干预建议

Ограниченные возможности и особые образовательные потребности в классе: диагностика, лечение и предложение по вмешательству в школьном контексте

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Abstract

Although there are many cognitive and behavioral alterations evidenced in school children; the conditions declared as disabilities due to their high prevalence in the classroom are cognitive disabilities, autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD). The objective of the study aims to relate the most outstanding characteristics of each group related to the diagnosis and treatment of schoolchildren with a disability condition, in the space known as the classroom, allowing to establish a common care route to the alterations studied and the protocol to be followed. Develop by the teacher so that they have elements to carry out pedagogical intervention processes and the school student reaches significant learning within the framework of their individual differences.

From a qualitative approach, an interpretive analysis of the data collected in the studied population is made. In terms of results, it is inferred that students with cognitive and mental psychosocial disabilities comply with the academic activities according to the program's curriculum, with individual adjustments based on their neuro-pedagogical assessment and with the necessary support by specialized professionals. These last, in order to use teaching evaluation strategies for the learning of students and the use of therapeutic techniques considering the diagnoses by health professionals. The need for a collaborative work between the school and the family, and an articulated care development at all times between education and health, is evidenced.

Keywords: inclusive education, specific needs, pedagogical intervention, inclusive evaluation.

Resumen

Aunque son muchas las alteraciones cognitivas y conductuales evidenciadas en escolarizados, las condiciones declaradas como discapacidad por su alta prevalencia en el aula son la cognitiva, así como el trastorno del espectro autista (TEA) y el trastorno por déficit de atención e hiperactividad (TDAH). El objetivo de este estudio permitió relacionar las características más sobresalientes de cada grupo relacionadas con el diagnóstico y el tratamiento de escolarizados con una condición de discapacidad, en el espacio conocido como el aula, lo que permite establecer una ruta de atención común a las alteraciones estudiadas y el protocolo a desarrollar por el docente, de manera que tenga elementos para realizar procesos de intervención pedagógica y el escolarizado alcance un aprendizaje significativo en el marco de sus diferencias individuales.

Desde un enfoque cualitativo, se hace un análisis interpretativo de los datos recolectados en la población estudiada. En cuanto a resultados, se infiere que los estudiantes en condición de discapacidad cognitiva y mental psicosocial cumplen las actividades académicas según el currículo del programa, con ajustes individuales a partir de su valoración neuropedagógica y con los apoyos necesarios de profesionales especializados, por lo que es necesario el apoyo a los docentes en el uso de estrategias de evaluación del aprendizaje del escolarizado y de técnicas terapéuticas, de acuerdo con los diagnósticos por parte de los profesionales de la salud. Se concluye que es necesario un trabajo colaborativo entre la escuela y la familia, además de un desarrollo de atención articulado en todos los momentos entre la educación y la salud.

Palabras clave: educación inclusiva, necesidades educativas, intervención pedagógica, evaluación inclusiva.

概要

尽管有证据指出在学生中有许多不同的认知和行为紊乱，但在课堂上因高患病率而被宣布为残疾的疾病是认知疾病，以及自闭症谱系障碍 (ASD) 和注意力缺陷多动障碍 (ADHD)。这项研究的目的是使我们能够在称为教室的空间中将残疾学童的诊断和治疗相关的每个群体的最突出特征联系起来，从而为所研究的改变建立一个共同的护理路线。由教师制定的协议，以便其具有进行教学干预过程的要素，并且学生在个体差异的框架内实现有意义的学习。研究采用定性方法，对研究人群中收集的数据进行解释性分析。从结果来看，有认知和心理社会障碍的学生按照项目课程开展学业活动，根据神经教育学评估进行个体调整，并得到专业人士的必要支持，因此有必要支持教师根据医疗专业人员的诊断，使用评估学生学习和治疗技术的策略。结论是，除了教育和健康之间始终推动明确的护理之外，学校和家庭之间的协作也是必要的。

关键词:全纳教育、教育需求、教学干预、全纳评价。

Аннотация

Хотя у школьников наблюдается множество когнитивных и поведенческих изменений, среди состояний, объявленных инвалидностью в силу их высокой распространенности в классе, выделяются когнитивные расстройства, а также расстройства аутистического спектра (РАС) и синдром дефицита внимания с гиперактивностью (СДВГ). Цель данного исследования позволила нам соотнести наиболее яркие характеристики каждой группы, связанные с диагностикой и лечением школьников с ограниченными возможностями, в пространстве, известном как классная комната, что позволяет нам установить общий маршрут внимания к изучаемым изменениям и протокол, который должен разработать учитель, чтобы у него были элементы для осуществления процессов педагогического вмешательства, а школьник достиг значительного обучения в рамках своих индивидуальных различий. На основе качественного подхода проводится интерпретационный анализ данных, полученных от изучаемой популяции. В результате сделан вывод о том, что учащиеся с когнитивными и психосоциальными нарушениями выполняют учебные задания в соответствии с учебным планом программы, с индивидуальной коррекцией на основе нейропедагогической оценки и при необходимой поддержке со стороны специализированных специалистов, поэтому необходима поддержка учителей в использовании стратегий оценки школьного обучения и терапевтических методов в соответствии с диагнозами, поставленными медицинскими работниками. Делается вывод о необходимости совместной работы школы и семьи, а также развития артикулированной помощи на постоянной основе между образованием и здравоохранением.

Ключевые слова: Инклюзивное образование, образовательные потребности, педагогическое вмешательство, инклюзивная оценка.

Introduction

This article addresses the following conditions: Cognitive disability, attention deficit hyperactivity disorder (ADHD), and autism spectrum disorder (ASD), as well as the specific needs these conditions entail, which requires differentiated educational support due to their higher rate of occurrence in the classroom. It should be noted that other conditions also coded in mental health diagnostic manuals (DSM 5.0 and CIE-10), such as specific disorders of speech, writing or calculation, are not included, since they are not part of the main objective of this work, but it is implicit that the global coping strat-

egy model can also be used in such cases. In general terms, the prevalence of diseases or conditions that cause disability in the world is variable and some studies describe prevalences ranging from 2% to 3% of the population (Cobas et al., 2011).

On the one hand, cognitive disability manifests itself before the age of 18 and may be associated, in some cases, with physical-motor and sensory limitations, as well as behavioral disorders. This disability can be observed as a common denominator in other pathologies such as ASD and ADHD. Individuals diagnosed with cognitive impairment reach a level of functionality below chronological age, with or without behavioral problems (Tallis et al., 2020). Until before the publication of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM 5.0), the classification of this disability was based on the total IQ or the result of a psychosocial maturity scale that establishes the mental age of the individual, according to the activities he or she is able to perform. Since the first edition of DSM 5.0, this classification is given according to the level of operation, which means that the higher the level of operation, the greater the opportunities for schooling, employment, and social inclusion.

As compared to the previous classification, although the levels remain the same (mild, moderate, severe, and deep), the functional contents have changed. This manual establishes a series of characteristics that enable both health care personnel and teachers to establish strategies of rehabilitation, curricular adaptation, and inclusion in all its aspects, without initially exceeding the individual's adaptive capabilities. This classification can be viewed in the table that summarizes functional characteristics listed in DSM 5.0 (American Psychiatric Association, 2014; Tallis et al., 2020).

As for autism spectrum disorder, this is comprised of a set of physiological phenomena characterized by difficulties in socialization and the presence of restrictive behavioral patterns that are inflexible. In accordance with the severity of these restrictive behavioral patterns, a person with these disorders is classified as grade 1, needing help; grade 2, needing significant help; and grade 3, needing very significant help. This classification can be viewed in the table that summarizes functional characteristics listed in DSM 5.0 (American Psychiatric Association, 2020). Regarding attention deficit hyperactivity disorder, this is a condition in which the individual who suffers from it faces difficulty concentrating on the activities he or she performs, and such difficulties may or may not be accompanied by hyperactivity (motor restlessness and constant movement) (Soutullo Esperón, 2008).

Based on the above, it should be highlighted that this review explains the most relevant clinical features that can be observed in the classroom (cognitive disability, autism spectrum disorders and attention deficit disorder with or without hyperactivity) and the generalities of clinical processes required for their diagnosis, therapeutic treatment for rehabilitation and school inclusion, as well as a proposed model to establish a system of real time data exchange regarding the attention level of students with specific needs, who require differentiated educational support in the classroom context.

From the initial attention approach, the following question is elicited: What priority must be addressed when dealing with a boy, girl or youth who may have some of these characteristics? To answer this question, a care route proposal has been developed to steer the child toward the educational and health system in such a way that, in an articulated manner, the expected results can be achieved by the child in the educational and social process.

Methods

Based on the approaches of Hernandez et al. (2014), it can be claimed that this study offers a qualitative approach. According to the characteristics of this approach, correlation or hypothesis testing is not performed, since these questions or hypothetical premises arise as the need for inquiry is addressed, and it is complemented so long as progress is attained, which generates continuous improvement. The qualitative approach usually presents an interpretative analysis of the data collected. In this way, since there are no specific comparative parameters, it is up to the author's expertise to identify the changes that occur during the process under study (Roman & Marrugo, 2022; Schenkel & Pérez, 2018). Therefore, this approach is adjusted to the intent of the proposed research, because the position of the participants deserves a particular analysis from the standpoint of a purely qualitative assessment. The development of the study took place in three phases, which are detailed below.

Phase I. Bibliographic review: This is a literary search carried out on the theoretical foundations of disabilities, in terms of cognitive impairment, autism and ADHD, which are the most prevalent conditions in a regular classroom within the context studied.

Phase II. Data collection: In this phase, data collection tools are designed and validated, and they are subsequently applied to the selected sample on a systematic basis to obtain qualitative data of interest.

Phase III: Data analysis: The information collected in Phase I and II is organized and interpreted, which generates categories, which become sources of input in the achievement of the defined objectives.

Population

For Otzen and Manterola (2017), the population is the complete number of individuals participating in the phenomenon addressed by a research interest. Ventura-Leon (2017) voiced a standpoint in the same vein by affirming that the population is comprised of all the units that are part of the target scenario. Based on the above concepts, it is necessary to point out that, in this research project, the population is represented by the schoolchildren covered through the Edusalud Service Specialized Unit of the Center for Innovative Resources for Inclusive Education (CREAINN, as per its Spanish acronym), who, in turn, make up an extensive population of the phenomenon under study; the total population is 21 schoolchildren within an age range between 7 and 14 years old. Likewise, the population of parents and/or primary caregivers and teachers is involved. The total population described formed the sample for the purpose of investigative convenience.

However, the data collection tools used throughout the investigation are featured below.

Bibliographic data sheet: This is used to make an inquiry on the literature associated to the disabilities of greater statistical incidence in a regular classroom within the context under study.

Semi-structured interview with students in special conditions, teachers, and parents: Defined by Rios (2019) as a data collection technique, which hinges on the formulation of free-response inquiries aimed at gathering knowledge about the edu-

cational context, taking the areas in which human beings grow towards comprehensive development into account.

Teacher-student observation questionnaire - check list: This instrument is comprised of a set of questions on one or more variables to be measured (Chasteauneuf, 2009 as quoted in Hernandez et al., 2014), which must be consistent with the approach of the issue (Brace, 2013 as quoted in Hernandez et al., 2014), and the information is collected from the cognitive, social and motor settings; this makes it possible to obtain enough information to offer arguments and respond to the proposed objectives.

Results

This section showcases the results of the systematization of the data obtained in the schoolchildren care processes, consisting of medical history records and neurodegenerative reports. This is complemented by psychopedagogical, neuropsychological and other additional records, such as therapeutic reports, which, when consolidated, allow for the formulation of an intervention plan and pedagogical follow-up, and meets the needs of students in the school context, especially inside the classroom.

For a more expansive and better illustration, the processes and reports that meet the specific educational needs of the schoolchildren are submitted, as follows:

- Personal history process through a schoolchild check list.
- Family history process through an interview with parents.
- Academic history process through an interview with a group of teachers, which is complemented by a class observation process that includes the following:
 1. Description of in-classroom behavior
 2. Description of behavior outside the classroom
 3. Description of school performance by area or subject.
- Process of socio-affective development through an interview with the schoolchild.

The structured and described report, known as a neuropedagogical assessment and developed by a neuropedagogy professional, is provided to parents with all explanations and recommendations duly recorded, including the instructions to be delivered to the school, through the head of academic management; this will be shared with the school's psychosocial support team (educational psychologist – social worker), who must meet with parents to explain the commitment of the school and that of the family to comply with the instructions and indications that will boost the academic performance of the schoolchild. By the same token, it is important to show how schoolchildren better respond to teaching strategies and to the student's performance in their social component, that is, within the classroom and in other school spaces.

Lastly, it is necessary that, when providing the neuropedagogical assessment to parents and / or students, the shared support toward the schoolchild in their training and treatment process is made clear through the implementation of all adaptation activities that may be required in the curriculum by the school, according to the results from the evaluations of the child. The neuropedagogical report includes, as an annex, the record of the student's medical history, the details of which are shown below:

Medical history records

The medical history report is made by a multidisciplinary team consisting of a general practitioner, a pediatrician, a clinical psychologist, a physiatrist, among others. In this respect, it has been found that health professionals who care for the schoolboys write down what they observe during the consultations in which they have evaluated the youths; at the end of this report, there is a diagnosis that can be confirmed or be left in the process of confirmation.

Usually, while in the process of confirmation, the health professionals involved and authorized write that the patient is slated to take a series of studies or tests that will lead to the establishment of an accurate diagnostic conclusion. When the diagnosis is confirmed, the licensed health care provider prescribes medication or a therapeutic plan, in which physical therapy, speech therapy, occupational therapy, or neuropsychology assistance, or a combination of these, is usually given, as appropriate. Finally, when the patient is undergoing some therapeutic rehabilitation process, the clinical history offers an account of succinct summaries from the results of the interventions that are being applied.

Then, as the school and the family learn of the schoolchild's diagnosis, the behavioral characteristics of the diagnosed condition can be reviewed, with the possibility of foreseeing the possible difficulties that the schoolchild will face in the classroom and throughout the entire teaching, learning and evaluation process; from this, the curricular adaptations that are required for the entire school period must be implemented.

Neuropedagogical report

Neuropedagogy, according to Selene (2020) as quoted in Roman and Marrugo (2022),

becomes a great support to the educator, who shall not initiate from empirical judgments when detecting any learning barrier or problem in his or her students, but, on the contrary, shall pose an evaluative pondering on a previously studied technical basis, offering benefits to students such as the development of reflections, critical analysis, and application of knowledge in their daily life. (p.3)

On the other hand, according to De Melo (2012) as quoted in Roman and Marrugo (2022), neuropedagogy is a theoretical-practical activity guided by what is known of the brain, with the stimulation of the curiosity of the pedagogy experts, in such a way that they become increasingly committed to an efficient and biologically meaningful (balanced) education in a culturally changing society. The contribution given by the above author means the creation of new methods, perhaps more complex and organized ones, to enable teaching professionals to confront the new challenges arising from both culture and context.

Similarly, Roman and Marrugo (2022) showed that the different research efforts on neuro-learning and cognitive development have shown the correlation between movement and learning enhancement; that is, the greater is the movement (quality of movement), the higher the quality of learning attained. On this aspect, it is considered relevant to start documenting the outstanding experiences of the newer and better achieved learning and its relationship with the application of the program, as well as the improvement of the students' learning, in order to accomplish necessary diag-

nostic tools that help determine progress in learning and, most importantly, acquire strategies to improve it (Roman & Marrugo, 2022).

As determined by Ortiz (2021), the experimentation carried out in a neuropedagogical program and the improvement of learning in the area addressed in the schoolchildren lead to the inference that, when the neuropedagogical program is properly used in the teaching-learning process, there is an improvement in the learning of the students; therefore, it is concluded that the application of the neuropedagogical program exerts a significant influence on the enhancement of the results in the students under intervention.

In their work, authors Roman and Marrugo (2022) demonstrated that the brain can be modified through teaching, and recreational activities can be used to achieve it; also, it must be considered that the brain is sociable, since it can be affected by what happens in its environment. Hence the importance of school learning, because the child is stimulated by relating to those around him or her, whereby the family is his or her first significant stimulus, which will thereafter be perceived from his or her teacher and peers, which will allow him or her to develop his or her abilities and social skills.

Neuropedagogy is a new science said to be responsible for studying the brain as an organ that is capable of being changed and shaped by the teaching processes that we apply to it, thus providing teachers with knowledge, so that they can adapt their teaching methodologies according to how the brain of each of their students learns, achieving long-term educational quality, as their teachings will be adapted to the needs of each student, allowing children to enhance their knowledge. (Román and Marrugo, 2022, p.8)

Currently, the importance of neuropedagogy is observed in the use of neuropedagogical techniques for the improvement of academic skills and to facilitate the learning of school contents.

The neuropedagogical report is made from the reason for assessment declared in the application, which allows, by means of different data sources, a consideration of the authorized professional for its implementation, complemented by a set of recommendations and the definition of a protocol of care by education and health professionals. The above information is consolidated through the personal, family, social and academic backgrounds of the schoolchild. In the academic component, cognitive abilities are evaluated through the registration of intellectual skills by classroom teachers and support teachers. In general terms, the care protocol defined by education and health professionals involves professionals specializing in psychopedagogy and neuropsychology, as well as therapists, among others. Therefore, the scope of participation of the basic professionals for the protocol of care applied to schoolchildren is listed via the different reports generated.

Psychopedagogical report

Psychopedagogy is the social science tasked with the study of the processes of learning and teaching, being a relatively recent discipline, whose practice began in the United States toward the end of the nineteenth century, although the term was not coined until 1908 in France by Persigout, who defined it as “experimental paedology” in his book of essays on Pedagogy (Universidad Internacional de La Rioja [UNIR], 2022).

This discipline is the point where two other sciences converge: Psychology and pedagogy. The psychopedagogical report, as its name indicates, includes the pedagogical and psychological components of the schoolchild, and is developed from direct observation, exploration of processes and devices for learning, scriptural evaluation, and numerical aptitude.

Thus, direct observation allows the evaluation of eye-motor coordination related to graphomotricity in schoolchildren, in terms of strength and association of wrist, forearm and elbow movements, which is associated with the strokes of letters and their directionality. As a complement, visual memory, directed attention capacity; auditory memory, through the repetition of a series of commonly used words; information ordering and association; expressive language and fatigue resistance are evaluated. The psychopedagogical report includes the personal, affective, social, motor, communication, cognition, learning, and curriculum areas, as well as the family and social contexts. That being the case, conclusions are recorded, and recommendations given to the school and family.

In the personal and affective areas, aspects related to physical, oral, visual, auditory health, growth, and development, are evaluated, along with self-esteem, self-concept and acceptance, self-care, decision-making, expression of feelings, responsibility, respect, recognition, in addition to emotional control, stability and restlessness and specific behaviors. In the social area, significant social relationships, interaction with adults, interaction with peers, expression of feelings, self-concept, acceptance or rejection, respect for rules and free time are evaluated.

On the other hand, the motor aspects are evaluated through the use and control of the muscles of the body, with the learning of body coordination, fine and perceptive motor skills, body scheme, balance, coordination, laterality, breathing, relaxation, spatial and temporal perception, rhythm, walking, running, jumping, alternating and simultaneous movements, resistance, strength, flexibility and speed. Communication, as an area related to learning and behavior, includes assessment of reception, interpretation, understanding and expression of information, thinking and ideas by verbal and non-verbal means, the ability to initiate, maintain and end the communicative act.

In the cognitive aspects of great importance for the learning processes, perception, perceptual constancy, shape, color, size, figure, auditory and visual discrimination are evaluated; as well as in attention, capacity for observation for identification of details, periods of time, eye contact, listening, optimization of time, fatigue. Likewise, concentration, which involves executive skills (setting of priorities and order of assigned activities); logical sequence and perseverance in tasks are assessed for their importance in the learning process; also, memory processes of evocation, short- and long-term organization are evaluated. In this assessment, motivation plays an important role in achieving meaningful learning processes.

In learning from the pedagogical component, the adaptation to the process is evaluated, taking the strategies for solving problems in the daily context, as well as the need for help and the attention of guidance into account; the specific learning style is also evaluated. In the curricular aspects related to the learning process, reading, writing and logical-mathematical thinking are assessed. As for reading, the evaluative process focuses on interest, speed, levels of understanding, textual, semantic, and pragmatic competences, the ability to elaborate hypotheses, inference, and argumentation. In terms of writing, grammatical, textual, semantic, and pragmatic competences are evaluated, in addition to logical-mathematical thinking to establish relationships be-

tween objects, situations, concepts, identification, numerical order and sequence, spatial management, mental calculation, basic operations and modeling.

The family and social components allow for an assessment of the following: firstly, dynamics, composition and family functionality, figures, parenting styles, norms, health background, learning and psychosocial, economic situation, assistance and support to tasks and school materials, recreation, family time and affectivity. The second component evaluates, within the classroom setting, all the relationships, environmental and physical conditions, student placement in the classroom, methodology, forms of evaluation and tasks.

Neuropsychological report

Neuropsychology is a clinical discipline that aims to evaluate and rehabilitate psychological sequelae secondary to brain damage, either congenital (inborn) or acquired (emerging throughout development or by a disease or trauma that affected the brain). "The evaluation comprises a series of phases that begin with the initial interview and the collection of reports and end with the issuance of the diagnosis and information to the patient" (Echavarría, 2013, p. 36).

One of those phases is the administration of neuropsychological tests; however, the objective of the evaluation is to obtain the necessary information to answer the evaluation questions and, in doing this, the process is developed with neuropsychological tests, interviews, self-recording exercises, questionnaires, tests or with any procedure that provides reliable and valid information. In this sense, the report that the teacher submits to the evaluator is important, since it allows him or her to acquire technical information in the correct terms that will allow for a more convenient approach that enables the proposition of a treatment plan adjusted to the realities and needs of the educator.

What is observed in a neuropsychological evaluation in general? Generally, the following results are found:

1. Medical history of the evaluated individual: in this section, the professional describes the clinical characteristics observed in the subject under assessment during the interview and details such as family history, diseases that the evaluated individual is experiencing, how the pregnancy developed, if it was a desired, sought, and accepted pregnancy, development from birth, among other important facts.
2. Then a series of results of the tests applied to the evaluated individual are detailed, among which the following are highlighted:
 - 2.1. An IQ test, which helps to determine if there is a cognitive disability. In this regard, it has been determined that a total score between 50 and 69 is considered a mild disability (that is, the subject can be trained), a total score between 35 and 49 is considered a moderate cognitive disability the subject can be trained), a score below 35 is considered a severe cognitive disability and is a subject in need of care, but not fit for education or training. Beyond the fact of information about the cognitive ability of the student, in terms of being pigeonholed into a diagnosis, these results give a profile of skills

and learning opportunities that the student counts on; this allows curricular adaptations in line with the ability to learn that the schoolchild has acquired.

- 2.2. Tests aimed at evaluating impulsiveness: This is part of mental control in practical terms, because everyone thinks and then acts, although this happens in thousandths of a second. The nervous system takes the time to assess whether the behavior you seek to perform might have good or bad consequences, both for yourself and for others, and with that previously acquired knowledge, a decision as to whether or not the behavior is to be performed (whether taking an action from the thought is inhibited or not inhibited). An example of this is the case of a child who, while in the classroom, climbs on a table and says "I'm going to jump into the pool", but his nervous system first checks if he is in a pool, if something bad is going to happen to him (hitting himself, cutting himself, etc.), and if he is going to do something negative to the other children who are with him in the classroom. Part of this system of mind control implies that the same child, before getting on top of the table, has made this series of aforementioned reviews and, likewise, is inhibited or not inhibited from doing what he just thought about.

The scenario described allows to establish parameters of care within the classroom and sets limits about what the boy, girl or young man cannot do. It also allows for a higher level of attention on the behaviors that may be occurring and that are considered a risk for the physical integrity of both the schoolchild and the other pupils in the classroom.

- 2.3. Tests aimed at evaluating attention capacities: Attention is a mental function that allows one or more activities to be carried out correctly and without making mistakes. There are several attention-related sub-modalities, but it is not the objective of this document to detail them. This part ascertains how soon the evaluated individual can specify an activity and, therefore, what the performance timeframes would be for completing an activity in the classroom for that student.
3. Lastly, there are recommendations that the professional provides about how the alterations found in the evaluated subject should be treated.

Therapeutic reports

Following the line of this document, there are students undergoing a therapeutic process, for which parents provide comprehensive reports made by the centers where they are treated, and there is comprehensive detail about which are the behaviors treated in the therapeutic center and through which techniques they are being managed in order to modify them. It is usual for these reports to be very well detailed, which describe each of the professionals who serve the student, namely: The psychologist specializing in applied behavior analysis; the occupational therapist specializing in neurodevelopment; the physical therapist and the speech specialist.

These reports are very useful because they provide inputs to establish didactic strategies within the classroom, which are similar to the therapeutic strategies used by professionals specialized in the care center. Many of these interventions are coherent to what is known as cognitive behavioral psychotherapy, whereby the above means that the student is being subjected to processes in which the inappropriate behavior that has occurred is extricated and new behaviors are introduced, which are expected to be

memorized and applied in other contexts, in such a way that, when they are included in the framework of the academic processes, a positive reinforcement of such behaviors would be carried out and these actions would be guaranteed not to go to oblivion but instead remain perennial in the behavior of the student.

In general, therapists do not describe the technique as such, but do detail the process of application of the technique and the results they find in it, so it is necessary for the teacher to have acquired additional training on these tasks to be able to adapt them to the classroom, so long as these have worked for the therapist in the rehabilitation center.

Intervention plan in the school classroom

The referenced intervention model considers the thematic axes, the acquisition of knowledge and skills from pedagogy and neurosciences in general (psychopedagogy, clinical psychology, neuropedagogy, neuropsychology, psychiatry, etc.), through the experience of education and health professionals, which allows for their incorporation into the school process. This is a general model that can help the teacher initiate the classroom inclusion experience of students with specific needs, who require differentiated educational support.

Next, Figure 1 illustrates the model of the proposed plan, designed to support academic processes, ensure learning and, to some extent, school promotion. The intervention process in the classroom also includes support in the selection of the school center that best suits the needs of the schoolchild, which extends to engaging the best professionals in education and health for comprehensive treatment. The general steps of the proposed model to synchronize what was done in the classroom with what was developed by health professionals in the different disciplines are detailed below:

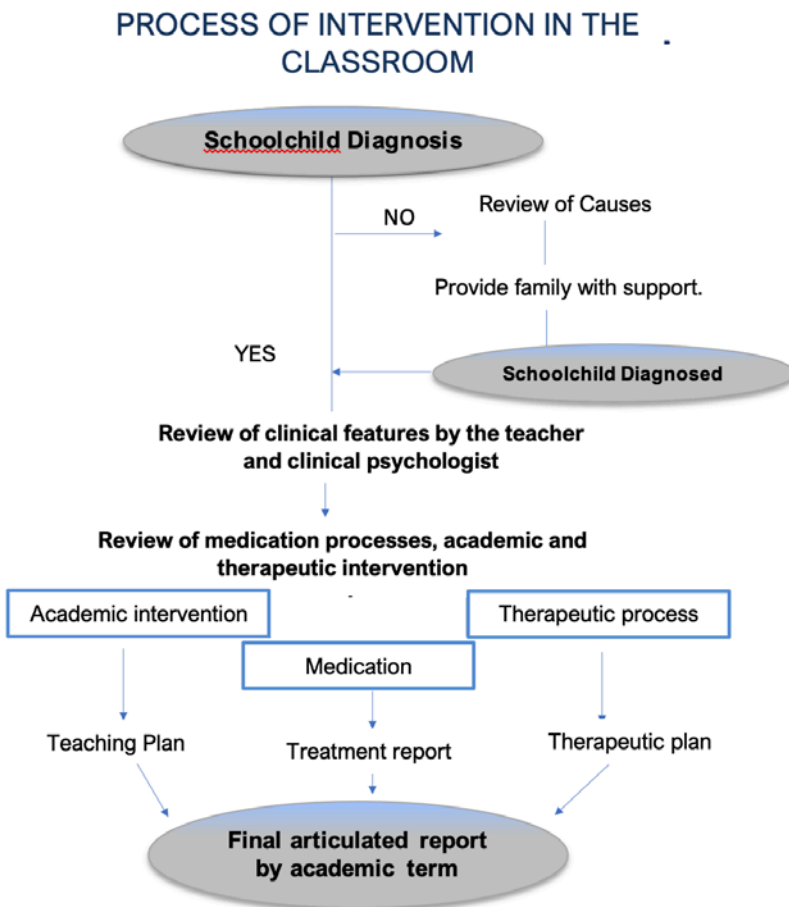
- Verify if the student is diagnosed and, from the diagnosis, proceed to carry out the case study. This means that the teacher should review the clinical characteristics of the students, which could be done in a case review process along with other teachers and with the support of the educational psychologist hired by the school.
- If the student has not clearly defined the diagnosis, the causes of the lack of diagnostic completion must be identified as well as the support required by the family to achieve it.
- When the student has clearly defined the diagnosis, the treatment he is receiving should be reviewed both in terms of medications and in academic and therapeutic interventions. The former aspect seeks to identify the primary and secondary effects that could interfere with the teaching, learning and evaluation process; and the latter one is applied to synchronize therapeutic activities with classroom teaching strategies.
- In the case of medicated students, the educational psychologist must provide the form of treatment ordered by the professionals and share it with the parents so that they can address it with the specialized health professional concerned.
- A copy of the records of the therapeutic activities applied to the student in the different rehabilitation centers, and of the therapeutic plan throughout the same academic terms carried out in the school, must be requested in order to be able to implement, within the classroom didactic, all the strategies that work, at the

same time, as positive reinforcement elements of the appropriate behaviors introduced in the therapeutic center.

- At the end of each academic term, it is necessary to share the results of all the activities from the pedagogical intervention process carried out with the treating team, while requesting reports on the therapeutic plan to be followed in the subsequent academic term with the commitment of generating a final report, which is to be consolidated and articulated based on the health and education components.

Figure 1

Schoolchild in the classroom 2022



Discussion and conclusions

School inclusion is a challenge for teachers, health care staff and parents. Together, and in an integrated way, all parties involved must make great efforts to be able to

provide an adequate education and ensure that the teaching-learning process meets the expected objectives, and that it allows for the inclusion of students with specific needs that require differentiated educational support in a regular classroom, especially schoolchildren with a disabling condition such as Autism Spectrum Disorder (ASD) or Attention Deficit Hyperactivity Disorder (ADHD). Therefore, it is necessary to establish a therapeutic plan that is synchronized or articulated with the classroom teaching plan. This must be tied to the necessity to gain access to unified reports of the areas of support (education – health) in real time to make both therapeutic and teaching adjustments with an optimization of student learning capabilities, the enhancement of their strengths and the improvement of their weaknesses in order to minimize the learning barriers that, in these cases, occur and hinder the learning of the schoolchildren. In this way, the intervention process in the classroom includes the neuropedagogical assessment, a definition of the protocol of care with specialized professionals of education and health areas, attention to schoolchildren by the professionals defined in the protocol, and generation of a consolidated report of learning achievements and health care status.

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