

## DIALOGUES ABOUT MEDICALIZATION OF CHILDHOOD AND EDUCATION: A LITERATURE REVIEW

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**ABSTRACT.** This study aimed to review the Brazilian scientific production on medicalization in the field of education. A systematic search was carried out in the Brazilian literature with the keywords pathologization of life, medicalization of education, learning, teaching and childhood. In all, 40 articles published between 2010 and 2016, indexed in the Scientific Electronic Library Online - SciELO, were selected for analysis. The information was analyzed based on the thematic content analysis proposed by Bardin. The results showed a diversity of understandings about the concept of medicalization. Some articles reported the occurrence of educational practices that produce suffering and the individualization of school complaints, evidencing a disagreement between the production of literature and the daily routine of schools. There has been also a significant increase in diagnoses of ADHD and drug therapies in the treatment of school complaints, thus expanding the pharmaceutical industry by conceiving children as potential consumers of medication. Finally, new studies are indicated to broaden the sources of research, incorporating also theses and dissertations. It is also recommended the realization of research with children, relatives, and the school community so as to analyze the impact of medicalization on the subjectivity and performance of students.

**Keywords:** Medicalization; education; learning.

## DIÁLOGOS SOBRE MEDICALIZAÇÃO DA INFÂNCIA E EDUCAÇÃO: UMA REVISÃO DE LITERATURA

**RESUMO.** Este trabalho teve como objetivo revisar a produção científica brasileira sobre medicalização no âmbito da educação. Foi realizada uma busca sistemática na literatura brasileira com as palavras-chave patologização da vida, a medicalização da educação, da aprendizagem, do ensino e da infância. Ao todo, foram selecionados para análise 40 artigos publicados entre 2010 e 2016, indexados na Scientific Electronic Library Online - SciELO. As informações foram analisadas com base na análise de conteúdo temática, proposta por Bardin. Os resultados evidenciaram uma diversidade de compreensões sobre o conceito de medicalização. Alguns artigos relataram a ocorrência de práticas educativas produtoras de sofrimentos e individualização da queixa escolar, evidenciando um descompasso entre a produção de literatura e o cotidiano da escola. Destaca-se ainda um significativo aumento

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de diagnósticos de TDAH e de terapias medicamentosas no tratamento da queixa escolar, expandindo, conseqüentemente, a indústria farmacêutica ao conceber a criança como um potencial consumidor de medicamento. Por fim, indicam-se novos estudos que possam ampliar as fontes de pesquisa, incorporando-se também teses e dissertações. Recomenda-se ainda pesquisas com crianças, familiares e comunidade escolar que possam analisar o impacto da medicalização na subjetividade e no desempenho dos estudantes.

**Palavras-chave:** Medicalização; educação; aprendizagem.

## **DIÁLOGOS SOBRE MEDICALIZACIÓN DE LA NIÑEZ Y EDUCACIÓN: UNA REVISIÓN DE LITERATURA**

**RESUMEN.** En este estudio se tuvo como objetivo revisar la producción científica brasileña sobre medicalización en el ámbito de la educación. Se realizó una búsqueda sistemática en la literatura brasileña con las palabras clave patologización de la vida, la medicalización de la educación, del aprendizaje, de la enseñanza y de la infancia. En total, se seleccionó para análisis 40 artículos publicados entre 2010 y 2016, indexados en la ScientificElectronic Library Online - SciELO. La información se analizó sobre la base del análisis de contenido temático propuesto por Bardin. Los resultados evidenciaron una diversidad de entendimientos sobre el concepto de medicalización. En algunos artículos se relataron la ocurrencia de prácticas educativas productoras de sufrimientos e individualización de la queja escolar, evidenciando un descompaso entre la producción de literatura y el cotidiano de la escuela. Se destaca un significativo aumento de diagnósticos de TDAH y de terapias medicamentosas en el tratamiento de la queja escolar, expandiendo, conseqüentemente, la industria farmacéutica al concebir al niño como un potencial consumidor de medicamento. Por último, se indican nuevos estudios que puedan ampliar las fuentes de investigación, incorporándose también tesis y disertaciones. Se indican también investigaciones con niños, familiares y comunidad escolar que puedan analizar el impacto de la medicalización en la subjetividad y en el desempeño de los estudiantes.

**Palabras clave:** Medicalización; educación; aprendizaje.

### **Introduction**

The inheritances of the hygienist movement in Brazil, marked by the intervention of health sectors on the schooling processes, have as a current unfolding a startling of diagnoses of children and adolescents in the school period. The term medicalization has been used to problematize this growing phenomenon, which in the heart holds the idea of an appropriation, on the part of medical sciences, of conducts that are deviant from the hegemonic norm, classifying them as diseases that need to be treated and cured (Barbiani, Junges, Asquidamine & Sugizaki, 2014; Zorzanelli, Ortega & Bezerra Junior, 2014; Gaudenzi & Ortega, 2012). Besides provoking a change of paradigmatic in the way of understanding the health and disease, this causes a sudden transformation of social and political phenomena and singular characteristics into symptoms that are explained by the scientific discourse, especially the biomedical discourse.

This transition increases the belief that behaviors and feelings can have physical and organic causes and origins and therefore can be treated and cured. In the field of education and the process of teaching and learning, it can be affirmed that the phenomenon of medicalization is very present in the school context. In retrospect, schools have never before sent so many students with school complaints to service centers such as psychology school courses and medical and psychological offices (Collares & Moyses, 2010; Decotelli, Bohre, & Bicalho, 2013). These referrals make it evident the logic of solving problems of the school context outside the scope of the school. That is, students who are unable to follow the lessons, who do not learn the contents taught in class, and who maintain a behavior that is not expected, may end up being characterized as presenting a suspected disorder, becoming every day more often, and in greater numbers, object of psychiatry manuals. This leads to the belief that problems in the schooling process are often justified by supposed learning disorders. School problems, which could be solved with pedagogical interventions, are now characterized as neurological disorders requiring medical intervention and drugs.

The vicissitudes of the learning process of children and adolescents have placed several alleged disorders as a highlight in the current scenario. Dyslexia, ADHD, dysarthria, dyscalculia, dyslalia, echolalia, and agraphia have often been used as justifications for school failure in the schooling process. The transformation of difficulties in the teaching and learning process into disorders is permeated by organicist assumptions, which try to attribute the cause of non-learning to the individual, reproducing forms of exclusion and silencing, neglecting the complexity intrinsic to the schooling processes (Lima & Caponi, 2011; Decotelli et al., 2013; Figueira & Caliman, 2014).

The medicalization process is an attempt to homogenize learning and behavioral patterns. There has been a gradually increasing social and political process of homogenizing human diversity, which is established on the basis of social norms, defining what is considered appropriate for behaviors and ways of learning. When the subject does not conform to these norms, he is considered deviant, and this often leads to the use of medications prescribed by a specialist in the attempt to 'to eliminate the problem' (Lemos, 2014).

Medicalization of children and adolescents within the framework of education also exempts all other involved instances from responsibility, generating a return to the student's blame for the expectations of adults and of the school when his behavior does not conform to the required standards. When the guilt is attributed to someone, the other involved instances are declared non-guilty, making it difficult to understand the relationships that promote and maintain the diagnosis (Collares & Moyses, 2010).

Thus, as in the medicalization process, only the subject is treated, it is affirmed that the problem exists only in the subject, exempting the entire social and political context that give origin to the legitimations and controversies regarding these alleged disorders. The understanding of macro-structural factors is fundamental to conceive the complexity of the multiple determinations of this phenomenon.

Thus, the present study aims to identify the production of knowledge about medicalization in education. In order to do so, the main productions related to the theme were analyzed based on the contributions of Socio-Historical Psychology and Critical School Psychology, with emphasis on the production of knowledge, the practices that have been developed in schools, and in the articulations that have taken place between psychology, health and education.

## Method

The present research is an integrative literature review. Information was obtained in June 2016 in the Scientific Eletronic Library Online – Scielo data base, an electronic library that gathers the main magazines of psychology, education and health of Brazil.

In the search system of the database, the following descriptors were used: medicalization; learning; teaching; school; childhood; and pathologization. One hundred and thirty four (134) works were found. From this number, a selection was made through the reading of the titles and abstracts, after what 66 works related specifically to the theme of this research were kept. After this selection, it was observed that most of the production of articles happened from 2010 to 2016. This period purposely coincides with the launching of the Forum on Medicalization of Education and Society, held during the First Seminar on Medicated Education: Dyslexia, ADHD, and other supposed disorders, in 2010, at the Paulista University (UNIP) in São Paulo. In view of this information, it was decided to select articles published in this period, totaling 40 papers.

To analyze the information obtained, we used the content analysis technique proposed by Bardin (2011), which assumes that the categorization, description and interpretation of the data are essential steps of the analysis process. The articles were thoroughly read and categorized. The following information was summarized: authors of the article, central themes, objectives, method, main concepts, and a final topic about general observations and impressions about the study.

Having filled the table with the information of the articles, this content was categorized, indicating the central theme and a synthesis of the work. The central theme was characterized based on the general objective of the study, the arguments presented by the authors, supported on epistemological data and reports of experiences that underpinned the discussion. The synthesis was accompanied by direct citations to maintain the reliability of the ideas presented by the authors. The description aimed to capture the complexity of the expressed meanings and to systematize them for the subsequent step of analyzing the information. With this step, the aim was to go beyond the descriptions, establishing an in-depth understanding of the themes, relating them to each other and to the knowledge produced in the area. Although this process was carried out with all articles investigated, not all appeared in the results; the most frequent themes were highlighted.

## Results and Discussion

The analysis of the articles revealed five themes: the first deals with the different approaches presented to the term medicalization, bringing to the fore the precursors that since the 1960s have been dedicated to understanding how medicalization affects people's lives and produces new ways of being; the second theme specifically addresses the medicalization of school failure and the transformation of learning problems into medicalization problems. The third one deals with the diagnosis of ADHD; the fourth theme is dedicated to life management, biopolitical approach, conflicts and interests of the pharmaceutical industry in the expansion of the market for children and adolescents. Finally, the fifth theme presents studies that contextualize some practices without the use of medicines.

## The transitivity of the medicalization concept

The concept of medicalization is used in a recurring way and with a great diversity of understandings. Thus, to enter into this debate, it is important to understand the historical path and metamorphoses of this concept, which originated in the late 1960s, referring to the growing appropriation of man's ways of life by medicine. However, it can be said that much earlier, in the eighteenth century, the birth of modern medicine and the hygienist movement already reverberated. At the end of the 20th century, such movement was no longer restricted to the medical field, as a consequence of the diffusion of medicalization by non-medical actors (Zorzanelli et al., 2014; Gaudenzi & Ortega, 2012).

However, before starting the discussion about the authors who spread this concept, mention must be made about Michel Foucault, an important reference on the theme. Although he never used the term medicalization, in the late eighteenth and early nineteenth centuries, he already portrayed a medicine that, using the power of discourse, employed technologies for the purpose of sanitizing and disciplinarization bodies, establishing measures of control over individual and collective bodies, enabling the increasingly refined exercise of power over life (Gaudenzi & Ortega, 2012; Sanches & Amarante, 2014).

According to Gaudenzi and Ortega, (2012); Decotelli et al. (2013); and Sanches and Amarante (2014), in the Foucaultian perspective, the concept of biopower is shaped in two ways: one oriented by discipline, characterized by institutions such as schools, hospitals, factories, where the docilization and disciplinarization of the body takes place. The other way is biopolitics, which does not directly affect the body of the individual, but in the species-body, the population as a human species, support of biological processes, not only in proliferation, birth and mortality, but also in the level of health.

Although the discourses are in synchrony, it is important to make a selection, because Foucault describes a period that precedes others to which more contemporary authors dedicate their work. In a more recent setting, one of the main interlocutors who developed a theory about medicalization is Austrian Ivan Illich, who believed in the valorization and autonomy of the subject in the way of dealing with his illnesses. However, with the advent of modern medicine, suffering, pain and death have passed into its domain, radically interfering in the way people understand their health/illness process. For Illich, one of the greatest epidemics of our time is caused by medical iatrogenic diseases, that is, diseases resulting from the exaggerations of medical actions, resulting from adverse effects caused by medical treatments and actions of health professionals. In the author's view, medicine imposes medicalization on society, which, in turn, loses its power to choose before technical/medical knowledge (Sanches & Amarante, 2014; Gaudenzi & Ortega, 2012).

With this transformation, people have become consumers, with less ability to seek autonomy for their health. Illich argues that medicalization is part of popular culture, as the individuals accept, as natural, the fact of relying on medical care throughout their life, submitting themselves to the prescriptions of health experts, allowing them to control their steps and their lives, being tamed, becoming part of specific and specialized alcoves throughout their existence (Baroni, Vargas & Caponi, 2010; Lima & Caponi, 2011; Gaudenzi & Ortega, 2012; Zorzanelli et al., 2014; Sanches & Amarante, 2014; Barbiani et al., 2014; Carvalho, Rodrigues, Costa, & Andrade, 2015).

In the same direction as Illich, Thomas Szasz uses the concept of medicalization to explain that medicine appropriates the transgressive and deviant behaviors of current social norms to treat them as medical disorders. The author problematizes the social production

of disease, emphasizing that the redefinition of all kinds of life problems as psychiatric disorders constitutes a territorialization, an expansion and institutionalization of psychiatric expertise (Zorzanelli et al., 2014).

Another author who focused on the concept of medicalization was Irving Zola. He proposed that medicine has acquired the function of social regulation previously attributed to religion and Law, configuring a new repository of truth. For him, medicine has managed to occupy a space that leads society to believe that, really, people can become better when they are committed to finding a series of healthy behaviors. That is, medical competence is largely related to the desire of individuals and groups of seeing medicine making use of its power (Zorzanelli et al., 2014).

Very close to Zola's thinking, Peter Conrad, more towards the end of the twentieth century, stood out for extending the concept of medicalization to other spheres, for example, to specific groups that collaborate with the medicalization process. This is the case of alcoholism, which assuming the status of disease, claimed movements and groups of alcoholics, corroborating and promoting the acceptance of this problem as a disease (Baroni et al., 2010). For Peter Conrad, medical imperialism is not enough to explain medicalization. That is, it is not unidirectional. There is a complex social interaction involving multiple actors in which the medicalized is active.

As it is evident, the concept of medicalization spread since the 1960s and expanded its scope, reaching a series of phenomena which could be medicalized, such as childhood, senility, deviant behavior, pregnancy, shyness, sexuality, masculinity, overweight, memory, sadness, love, anguish and other feelings. As the authors of this chapter show, potentially new medical conditions arise that dictate normal patterns for each of these phenomena; new disorders, new catches with a supposed scientific legitimacy.

### **Medicalization of school failure**

In a transversal way, the articles analyzed in this study highlighted medicalization as a problem that affects the education system and the teaching and learning processes. To deepen this subject, we selected 13 articles from the literature review, observing, in advance, that all of them presented a critical perspective on medicalization.

However, the reports in the studies show that, in practice, there are still many interventions that generate suffering and individualization of school complaints, revealing that there is a mismatch between what is produced in literature and what is practiced, reiterating traditional tendencies of pathologization of school obstacles. In the articles found, the following themes stood out: criticism of the medicalization of education, processes that transform teaching into a medical problem (Cruz, Okamoto & Ferrazza, 2016; Meira, 2012; Christofari, Freitas, & Baptista, 2015; Sanches & Amarante, 2014); poor behavior treated as disease (Sanches & Amarante, 2014); comparative studies in the perspective of parents, teachers and health professionals (Cunha, Dazzani, Santos, & Zucoloto, 2016; Leonardo & Suzuki, 2016; Cruz et al., 2016); other forms of exclusion, such as continuous progression, highlighting the pathological arguments that support individualizing explanations about school failure (Viégas, 2015); and medicalization as a device of control and discipline (Meira, 2012; Heckert & Rocha, 2012).

On the latter theme, Heckert and Rocha (2012) point out that the medicalization of learning and the judicialization of school issues has become a biopolitical device to control the modes of existence. According to Meira (2012), medicalization is an unfolding of the pathologization of educational problems. It has often served as a justification for the

maintenance of the exclusion of a large contingent of students who, although remaining in schools for long periods of time, never actually absorbed the school content.

A comparison about the perception of education workers and health professionals about the production of school complaints make it possible to identify some discrepancies. For example, Cunha et al. (2016) identified that educators maintain traditional tendencies to treat school impasses as diseases and outsource their confrontation. Among health professionals, the authors identified a predominance of a critical and expanded understanding of educational problems and established a partnership with the school to address and overcome them.

Some articles report the tendency to restrict the analysis of children's behavioral and learning symptoms to neurological and physiological issues. The studies of Silva, Serralha and Laranjo (2013) identified this situation when evaluating children with school complaints, referred for assistance by multiprofessional teams. The authors pointed out that all children aged 6 to 8 years who participated in the study used medication, reinforcing that there is still a tendency to adhere to pharmacological treatment. On the other hand, from an interdisciplinary analysis, they verified that aspects of the children's life history and the personal difficulties of the caregivers were intrinsically related to school complaints.

Based on the testimony of 10 teachers from three public schools in Paraná, Leonardo and Suzuki (2016) conclude that students' behavior after diagnosis and drug therapy considerably changes. When asked about what led them to refer a student to the doctor, a common perception of all teachers who participated in the study was linked to the behavioral problem, something inappropriate for the classroom. Cruz et al. (2016) corroborated these findings when they identified that, in the perception of parents and teachers, children who present learning or behavioral difficulties are categorized as an a-historical biological body, devoid of social and affective life. In addition to this argument, the old stigma of the poor and unstructured family can be used to blame the child and the people responsible for him for not learning (Cord, Gesser, Nunes, & Storti, 2015).

The work of Silva et al. (2013) pointed out that there is a tendency for learning and behavior problems to be attributed to the student, disregarding other important factors that contribute to school complaints. According to the authors, after referral to health services and prescription of treatment, teachers declare that the 'medicated' student can concentrate more and carry out the activities in the classroom, reaching a satisfactory production. In another study, Leonardo and Suzuki (2016) warned about the consequences of the medicalization for childhood, because children become apathetic, directly affecting the way they relate to their peers.

Finally, the studies show that there is a discrepancy in the critical perspective addressed in the articles, because, in practice, pathological interventions are still observed. The tendency to treat bad behavior as a disease fuels the idea that school problems and difficulty in the schooling process are to be centered in the student and their consequence is a disease. As a consequence, problems of the school context and educational policies become 'outsourced' to health professionals. These, in turn, prescribe a pharmacological treatment that changes the students' behavior, which in an inappropriate way, can bring harmful effects for the students.

## **Attention Deficit Hyperactivity Disorder – ADHD**

A recurring subject in the articles that address medicalization of education refers to ADHD. According to diagnostic manuals (DSM V and ICD 10), the characteristics are around

basic symptoms of inattention, hyperactivity and impulsivity. Seven articles of selected texts specifically addressed this theme. To analyze the variations of the medicalization concept, Benedetti and Anache (2014) carried out a bibliographic study and concluded that there was no consensus in the research. They reinforced that the epistemological bases used by researchers that study the disorder influence and define positions, therapy options, ethical behavior and even the certainty of the existence of this disorder.

Another point highlighted in the articles refers to the psychosocial effects of the diagnosis of students with school complaints and the family relationship. Signor (2013) carried out a case study from the historical-cultural perspective, comprising signs of inattention/hyperactivity as a result of the quality of social interactions in the context in which the child is inserted. Silva et al. (2013) analyzed the demands of a multiprofessional team on ADHD complaints and observed the demands that superseded the initial complaint related to aspects of the child's life history and the personal difficulties of the caregivers themselves.

In a similar study, which heard reports from parents and teachers, Cruz et al. (2016) identified that despite the fact that they informed the physician of the inefficiency of using the medicine, this has been the fastest therapy, focusing solely on the student's difficulty. In addition, there is an enormous lack of awareness of the disease on the part of the family, making it easier for parents/guardians and teachers to accept the diagnosis, making it useful for the society and the environment of the children, but not for the child (Brzozowski & Caponi, 2013).

As a consequence of the diagnosis, the study by Carvalho, Brant and Melo (2014) indicated the common trends of transgression of medication use for the treatment of ADHD. The use of medication for the treatment of ADHD has grown on a large scale. According to Collares and Moysés (2010), Brazil is the second largest consumer of psychotropics in the world, with the most prescribed drug being methylphenidate, marketed under the names Ritalin® and Concerta®. There is severe criticism about these drugs, including chemical dependence, drug addiction, high levels of toxicity, and even possibility of sudden death (Collares & Moysés, 2010; Decotelli et al., 2013). It is observed that the parents' adherence to the drug therapy is probably due to the improvement in the attention capacity and control of the child's agitation. However, this ease of acceptance may be related to the family's lack of understanding of the side effects that the drug may cause. Furthermore, the use of medication is the most obvious way of realizing that the problem/error is exclusively of the child, and that the remedy will solve/correct it, as its name suggests (Concerta®).

When children are seen to present an inappropriate behavior, they come to be understood as sick individuals, an interaction of classification occurs with the person. According to Brzozowski and Caponi (2013), when these children are conscious of their classification, they can modify their behavior by being able to explain what until then was inexplicable or seen only as a characteristic of the subject.

In the same direction, Baroni et al. (2010) propose a discussion about the identification of the subject (children, adolescents and adults) with the name of a diagnosis. For the authors, the diagnosis produces senses and interacts with the existences. In the article, they propose the exercise of seeking points of resistance to the biologization of life, which has been crystallized in the course of western history, postulated by biological medicine. They also propose to think of other forms of subjectivity, in which the problem of health is inscribed and that allows the subject to participate in this experience in a critical way.



## Conflicts and interests of the pharmaceutical industry

Faced with this contingent of diagnoses produced, it is important to note that there is an appropriation of childhood by medical knowledge. In a study on the task-force of developmental psychiatry, Lima and Caponi (2011) discuss the efforts made by medicine to discipline and/or control behaviors in childhood and adolescence, in favor of mental health. According to the authors, psychiatry has penetrated the school and health spaces in order to identify and diagnose as early as possible populations at risk, affected by mental illness. They also emphasize that all this machinery is financed by the pharmaceutical industry, which perceives in children and adolescents potential consumers of medicines.

For Heckert and Rocha (2012) and Lima and Caponi (2011), the contemporary school has become a strategic space for managing life and risks. The evidences of this phenomenon are the state education policies, that have little dialogue with the needs of the population involved. The teaching and learning processes serve as devices to produce results, mainly focused on the labor market, by optimizing attention and appropriate behaviors through discipline and control.

Together with the management of life and risk, one of the main points of tension presented by the articles refers to the interest of the pharmaceutical industry on psychic suffering. Among the studies, Lima and Caponi (2011) discuss the financing of the pharmaceutical industry, supporting the task-force of psychiatry in identifying and treating mental illnesses, and, consequently, draining its production. Palma and Vilaça (2012) propose a debate on the ethical conflicts, arising from the devices used by the pharmaceutical industry in the research, production and dissemination of medicines. Decotelli et al. (2013) make a retrospective approach, showing the significant increase in drug consumption to treat alleged learning problems. The work of Camargo Jr. (2013) proposes a critique of pharmacologization which understands that for each ill, there is a pillcapable of healing it. This critique interacts with medicalization. The study by Carvalho et al. (2014) analyzed the consumption and use of drugs as a productivity device, describing the common trends of transgression of its use. Finally, Galindo, Lemos, Lee and Rodrigues (2014) make a wide discussion of the pharmaceutical industry and the field of political-economic struggles and their disciplinary relations of power.

Among the reasons cited as a justification for understanding the considerable increase in the use of medicines, the strange relationship between the pharmaceutical industry and physicians is mentioned. Palma and Vilaça (2012) cite as an example the fact that more than 80% of the trials sponsored by the pharmaceutical industries were carried out in academic research centers. These cooperation treaties generally involve financial counterparts and/or laboratory improvement, generating benefits for both parties. Thus, research centers are interested in companies, as they offer researchers to design and sign clinical trials and publications in renowned journals (Palma & Vilaça, 2012). However, this strange embarrassment may be a threat to the reliability of the research. Investing funds may jeopardize the completion of the research, especially at times when these results go against the interests of the sponsor.

In view of these data, it is perceived that education and health professionals have contributed to the growing request for reports that naturalize the non-learning as biological and submit the difference to the sign of pathology. But, parallel to this, there is a specialized arsenal ready to be fired to prescribe reports on the adjustment of behaviors.

## **Non-medical practices**

To speak of non-medical practices, two questions are central to this reflection. The first concerns those who are interested in medicalizing the teaching and learning processes and behaviors. Some authors point out directions, as already mentioned in the course of this text: children as a potential consumers of medicines, expanding their scope of users of the sickness industry; process of production with the optimization of attention, concentration, and behavior in the capitalist world; institutions that provide conditions of access and guarantee of right through pathologization; control and discipline of bodies to a modern society, order and progress (Lima & Caponi, 2011; Meira, 2012; Palma & Vilaça, 2012; Decotelli et al., 2013; Carvalho et al., 2014; Carvalho et al., 2015; Camargo Jr., 2013; Galindo et al., 2014; Sanches & Amarante, 2014; Figueira & Caliman, 2014).

The following question is cause of concern: how is it possible to deal with these processes that transform ways of being and learning in diseases? Other unfolding questions arise, for example, in what way is it possible to promote practices that move in the countercurrent of the homogenization of conducts and disciplinarization of bodies, discussing, in the territory, possible actions before the conflicts and tensions produced in the same geographic space? Complex demands require intersectoral actions, in the interface with health, social assistance, education, among other social protection tools. A possible answer to these questions is the proposal of intervention in the relation of the children with their caregivers, conceptually denominated Child Safety Circle. Becker, Souza, Oliveira, and Paraguay (2014) report a successful experience with the creation of a protection network for children, consisting of promoting communication and collaboration between health teams and families, articulating all those responsible for the children.

Another perspective concerns the insertion of psychology in schools. In this sense, we have the experience of traineeship in school psychology, carried out in a private institution in Rio Grande do Norte, involving intervention actions with teachers, parents and students. According to the study, providing a space where people can talk what they think and feel allows the strengthening of the potential of both students and professionals in schools. Furthermore, it makes it possible to perceive the complexity of the school relations and how much reductionist explanations, such as the family structure, the violence of the communities and the supposed diseases of not learning seek to reduce and blame the student, the family, teachers and managers.

Advancing towards the social commitment of psychologists in the perspective of human rights, Gesser (2013) brings to the discussion the need to break with the normative, pathologizing and medicating patterns of human diversity. For the author, it is necessary to invest in the empowerment of subjects and in recognition of their humanity. The intervention should be based on an ethical-political perspective to understand the phenomenon of medicalization at the intersection with social class, gender, generation, ethnicity, sexuality (sexualities), disability, religiosity and other markers that make up the subjects.

## Final Considerations

In this research, we sought to investigate, in the production of Brazilian literature, the medicalization of education. Several authors have brought to the debate the medicalization of children and adolescents in the process of schooling as a recent phenomenon, capturing ways to deem them deviant, so as to treat them from a medical perspective, and in many cases with the administration of medicines.

The analysis of the selected articles leads us to think: what has the paradigm of medicalization and drug treatment produced in children and adolescents and in their school life history? In a way, the studies presented in this literature review are maybe insufficient to answer this question, but there is no doubt that the amount of children being diagnosed with problems in the schooling process and treated outside the school is exorbitant. It is evident that a diagnosis eases the anguish, strips the student of pejorative visibility (misbehavior, laziness, rowdy, etc.) and imprints the disease label on him, on the family, and on teachers. But could such unbridled growth of diagnoses merely be the disinterest of students in school? Is there really a difficulty that affects only the learning process?

It can be seen that formal education is a field permeated by risks and possibilities. The institutionalization of the teaching process allows the emancipation of the subject, developing criticality and potentialities based on meetings and mediations. At the same time, institutionalization can be at the service of a perverse logic of excluding inclusion, aiming at control and discipline. The medicalization of problems in the schooling process is an example of this, when the daily educational demands are outsourced, so that they can be solved and the boy or the girl return to the institution well behaved and obedient. It can be considered that this logic degrades human rights, limits the construction of democratic relations and operates as a biopolitical strategy to control society.

This study also calls for attention to the need to build non-medical practices in order to make the school a tool for children to learn and participate in the way they are in the world. In order to do this, it is necessary to walk the opposite path to logic, which seeks an organic cause for the problems of different orders, including in its reading a system of education that very poorly teaches children, youngsters, and adolescents and that treats their educators also very poorly. These factors are necessarily intertwined with the medicalization and public education policies adopted in the country.

Another issue is related to the use of amphetamines in the treatment of ADHD and other supposed disorders. In fact, it is possible to identify a change in the behavior of the children who start to use this medicine. But, in the long run, does this treatment help the diagnosed students? What are its impacts? Could this diagnosis be detrimental to development in any way? A generation of medicalized children, youngsters and adults is being produced to meet the expanding interests of the pharmaceutical industry. What will be the impacts of this on the future of these people? Certainly, research must advance in order to find more and more strategies to deal with differences. Thus, given the requests that still continue to arrive to clinical psychologists to evaluate children who deviate from the norm, it is suggested that new studies be carried out also incorporating theses and dissertations banks. It is also indicated to conduct further research with the database of psychology schools and psychology clinics to investigate what kind of practices the psychology and related fields have promoted in relation to school complaints. Another indication for future studies is to conduct research to listen to children, parents and teachers about the impact of medicalization on subjective processes.

Finally, the theme of the campaign of the National Committee of Human Rights of the System of Psychology Committees of 2011 is rescued: 'In the name of protection and care, what forms of suffering and exclusion have we produced?' The aim of the campaign was to reflect on the veiled and subtle forms of violations of rights generated in the name of protection and care. The scores of this campaign point to the importance of understanding phenomena such as suffering as social and political phenomena, constituted by the intersection of social markers of differences in aspects such as gender, race, poverty and disability. The exposure of difficulties within the school, the way it happens, acts as a device that blames exclusively the subject to the detriment of a whole system that is flawed. Thus, the practice of medicalization of childhood can produce experiences of segregation, reproducing types of violence that exclude children from within the school, further increasing the ethical-political suffering. Likewise, this review serves to think about the practice of psychology, differentiating practices that promote powerful encounters from those that imprison, discipline and control.

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