

Scientific Dissemination about Childhood Depression through Social Media as a Pedagogical Method

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Abstract

This article is an excerpt from my master's dissertation entitled "Child depression: Raising awareness of education professionals involved in primary education 1 and the population in general, through information based on neuroeducation", in which one of the objectives was to disseminate information about childhood depression based on scientific literature through social media as a pedagogical method, which can sensitize the general population. The purpose of this research is to verify through the word cloud what the terminology "child depression" means for the general population and to investigate the contribution of posts on social networks on the internet, specifically, on Instagram, providing democratization of access to information and the inclusion of the general population in the debate on some topic, in the case of this research, about childhood depression. Thus, it is intended to qualitatively analyze the answers regarding the word cloud and quantitatively the results obtained on the Instagram platform, such as the number of likes, shares, saves, comments and others. It is concluded that, despite the results found, we need to continue disclosing information based on scientific literature about childhood depression and child mental health, using as a pedagogical resource the social media that are increasingly being used in the scientific community.

Keywords

Scientific Dissemination, Social Media, Childhood Depression, Child Mental Health, Education

1. Introduction

Nowadays, for the most part, the act of doing research no longer consists of con-

stantly walking the corridors of public libraries.

It is worth emphasizing that today the first procedure when searching for themes for the elaboration of a research is in electronic journals, databases and virtual libraries, or even in web search engines, such as, for example, the Google platform (Vicente, Corrêa, & Sena, 2015).

In this sense, the presence of the internet in our lives is our current reality, becoming an increasingly consolidated practice. The so-called “age of cyberculture”, in which scientific dissemination aims to achieve new ways of exposure by being carried out on social media through the internet with platforms such as Facebook, Instagram, YouTube, among others; being these media more popular, with more elaboration of opinions and debates (Torres, 2016).

Giardelli (2012: p. 22) clarifies that “we live in the power of connections, collective learning, social sharing and an unprecedented exposure to new ideas and approaches”.

Barbosa and Sousa (2017: p. 279) point out that the growing use of social networks on the internet, also commonly known as social media, has intensified with the advent of the so-called Web 2.0, a term used to designate what would be a second generation of communities and services on the Web platform, based on its use of applications such as social networks and Information and Communication Technology (ICTs) (Barbosa & Sousa, 2017: p. 279).

Currently, web 3.0 is already being discussed, that is, the web that no longer brings links between communities of individuals, but seeks links between information. Social media, therefore, provide interactions between its users and the information available virtually (Barbosa & Sousa, 2017).

The meaning of social networks, according to Tomaél and Marteleto (2006: p. 75) is “a set of people, organizations or other social entities connected by social relationships”. However, as discussed in this chapter, social media is also tied to the internet (Castells, 2001).

With the advent of the internet, social networks took on a new meaning, enabling greater interaction, communicability and expanding “the visibility and reach of research carried out and its dissemination to the specific community and society in general.” (Príncipe, 2013: p. 197). As highlighted by Recuero (2009), social networks now reach various global groups, without barriers of time and space.

Therefore, one of the most outstanding aspects of social media (SM) is its capacity to disseminate scientific knowledge and relevant information based on scientific literature, such as the possibility of collaboration and the transformation of society. SM aims to democratize access to scientific knowledge such as scientific research and new discoveries in science, bringing the general public to debate them.

In this sense, the use of social media platforms for the dissemination of information based on scientific literature involves the “use of resources, techniques, processes and products (vehicles or channels) for the dissemination of scientific,

technological or innovation-related information to the public layman” (Bueno, 2010: p. 2).

Valerio (2012: p. 154) points out that the popularization of science and scientific dissemination needs to be adapted “in accessible languages, for the entire receiving universe. Here, the definition resides essentially in the non-specialized public, receiving the information.” The conceptualization of scientific dissemination, according to Abigail (1996: p. 397), aims at “the use of processes and technical resources for the communication of scientific and technological information to the general public”.

Scientific dissemination, therefore, performs two essential activities, which is the democratization of access to scientific knowledge, thus establishing possibilities for scientific literacy. As a result of these activities, it favors the inclusion of citizens in the discussion of specific topics, which are important, impacting their lives and their behaviors through the information being presented, such as childhood depression, and mental disorders that affect children, among others (Bueno, 2010).

Unfortunately, there are no scientific articles that present facts about spreading child depression through social media so far. However, as already exposed the importance of using social media as a tool for using content dissemination as a pedagogical method, it is paramount that health professionals, and researchers, benefit from these tools to disseminate important information to the general population.

This research aims to demonstrate the beneficial consequences of scientific dissemination through the use of social media about childhood depression.

Given the above, scientific dissemination through social media is the starting point for professionals from different areas, as well as for scientists. It is inconceivable not to reflect on the countless alternatives promoted by social networks on the internet, enabling the communication of scientific knowledge on various subjects with the general public. This interactivity provided through comments, likes, saves and shares will be able to stimulate the dissemination of information based on science, promoting the fight against so-called Fake News, data, reflections and results about the use of social media platforms as pedagogical tools.

2. Methodology

For the construction and choice of a methodology, it is necessary to consider its relevance in the structuring of the research work, that is, it is the foundation of the content of research, where a link between the idea and the real begins, questioning oneself reality, as well as which paths research should follow in order to build knowledge.

In accordance with Demo (2003), the purpose of research as a theoretical-methodological instrument is to form new knowledge, in a grounded manner, aiming to integrate existing knowledge spaces. Through the delimitation of the theme and its objective, this research was developed with a qualitative and

quantitative approach.

Regarding the qualitative analysis, we used the “Word Cloud” in order to know what the term “child depression” represents for different individuals. According to Prais and Rosa (2017), word clouds are didactic and educational instruments that can be used in various areas, from school to business. The basic premise is to choose words and or terms related to a certain topic. The more people post the same word, the more it stands out. These clouds can make a teacher realize in advance what concepts their students carry about a given subject and from there, work out the strategies that will be used for a given purpose, which would lead them, consequently, to have a greater educational achievement.

For this reason, the use of this tool in the research could imply a greater understanding of concepts about childhood depression, which could corroborate the project’s actions and provide future actions.

For the development of the word cloud, we operate using the “Mentimeter” program, which is an online platform of Swedish origin for the creation and sharing of didactic and interactive slide presentations, enabling different professionals from different areas to create complex research and presentations, such as quizzes and word cloud, with real-time feedback. With that, through this word cloud, we present the guideline through the command phrase: “Write three words that represent, for you, childhood depression”, starting the collection on October 20, 2020, published through social media such as Facebook, WhatsApp and Instagram and ending it on November 2, 2020. It is noteworthy that the Free and Informed Consent Term—TCLE is not applied at this stage, as there is no identification of the participating subjects or the collection of their information. The word cloud was released by Facebook, Instagram and WhatsApp.

Information relating to the data obtained through the word cloud was collected by the “Mentimeter” program itself, which transfers the research data into Microsoft Excel spreadsheets. From this, it was possible, in our analysis and discussion of the data, to compare the terms that appeared more frequently with those that are presented in the scientific literature. After analyzing the concepts that most appeared in the cloud, totaling 8 highlighted terms, we discussed these in order to allow for reflection with what is grounded in the scientific literature, providing their corroboration or refutation.

Regarding quantitative analysis, we used the Instagram platform, as a scientific dissemination resource, in order to share relevant information on the subject, as well as to enable us to collect answers about the impact and scope of sharing this information regarding childhood depression.

Estanislau and Bressan (2014) demonstrated that, even in Brazil, an information campaign can change knowledge and attitudes towards mental health problems. In this way, we draw on Madeira and Gallucci (2009), who describe social media as online technologies and practices for the dissemination of content, which can encourage the exchange of opinions, information, ideas, experiences and perspectives, causing connection, interaction and social ties between groups.

Thus, Instagram is an online social network for sharing content through images and videos among its users, which comprises a vast field of varieties, from products to information. Therefore, using a professional page on Instagram, named @neuropsicopedagogia10, created on May 14, 2015 with the aim of sharing information focused on philosophy, psychology, neuroscience and education, we started to publish content focused on the theme of master, where we currently have approximately 7119 followers.

In view of this, as we have 95% of Brazilians in the total following the Instagram page, including teachers, legal guardians and others; we developed informative posts related to childhood depression, in order to disseminate information based on scientific literature and encourage awareness of these followers, thus encouraging them to disseminate this knowledge to other people, promoting the dissemination of posts so that they can reach a significant number of individuals.

For data collection, the Microsoft Excel program was used, with the publications of informative posts on Instagram, totaling 10 publications, a stage that lasted about six months, and in which we were able to collect relevant data that show the power of social media for the wide dissemination of information based on scientific literature. Taking these aspects into account, the data extracted from the platform itself were transferred in full to tables.

Thus, scientific dissemination posts about childhood depression were segmented into two stages, as illustrated in the flowchart of informative posts (**Figure 1**), with the first stage, which we called “Did you know?”, and which aims to bring reflections and information on various aspects of child mental health, specifically depression in children, corresponding to 8 publications.

The themes of this block, respectively, follow: 1) Did you know that the promotion of mental health in childhood can beneficially interfere in the educational context? 2) Did you know that children can suffer from depression? 3) Did you know that the role of the school goes beyond the educational context, as it is also capable of promoting mental health and helping to prevent mental disorders? 4) Did you know that the educator can influence both positively and negatively on the mental health of their students? 5) Did you know that the family plays an important role in children’s mental health? 6) Did you know that bullying, which is also called school harassment, is considered illegal for violating the principles of the Brazilian Constitution? 7) Did you know that socio-emotional learning in the school context can positively influence learners? 8) Did you know that there is a very relevant interface between neuroscience and education?

And finally, in the second stage we published two posts that were called “15 Fake News about Childhood Depression” about childhood depression, featuring fifteen false statements collected through social media. Here are, respectively, their themes: 1) Sadness in children is the same as in adults. 2) The so-called “good” legal guardians are always able to detect suggestive traits of depression in

the child. 3) Chronic sadness will go away on its own. 4) Talking about sadness with children can make the situation worse. 5) Children don't commit suicide. 6) There are no validated treatments to treat childhood depression. 7) Depressed children always lead normal lives. 8) Depression has no cure. 9) Being depressed and being sad are the same things. 10) Depressed child is an excuse not to say that he is lazy or weak. 11) Only female individuals can be affected by depression. 12) Only mental health professionals can detect suggestive features of depression in children. 13) Children with traits suggestive of depression are always quiet and isolated. 14) The family does not have the power to influence the treatment of depression in children (Figure 1).

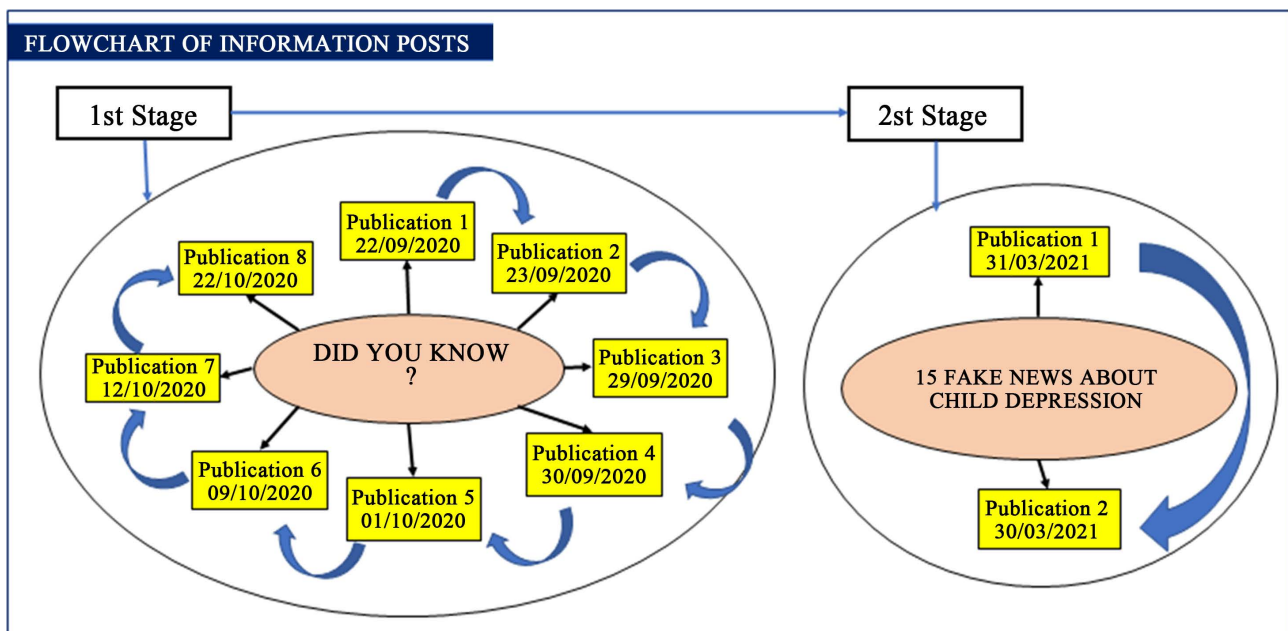
3. Results

3.1. Word Cloud

We had ninety-nine (99) responses obtained through the Mentimeter platform, aiming to answer the question created in the word cloud, "Write three words that represent, for you, childhood depression." By observing the responses obtained, we identified the words that most appear in the word cloud, that is, the larger the word presented in the cloud, the more time it will have been chosen by the participating subjects. Thus, we have counted eight (8) words that most appeared in the responses, namely: "Sadness", "Loneliness", "Isolation", "Silence", "Anxiety", "Fear", "Apathy" and "Abandonment."

3.2. Publication of Informative Posts

The analysis of the results obtained through the Instagram platform resulted in



Source: Elaborated by the author (2021).

Figure 1. Flowchart of informative posts.

two **Figure 2** and **Figure 3**, respectively. In **Figure 2**, shown below, through the perceptions of the results obtained by the publications, we can understand the cause-and-effect relationship within a given context. We have eight (8) publications totaling an average of one thousand and seventy (1070) accounts reached, between followers and non-followers. Regarding interactions with published content, we have an average of seventy interactions with the content, including likes, shares, saves and comments.

In **Figure 3**, shown below, through the (2) two publications referring to Fake News about childhood depression, there is an average reach of five hundred and forty (540) accounts reached, between followers and non-followers. With regard to interactions with these two publications, there is an average of thirty (30) interactions, including likes, shares, saves and comments.

4. Discussion

Prior to publishing informative posts based on scientific literature for the general population, through social media “Instagram” we applied a word cloud, in order to understand the previous concepts of different social groups that responded voluntarily, conceptualizing depression in order to compare these terms with what exists in the scientific literature. And, in fact, ideas expressed by the words that appear the most in the cloud point to the articulation with what the scientific literature presents nowadays. The eight registered concepts, “Sadness”, “Loneliness”, “Isolation”, “Silence”, “Anxiety”, “Fear”, “Apathy” and

Posts "Did you know?"	Scope (accounts)			Interactions with content				
	Full range	Followers	No followers	Likes	Shares	Saving	Comments	Total
1	1211	691	520	48	7	7	6	68
2	893	670	223	52	3	5	2	62
3	1095	582	513	46	4	9	0	59
4	931	582	349	40	4	7	0	51
5	834	459	375	41	3	6	6	56
6	988	688	300	42	0	3	0	45
7	1161	827	334	41	1	11	0	53
8	1432	923	509	80	10	26	5	121

Source: Elaborated by the author (2021).

Figure 2. Publications of posts “Did you know?” Part 1 of 2.

POSTS: 15 Fake news about childhood depression	Scope (accounts)			Interactions with content				
	Full range	Followers	No followers	Likes	Shares	Saving	Comments	Total
1	664	591	72	31	2	3	1	37
2	412	325	87	22	0	1	0	23

Source: Elaborated by the author (2021).

Figure 3. Publications of posts “15 Fake News about childhood depression.” Part 2 of 2.

“Abandonment”, were categorized as signs and symptoms, being present in the literature doctor.

Currently, it is noticed through the scientific literature, the increase in the number of cases of clinical diagnoses of children and adolescents with depression. In Brazil, according to Souza (2021), it is estimated that 0.4% to 3% of children and 3.3% to 12.4% of adolescents have depressive symptoms. According to DSM-5 (2014), the most common symptom of individuals who are affected by depression is sad mood and/or irritability.

However, it is necessary to understand that feelings of sadness and anger, due to stressful factors in life, are in many cases normal and transient, however it is necessary to be aware of the intensity, persistence and the combination of other symptoms and signs that the individual can present (Lee, Curatolo, & Friedrich, 2000).

There are symptomatic conditions that, although not present in the DSM-5 criteria, favor the development of depressive symptoms, for which it is necessary to be alert, according to Souza (2021), they are: hopelessness, social withdrawal, memory difficulties, low self-esteem, anxiety and others.

Loneliness can be considered as a cause and or an effect of depression. Social need, according to Barroso, Oliveira and Andrade (2019) is a considerable aspect influencing the development of depressive conditions. Likewise, this psychopathology can lead to feelings of loneliness, one of the most evident symptoms, making the individual feel excluded from society.

Isolation, as well as loneliness, can also be seen as a cause and/or effect for the depressive condition. Social isolation, as a consequence of the COVID-19 pandemic, can lead to the development of depression in different age groups. The vice versa also occurs, one of the main signs of the subject being affected by depression is his isolation, whether at the family, work and friend's level (Lima, 2020).

Silence, one of the terms that stood out in the word cloud, can be understood in different ways when it comes to depression. It can be considered a sign of apathy, indifference to life situations (Esteves & Galvan, 2006), as well as, in an interpretive way to this term, as the lack of debates, information about childhood depression (Calderaro & Carvalho, 2005).

Anxiety is a common human symptom. However, depression can have comorbidities, that is, when one illness accompanies another. Therefore, when the anxiety level is exacerbated, it can be considered a separation anxiety disorder, common among children (Silva, 2016).

Fear is considered one of the human characteristics for survival. However, when fear exceeds what can be said of normality, it can be indicative of a depressive condition, reverberating in different areas of existence. Physical and psychological abuse and mistreatment are causes that can compromise children's behavior, with fear as a sign (Rotta, Bridi Filho, & Bridi, 2018).

Apathy, as discussed here, is one of the signs related to depression, normally noticed by those closest to us. As described in the DSM-5 (2014: p. 155), it is the

“sharp decrease in interest and/or pleasure in all or almost all activities for most of the day, almost every day.”

Finally, abandonment can be understood specifically in relation to childhood depression, as a consequence of stressful factors, such as parental rejection and separation anxiety, substantially interfering with the child’s development (Yaegashi & Milani, 2011).

In view of this, we can observe the congruence of the general population’s understanding with what the scientific literature points to about depression in children. However, it is still necessary to disseminate pertinent information on the subject, as emphasized by several researchers.

In this sense, nowadays, in which our society is increasingly connected to social media, it is necessary to use them not only as communication tools, but also to spread knowledge in a faster, more adapted and inclusive way. Therefore, as we take advantage of social networks as a means of disseminating knowledge, information derived from scientific research, there is a reduction in the distance between clinical practice and research, resulting in greater access to information and dialogue with the science and other areas of knowledge to the general public (Navas, Berti, Trindade, & Lunardelo, 2020).

Conventionally, a journal is evaluated based on criteria that are based on citations in other journals and/or its own, measuring the impact factor (IF). In the last decade, the use of alternative metrics, called “altimetric” (Alternative Article-Level Metrics) has been highlighted, with the purpose of measuring the impact of these alternatives arising from some scientific product (Barros, 2015).

The repercussion of the effects of these alternative metrics allows investments of interests in an exponential way, resulting in a new type of internet-based metric, which has the potential to analyze in a more effective and detailed way and in a broader way, the scientific impact based on in practices through social media (Barros, 2015). Researchers are increasingly using these tools, aiming to analyze their impacts through data that are invisible in the conventional way, benefiting from existing platforms such as Facebook, Instagram, Twitter, blogs and others (Priem et al., 2012).

In this way, making these means evident, as stated by several researches, social media platforms are becoming the most relevant means for the activities of these researchers, in Brazil and abroad (Pessoni, 2012). The increasing use of the web and social media by researchers in order to share knowledge related to their research points to effective methodological content and credibility (Birkholz et al., 2012).

In this sense, social media enabled the ability to democratize technical-scientific knowledge, breaking down obstacles that held back access to information, thus providing faster information to our society (Warren et al., 2017).

Therefore, in agreement with what was evidenced about the significant impacts on knowledge sharing through social media, the publications developed in order to inform the general population about childhood depression, were successful in relation to their reach to people. As described in the methodology, we

divided the informative posts into two parts, the first part with eight posts about childhood depression and the second with two informative posts referring to the 15 fake News.

In the 1st post, we reflected on the promotion of mental health in childhood and its interference, in a positive way, in the educational context. In this context, child mental health can be understood as a complex and multidimensional phenomenon, containing emotional, behavioral, social issues, among others. These issues generate a skill set of skills to take the student, enabling him to live in society, relate and be able to recognize the frustrations of life (Cruvinel & Boruchovitch, 2003).

However, it is understood that the child who is in psychological distress, when through the behavior and the externalization of their emotions, can manifest difficulties in different areas, which in turn can end up acting negatively in the development of their relationships and in their process of learning (Carmo & Silva, 2009).

One of the factors that interfere with the quality of the learning process is the child's psychic health. There are several aspects to promote children's mental health, such as a harmonious environment, physical activities, healthy nutrition compatible with age, playful and socially interactive activities, contact with nature, socio-emotional projects for everyone, not only for the student, but also for teachers, psychotherapeutic listening, with professionals specializing in mental health and emotion recognition activities, among other things (Milani & Fernandes, 2009).

Therefore, corroborating the discussion of the questionnaire results, schools can provide these environments and promote activities within their pedagogical curriculum on mental health. It is extremely important to qualify educators in order to make these actions feasible in relation to child mental health (Couto, Duarte, & Delgado, 2008).

But after all, can children be affected by depression? This question refers to the 2nd post. According to Nakamura and Santos (2007), it is necessary to talk about childhood depression. Currently, according to mental health professionals, there is no doubt about the existence of depression in children, who can even be affected and present a picture of symptoms in preschool age.

However, as found in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5, 2014) and according to mental health professionals, the diagnosis of depression will hardly be made in children under the age of six years of development age.

Depression, therefore, is a highly prevalent mental illness. When the subject's mood becomes constantly negative, with significant damage in his life, he may be going through a depressive episode whose condition, if not treated, will continue to progress. Depression is a complex medical diagnosis, even when the patient is a child. However, this psychopathology exists in all age groups. Specifically in childhood, the manifestations of depression can be confused, mainly by

legal guardians and educators, such as tantrums, bad mood, bad manners, among others. However, in agreement with what was discussed in the word cloud, to differentiate depression from transient behavior, one must take into account intensity, persistence and sudden changes in behavior (Cruvinel & Boruchovitch, 2003).

Despite this, depression, in general, does not have a single cause, as causes such as genetic predisposition, brain biochemical dysregulation and stressful factors, categorically influencing the chances of developing depression (Curatolo & Brazil, 2005).

Therefore, returning to the question in question, yes, children can be affected by depression, showing behavioral and/or emotional changes, with intensity and persistence. It is essential to seek help from qualified professionals in the mental health field. Taking care of children's mental health is as important as taking care of their physical health, bearing in mind that one impacts the other.

Regarding the 3rd post, this shows that the role of the school goes beyond the educational context, as it is also capable of promoting mental health and helping to prevent illnesses. The definition of "Health Promotion" refers to a comprehensive concept of health and implies a model that involves the social causes of health, such as education, fundamental social services and the environment (WHO, 2001).

According to the World Health Organization—WHO, the "First International Conference on Health Promotion", in 1986, held in Ottawa, Canada, resulted in a letter, called "Ottawa Charter", whose conception of health promotion involves: 1) Holistic Model, that is, biopsychosocial, 2) Social Interaction, 3) Equity, 4) Empowerment, 5) Creation of sustainable environments, 6) Development of healthy public policies.

In accordance with the National Curriculum Parameters-PCNs (Brasil, 1996) "Health promotion occurs [...] through education, the adoption of healthy lifestyles, the development of individual skills and abilities, the production of a healthy environment, the effectiveness of society in ensuring the implementation of policies public services aimed at the quality of life and the health services provided." (Brasil, 1996: p. 13)

In view of this, the qualification of communities and people through information and the improvement of individual and social skills is one of the examples of health-promoting action, just as information is an instrument of prevention. In this sense, information and access to knowledge provide the community and the individual with autonomy through empowerment.

In this way, we know that schools cannot guarantee the mental health of all students. However, as we have already discussed in different areas of this research, the school can make an effort to have favorable environments, as well as invest in healthy relationships, including in its pedagogical curriculum activities aimed at recognizing emotions and anxieties, in addition to providing qualifications to its pedagogical body (Atkins, 2010).

In the 4th post, we reflected, both positively and negatively, on the teacher's influence on the mental health of their students. Educators have an intense and rewarding task to work on the development of their students, whether in the pedagogical or social spheres. However, we cannot forget that we are emotional beings and with that, the interaction of both, mental health can end up being influenced. The role of educators in basic education will have repercussions throughout society, as teachers effectively influence the formation of citizens and, in addition, play a key role in the propagation of scientific knowledge (Cid & Gasparini, 2016).

In this sense, educators who favor a healthy environment, a harmonious interaction with their students, encouraging the child to trust, critical and creative thinking, having an inclusive work, adapted, when necessary, will provide positive stimuli for the student. Otherwise, the teacher who does not give the child the freedom to express himself, reproaches him and uses pejorative nicknames, does not provide stimulating activities, moments of distraction, play, playful moments and practices segregation or allows his colleagues to practice it, will be negatively influencing the child's mental health (Garcia, 2016).

In the 5th post, we present the aspect of the family as having an important role in children's mental health. There are paths that have the potential to promote good mental health in children and one of these is the family. The family group, regardless of its composition, will represent a network of trust to those who belong to it. Faller and Acosta (2014: p. 76) understand the meaning of family as: "[...] the cell of the social organism that is the foundation of a society. "Locus nascendi" of personal stories, is the instance predominantly responsible for the survival of its components; place of belonging, of questioning; institution responsible for socialization, for the introjection of values and for the formation of identity, a private space that relates to the public space." (Faller & Acosta, 2014: p. 76)

In this way, the family is understood as forming emotional bonds, creating values that will contribute to the subject's relationships with other individuals in society. The affection manifested in gestures, caresses and attitudes is what is most significant, benefiting the child's mental health (Baptista, 1997). Family misunderstanding is one of the factors that delay psychological care and when there is no family support, the child, subject to stressful factors, will be more predisposed to develop possible emotional/psychiatric disorders (Baptista, Baptista, & Dias, 2001). However, the family understanding the child's situation, giving the necessary support, can provide the alleviation of the stressful effects of daily life, consequently reducing a possible onset of a psychiatric disorder. In short, it is worth noting that the quality of family support makes all the difference (Cruvinel & Boruchovitch, 2003).

In the 6th post, we included the context of bullying, where we presented it as being considered illegal for violating the principles of the Brazilian Constitution. Bullying is a form of systematic intimidation and we, as teachers, need to be

aware of this issue. This form of systematic intimidation applies to children and adolescents, as in relation to adulthood, it is called the crime of libel, libel, defamation and moral harassment (Santos, 2011).

The acts of bullying usually occur in the school environment and provide serious mental triggers for their victims. However, socialization is present throughout the environment, such as in condominiums, squares and even inside homes. In this way, the practiced acts of bullying have a sociological reason, to which the school environment, as well as others, is related. It is characteristic of human beings to form social organizations, which present situations of hierarchy based on intimidation, whether by physical or psychological force. With this, acceptance patterns are formed, that is, the dominant groups crystallize into a pattern and all those who do not fit, end up being victims of bullying (Silva, 2010).

Therefore, subjects considered cool, popular, intimidating, strong and smart, become a reference for such social behavior, and those who do not fit this model are discarded and considered “abnormal”. Thus, humiliating, prejudiced, racist and other behaviors arise. This act is condemned by the Civil Code, which establishes as unlawful any conscious act that causes harm to others (Borges, 2016).

In the 7th post, we dealt with “Socio-emotional Learning (ASE)” in the school context, which has positive consequences for children. The purpose of ASE is the acquisition and reinforcement of socio-emotional skills, in order to provide the individual with skills that help to perform tasks, solve issues and others.

Wang, Haertel and Walberg (1990), in a research that aimed to investigate the aspects that had the most influence on the learning process within the school environment, found 28 influencing categories, among them, 8 stood out for being strongly linked to social-emotional learning, such as described below: 1) Classroom administration; 2) Support from legal guardians in the learning process; 3) Connection between teacher and student; 4) Positive stimuli; 5) Motivation; 6) Friendship Circle; 7) School culture; 8) Climate of the school environment.

It is clear that socio-emotional learning can not only benefit the child, but also the teacher. In this sense, as discussed above, schools can become important centers for the dissemination of health, and for this purpose, the qualification of the school’s pedagogical body in the context of socio-emotional learning is essential (Motta & Romani, 2019).

In the 8th post, the last post of the first part, about the dissemination of information based on literature to the general population, we share the relevance of the interface between neurosciences and education.

Neurosciences correspond to a very significant area of study, which is constantly advancing, consisting of several sciences that seek to understand the nervous system (SN) at its different levels. I highlight three main areas for our discussion: neuroanatomy, neurobiology and neuroeducation (Souza et al., 2019).

Neuroanatomy, about a century ago, began to be developed in different contexts and by different scholars. Neurobiology, on the other hand, has several fo-

cuses of studies, but what we highlight here is learning, a study that considers emotions as one of the fundamental roles in the teaching-learning process, as they can use cognitive mechanisms such as anger, fear, anxiety and sadness, to hinder the learning process. From a neurobiological point of view, the main brain circuits and systems that are involved in the processing of emotions are: the amygdaloid body, limbic system, orbitofrontal area, hypothalamus, dopaminergic circuit, cerebral cortex and hippocampus. The knowledge of these circuits underlies, from a neurobiological point of view, the learning process, becoming an important ally of educators. As they understand these structures, they can influence new teaching methodologies as society progresses. (Santos & Cunha, 2014)

Neuroeducation is the interface of areas such as psychology, education and neurosciences. As Lisboa (2014) describes, neuroeducation aims to develop new teaching methodologies, based on the most complex organ of the human being, which is the brain.

Thus, as characterized by Souza et al. (2019: p. 32): Thus, since teaching methodologies influence the learning process and that this is provided from changes in the nervous system, Neuroeducation emphasizes the importance of considering the contributions of Neurosciences in the face of educational processes where one of these ways is, leading to consideration of the importance of knowledge of the Neurobiology of emotions (Souza et al., 2019: p. 32).

From this perspective, after sharing information on themes that are in common with the aspects that were developed in this research, we highlight that the last post, referring to the interface between neurosciences and education, was the one that had the most reach and the most interactions with the contents. Second, Carvalho (2010), a necessary articulation for educator training.

Therefore, we ended the disclosure of information pertaining to childhood depression with two posts referring to Fakes News involving the theme. In all, 15 Fake News were raised as shown in Table 1.

Finally, based on the 15 Fakes News about children's mental health, we list through the scientific literature some references that contradict these untruths, based on scientific evidence as shown in Table 2.

Final Considerations

Nowadays, it is impossible not to reflect on the various alternatives promoted by the internet, specifically in the interaction of people through social media. Just as this interaction gained space on the internet, scientific production and the dissemination of scientific information has also been gaining more and more space.

During the entire process of analysis and discussion of this research, we noticed that social media are strong disseminators of information, which transmit it quickly and practically to an expressive number of individuals. In this way, both for researchers and for professionals from different areas, social media are beginning to be a starting point for expanding scientific dissemination. The interaction promoted through shares, likes, comments and saving for reading later,

Table 1. Fakes News about child mental health.**FAKE NEWS INVOLVING CHILD MENTAL HEALTH**

1. "Sadness in children is the same as in adults."
2. "The so-called "good" legal guardians, they are always able to detect suggestive traits of depression in children."
3. "The chronic sadness will go away on its own."
4. "Talking about sadness with children can make the situation worse."
5. "Children do not commit suicide."
6. "There are no validated treatments to treat childhood depression."
7. "Depressed children always lead normal lives."
8. "Depression has no cure."
9. "Being depressed and being sad are the same things."
10. "A depressed child is an excuse not to say that he is lazy or weak."
11. "Only female individuals can be affected by depression."
12. "Only mental health professionals can detect suggestive traits of depression in children."
13. "Children with traits suggestive of depression are always quiet and isolated."
14. "The family does not have the power to influence the treatment of depression in children."
15. "The educators and the school are not important in helping to detect traits suggestive of depression in students; it is only the family that can identify."

Source: Elaborated by the author (2021).

Table 2. Examples of references that counterfactual fakes news, based on scientific evidence.

Miller, 2003; Cruvinel & Boruchovich, 2003, 2009, 2014; DSM-5, 2014; Baptista, Baptista, & Dias, 2001; Nakamura & Santos, 2007; Carmo & Silva, 2009; Calderaro & Carvalho, 2005; Borges, 2016; Silva, 2016

Source: Elaborated by the author (2021).

can provide the distribution of this scientific information, such as data, results, among others.

Regarding the results of the dissemination of information to the general population, we highlight an interesting point, where the concepts that most appeared in the word cloud be in agreement with those found in the scientific literature. It should be noted that even if we agree, it does not mean that the Brazilian population is aware of the symptoms and signs of depression in children.

In this sense, we need to assiduously continue to share more information, bring constructive debates to society, with the intention of demystifying the obscurantism that involves depression in children, using the space of social media as a pedagogical method that provides an expressive reach of people, quickly, as seen in the results.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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