


## WHEN THE PANDEMIC PASSES, BUT REMAINS: SUBJECTIVE REFLECTIONS FOR THE EMPOWERMENT OF LEARNING IN GRADUATE STUDIES

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### ABSTRACT

This research investigates the impacts of the Covid-19 pandemic on a Graduate Program at UFPA, bringing insights into the cognitive dynamics and the correlation of these factors with the academic performance of students and graduates of the Master's Degree. In addition, the construct sought to understand and analyze, movements and attitudes said to be resilient for the empowerment of subjectivities, which the participants did to keep their academic learning active, in the face of the scenario they were going through. In this sense, the data revealed that 93.9% of the participants showed that problems related to mental health intensified in the face of the health crisis, reverberating in academic performance. In order to achieve the results, in order to answer the research questions and the proposed objective, an electronic questionnaire via *Google Forms* was used to collect data from graduates (2019 to 2022) and students (2023 to 2024). In light of this, Content Analysis was adopted for the inferences of the open questions, while for the closed questions, a descriptive statistical was carried out to understand the panorama, in the indications of the qualitative research. In fact, the analysis revealed that family support (63.6%) was a strength to boost and subsidize the empowerment of subjectivities, as well as religious practices (51.5%) proved to provide resilience for not dropping out of the course, culminating in overcoming and strengthening in the face of obstacles. It should be noted that the choice of the two distinct groups in temporal contexts is justified in the comparative form and in the subjective perceptions in view of the impacts on the academic trajectory: the graduates represent those who experienced the master's degree in the pandemic, while the students entered the post-pandemic scenario. However, it is worth noting that although the groups were at different times, they presented similar entanglements.

**Keywords:** Post-pandemic. Empowerment. Mental health. Academic resilience. Cognitive dynamics.

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## 1 INTRODUCTION

The Covid-19 pandemic, as a global health crisis, brought with it the uncertainty of the unknown. Certainly, surprised by the severity and acceleration of the disease that was intensifying, society had to pause its routine and imprison itself within itself and its homes for periods that indeterminated its daily activities within what is considered common. Social isolation was crucial, in order to mitigate the non-spread of the virus, which had a high degree of transmissibility. In Brazil, the State of Amapá was the first to decree a *Lockdown*<sup>3</sup> and Amazonas the first to register a collapse in public health, according to data from the BdF<sup>4</sup> (2020), both belonging to the northern region of the country.

In fact, social isolation motivated by the severity of the pandemic carried with it evidence of problems related to mental health, worsening in pre-existing individuals and emerging in others with a predisposition. "Although necessary, prolonged social distancing caused physical, psychological, social, and economic problems in university [and graduate] students, which greatly impacted their quality of life" (Moura *et al.*, 2023, p. 01).

While the transition from regular face-to-face education to the emergency remote modality was being witnessed, stressors from the academic scenario added to the uncertainties of the pandemic scenario, reverberating in fear, concern, and negative affectivities. A survey carried out by the Forum of Pro-Rectors of Community and Student Affairs (FONAPRACE) carried out in 2010, pointed to psychic suffering with a percentage of 47.7% in students of Brazilian Federal Institutions. In the mapping carried out in 2020 (pandemic period), the report showed an increase rate of 83.5% with complaints of emotional difficulty (Lameu; Souza, 2024).

With regard to the breadth of the impact, it was not limited only to the individual sphere; but extended to the collective, evidenced in the continuous low academic performance, which consequently directly implied and harmed the study programs. This complex dynamic, interspersed between overcoming and persistent challenges, highlights the relevance of further investigation to understand the nuances of the lasting effects of the pandemic on learning and the resilient developments that graduate students (2023 and 2024) and graduates (2019, 2020, 2021, and 2022) have done to keep their academic productions active. Therefore, driven by the research questions that this construct sought to reach, we

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<sup>3</sup> An English term that, although it does not have a single translation, expresses "confinement".

<sup>4</sup> Brasil de Fato (BdF) is a news website and a radio agency. For more details, please visit: <https://www.brasildefato.com.br/2020/05/20/coronavirus>

investigated: did the participants already have cognitive difficulties before the pandemic? How did they subjectively empower themselves in the face of academic learning?

In view of the above, the initial concerns for this study emerged from the reports of students of a Graduate Program (PPG) of the Federal University of Pará (UFPA) who faced cognitive difficulties, resulting in challenges for concentration and academic production. The reality has generated a certain apathy towards studies due to the cognitive barriers that impact the ability to effectively engage in academic activities. The first hypothesis of this study demarcated the field as "cognitive inhibition", <sup>5</sup>seeking to understand how these difficulties influenced the students' experience. It should be noted that these complaints originated during the pandemic period and persisted in the post-pandemic scenario.

Therefore, the objective of this study is to reflect on the empowerment of learning by graduate students and graduates in the face of the impacts of the post-pandemic Covid-19, bringing *insights* into the cognitive dynamics and the correlation of these factors with academic performance. It is also noteworthy the protuberance of developing the research focuses on the scientific commitment that the work aims to present, given the extension that is intended to be achieved with the execution of this construct, a more scientific and sociocultural look, based on the testimonies about learning, its possible difficulties and strengths.

## **2 A PANORAMIC LOOK TO THINK ABOUT THE IMPACT OF THE COVID-19 PANDEMIC FROM THE PERSPECTIVE OF LEARNING**

The COVID-19 pandemic<sup>6</sup> has left a deep mark on education, with significant impacts on learning and teaching. The widespread closure of schools and universities resulted in the abrupt interruption of face-to-face teaching, leading to a rapid transition to remote teaching (Agnew *et al.*, 2019, *apud* Lameu; Souza, 2024) affecting more than 90% of the equivalent of 1.5 billion students in the world (UNESCO, 2020). This change, although necessary to ensure security, brought considerable challenges, including the intensification of the "[...] stressors commonly observed in academic life [...]" (Lameu; Souza, 2024, p. 215).

In light of this context, Emergency Remote Education (ERE) comprised "[...] activities mediated by asynchronous and synchronous digital platforms, with frequent meetings during

<sup>5</sup> This research is considering cognitive inhibition, the reduction of intrinsic aspects of cognition that, as a symptom, can be understood as a learning disability.

<sup>6</sup> Detailed research on Covid-19: <https://covid.saude.gov.br/>

the week [...] Alves (2020, p. 358). The adaptation process included in some cases the lack of structure, privacy, directly implying the concentration of the mind that, already fragile, was worried by uncertainty, for fear of contamination by the virus, accelerated concerns that corroborated favorable manifestations of anxiety, anxiety disorders, depression, cognitive inhibition, among other factors that reflected on mental health, consequently on academic production (Zhao; Du, 2020; Lee *et al.*, 2021, *apud* Lameu; Souza, 2024).

It is important to emphasize that the disease caused by the coronavirus was characterized in 03 (three) levels: mild, moderate and acute. According to Braga *et al.* (2023) a survey carried out by the Sarah Network of Rehabilitation Hospitals, in Brasília – DF, motivated by the numerous complaints of people who had been affected by COVID-19 in prolonged cases and/or in a watery situation, even after 01 (one) year of infection, reported what they consider to be Brain Fog: understood as the "blackout" that occurs in memory, associated with the constant forgetfulness of simple daily activities, among others.

Also from this perspective, the aforementioned research showed that "the most affected domains after one year were processing speed and long-term verbal and visuospatial memory, indicating that cognitive impairment still persisted after contracting the virus" (p. 518). In consonance, the results pointed out that **"COVID-19 was associated with an increased risk of longitudinal cognitive decline"** (Braga *et al.*, 2023, p. 518, emphasis added).

Although the study's notes have highlighted issues associated with mental health that are interconnected with the impacts caused by COVID-19, it is also worth emphasizing that the lack of electronic devices and the absence of internet connectivity pointed to disparities already present, elucidating the difficulties faced by students from vulnerable communities. According to research carried out by UNESCO and the World Bank (2020, p. 05) "social and digital differences put the most disadvantaged in a situation in which they are at risk of learning losses [...]. Lessons from the past – such as those from the Ebola crisis – have shown that health crises can leave many behind, [...]".

Faced with this scenario, teachers faced the need to adapt to new forms of teaching. The transition to the virtual environment brought technological and pedagogical challenges, requiring the rapid adoption of innovative strategies to maintain student engagement. "Immediately, teachers had to, in addition to mastering new teaching strategies and new technologies, also make use of a curriculum that was forged 'necessary' due to the pandemic context" (Dourado; Siqueira, 2020, p. 847).

However, adversity has also spurred innovation. The rapid adoption of digital technologies, while driven by necessity, could open doors to more flexible and personalized learning models in the future. In line with this reflection, Moran (2018, p. 53) informs that "The combination of active methodologies with mobile digital technologies is today strategic for pedagogical innovation". However, the resilience demonstrated by education systems suggests a remarkable capacity for adaptation, creating fertile ground for exploring new pedagogical approaches.

Finally, the legacy left by the pandemic in education will transcend the classroom, as well as serve as a catalyst for reflections on how the future of learning will be shaped, with the renewed emphasis on equity and innovation. The unexpected challenges faced allowed the resignification within the ecosystem of uncertainties. To remember the confrontations of that period is to perceive oneself not only as survivors, but also as resilient. From this perspective, Dias *et al.* (2022, p. 03) highlight that "resilience is considered a dynamic process that results in the process of positive adaptation in contexts of great adversity, in which the individual manages to remain healthy [...]". In light of this, it was considered appropriate to bring to this study a brief analogy regarding the developments on resilience and the way it culminates in some contexts.

## 2.1 RESILIENCE AND ITS CONSEQUENCES

Resilience is the science that studies people's persistence so that they can overcome adversity, conflicts, with greater balance, coming out of situations strengthened. "In 1807, the term resilience emerged, originating from the Latin *resilio* (re+salio), which means "to be elastic". This emergence in the modern scientific scenario composed the vocabulary of physics and engineering, [...]" (Timoshebo, 1983 *apud* Maia; Guimarães Neto, 2021, p. 148). According to Mendonça and Magalhães (2021), there are several studies that seek to define the word, but, even if there is no single definition accepted, the reflections lead to inclinations regarding the ability to resist in the face of what is posed as adverse.

According to Barbosa (2014), resilience was structured as a concept, from the scientific perspective of the mid-1950s and 1960s, seen as something hereditary. From 1975 onwards, internal and external factors were used to explain resilience. However, at the end of the 1980s it came to be understood as a personal belief – until the current conjuncture – it is the result of how people transform and organize their system. In Brazil, research on resilience began in 1996 with studies on children and adolescents exposed to situations of

psychological and social vulnerability; homeless people; low-income families; drug use and health (Souza; Cervený, 2006).

In the human areas, "the concept of resilience is closely related to the understanding of risks and protective factors, and can be transformed into the ability of human beings not to get sick, even when exposed to conditions that are harmful to health and development" (Maia; Guimarães Neto, 2021, p. 148). In this context, Sousa (2022) considers that the individual is not born resilient, he is polished, with the possibility of emerging in the face of traumatic events, uncertainties, pain, mourning, etc., as a response within the human interactive process and its environment, for example, the period of the Covid-19 pandemic "in which we faced so many changes and revisited the imminence of already existing problems, but enhanced by social distancing" (Sousa, 2022, p. 19). Corroborating this prism, Resilience "[...] it is the capacity or even a human ability to adapt to the circumstances of crisis in the psychological and biological spheres, improving intrapsychic abilities, linked to the affective and social environment and allowing a congruent psychic formulation to be associated with social insertion" (Laranjeira 2007 *apud* Melo *et al.*, 2020, p. 140).

From this perspective, the psychopedagogue Alicia Fernández (2001, p. 22) elucidates that resilience would be in the authorship of thought – where the subject is the autonomous protagonist of his story, says that it can be defined "as the process or act of production of meanings or feelings and recognition of oneself as the protagonist of this production". The author also highlights that providing authorship of thought as a structural enabler of resilient women has factors that "enhance the unique possibilities of each person, offering them spaces in which they can carry out experiences with teachers [and learners] that favor this process" (p. 22). Although Fernández's discussions do not directly present resilience, they are engendered in the past reinterpretations of learners – posed as the student – to be healthy in overcoming learning difficulties or even to design new movements, which implicitly refers to academic resilience.

Therefore, resilience in the academic context "[...] refers to the role of the school as a key institution, in which problem-solving skills are acquired through educational agents" (Garcia 2001 *apud* Melo *et al.*, 2020, p. 121). The authors also point out that it is "[...] It is fundamental to understand resilience as learning through informational appropriation in situations of uncertainty and conflict. [...] an essential academic agenda for the development of the subject in the educational sphere" (Melo *et al.*, 2020, p. 121). It can be said that in



education, being resilient is to resignify conceptions, paradigms, it is to see new possibilities, to think differently from a given situation, to give new meaning.

### 3 METHODOLOGY

The study was designed and systematized based on a qualitative scientific approach. According to González (2020), it allows the researcher to multiplicity in the forms of approach, referring to socio-educational studies. Without duality between what is investigated and what is investigated; an inseparable fine line. The researcher is seen in this type of research as knowledgeable and, with sensitivity in capturing what is implicit in the information, culminating in an autonomous, creative, subjective personal reflection, working with the universe of meanings, motives, aspirations, beliefs, values, etc.

Field Research was adopted, because "[...] tend to provide a type of intensive and constant contact between the researcher and the subjects included in the research. Social network services favor a profusion of synchronous and asynchronous interactions that strain the conventional notion of going to the field" (Padilha; Faccioli, 2022, p 115). It is the opportunity to deal directly with the researched object, in search of information and knowledge that is closely related to the concerns of the research, weaving evidence that can corroborate or refute hypotheses raised.

The participants of the research were students and graduates of the classes of 2019 to 2024 of the Graduate Program in Anthropic Studies in the Amazon (PPGEAA) of the Federal University of Pará (UFPA), in Castanhal – PA, seeking to understand the point of view of each one about the problem in question, which is cognitive difficulties during and after the pandemic and how they subjectively empowered themselves in the face of academic learning in the context. To quantify and identify the target audience, a mapping was first carried out on the official website of PPGEAA/PROPESP<sup>7</sup> within the years already mentioned and confirmed with the Program Secretariat the veracity of the information obtained, it was found: 113 students, 79 graduates and 34 students, as described in Chart 1:

**Chart 1** – Mapping of the target audience

| CLASS/YEAR | NUMBER OF STUDENTS | 79 |
|------------|--------------------|----|
| 2019       | 22                 |    |
| 2020       | 21                 |    |
| 2021       | 18                 |    |

<sup>7</sup> Access: <https://www.ppgeaa.propesp.ufpa.br/index.php/br/programa/discentes/mestrado>

|              |            |                                      |
|--------------|------------|--------------------------------------|
| 2022         | 18         | <b>GRADUATES<br/>34<br/>STUDENTS</b> |
| 2023         | 20         |                                      |
| 2024         | 14         |                                      |
| <b>TOTAL</b> | <b>113</b> |                                      |

**Source:** Prepared by the author

It should be noted that the PPGEAA (Figures 1 and 2) was approved in 2016, with its activities starting in 2017, integrating the Castanhal Campus of UFPA as the first interdisciplinary master's degree. The Program's area of concentration is Anthropic Studies and has 02 (two) Research Lines: line 1 (Environments, Health and cultural practices) and line 2 (Languages, Technologies and cultural knowledge). The staff currently has 18 professors, 12 of whom are permanent, 04 collaborators and 02 guests. 01 secretary and 01 scholarship holder on the support board, according to information contained in the Institution's official page<sup>8</sup>.

**Figures 1 and 2 – Graduate Program in Anthropic Studies in the Amazon (PPGEAA)**



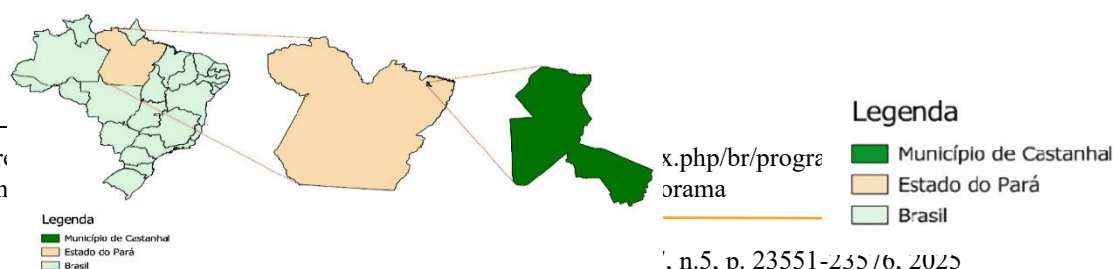
**Source:** PPGEAA



**Source:** PPGEAA

The PPGEAA is located in Castanhal (Figure 3), which in turn is a Brazilian municipality in the State of Pará, located in the micro-region belonging to the metropolitan region of Belém. It is located in the north of Brazil, 68 km from the state capital Belém and 2,078 km from the federal capital. According to data from the Brazilian Institute of Geography and Statistics (IBGE/2022),<sup>9</sup> the aforementioned city is one of the most developed populous municipalities (192,256 people) in the northeast of Pará and considered a model city in the state.

**Figure 3 – Cartographic Location**



<sup>8</sup> For more  
<sup>9</sup> Detail in





**Source:** IBGE

With the information, a social contact was made with the Institution to enter the *locus* of the investigation, made at the time, the request to send the document *online* through the official networks of the PPGEAA, as well as dissemination through a digital banner, inviting the target audience to participate in the construct. When contacted, they were informed of the Research, so that they could authorize the study, through the acceptance of the Informed Consent Form (ICF) assuring them of the confidentiality of the identity of the researched, the inclusion and exclusion criteria, risks and benefits. In addition, it should be noted that this study was approved by the Human Research Ethics Committee of the Tropical Medicine Center (NMT) of UFPA, with CAAE No. 86977025.9.0000.5172, in compliance with the established ethical guidelines.

As for the selection criteria for the study, they were: students of the Program and graduates from 2019 to 2024. Regarding the general categories, the following were used: 1) students who had learning difficulties during and after the pandemic and 2) students affected by COVID-19 who had cognitive difficulties. The choice of categories is justified by the degree of approximation with the Research. Regarding the choice of school years, they are intrinsically linked to the pandemic and post-pandemic period.

Regarding the results presented, in order to answer the problem and the objective that the research proposed, a questionnaire containing 23 questions was used, 08 open questions and 15 closed questions. To code and categorize the participants' answers in the open questions, thematic Content Analysis by frequency was used, while in relation to the closed questions, Descriptive Statistics was used. Content Analysis (CA) is a technique developed by the author Bardin (2016 *apud* Valle and Ferreira, 2024) and is one of the most used methodologies in the educational field. It provides the opportunity for multifaceted understanding within what is being investigated, in addition to instilling inductive and deductive approaches, which culminate in the categorization and codification of data in interpretative research. CA is hybrid, that is, neither fully qualitative nor quantitative, it mixes the two areas, in addition, it allows the researcher to draw perceptions on a fine line. The

option for this type of Analysis is based on mobility in providing the construction of knowledge through questioning in the various techniques applicable in sampling.

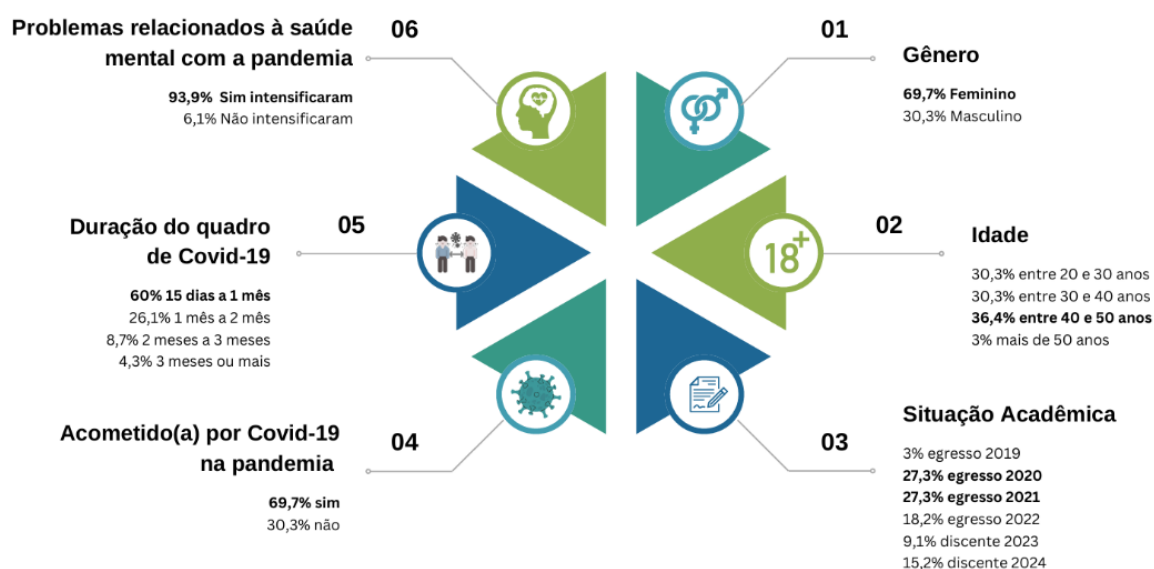
Regarding the instrument for data collection, the online questionnaire via *Google Forms* was used, configured and adapted following the recommendations of good practices of the General Data Protection Law (LGPD) under No. 13,709<sup>10</sup>, instituted on August 14, 2018, which by its name already has the meaning, as well as supports data considered sensitive. As for the choice of this type of instrument, which in addition to allowing the automation of data compilation, it is also justified in previous studies that point to returns in digital format as more effective, compared to the return made in printed form (Bastos *et al.*, 2023).

#### 4 RESULTS

Among the participants of the Survey, 69.7% were women and 30.3% were men, aged between: 20 and 30 years old (30.3%), 30 and 40 years old (30.3%), 40 and 50 years old (36.4%) and over 50 years old, represented by 3%. There was a predominance of graduates from the years 2020 and 2021 participating in this construct, with 27.3% in the same percentage for the years mentioned. This study also informs that 69.7% of the participants were affected by Covid-19, with 60.9% informing that the disease lasted from 15 (fifteen) days to 01 (one) month. 60.6% stated that before the Pandemic they did not show signs of depression and anxiety and 93.9% corroborate that problems related to mental health intensified in the pandemic period. Detailed information can be found in Diagram 1.

**Diagram 1** – Sociodemographic profile and tracking of the Covid-19 pandemic period

<sup>10</sup> The Law provides for the processing of personal data, including digital media. For more information, visit: [https://www.planalto.gov.br/ccivil\\_03/\\_ato2015-2018/2018/lei/113709.htm](https://www.planalto.gov.br/ccivil_03/_ato2015-2018/2018/lei/113709.htm)



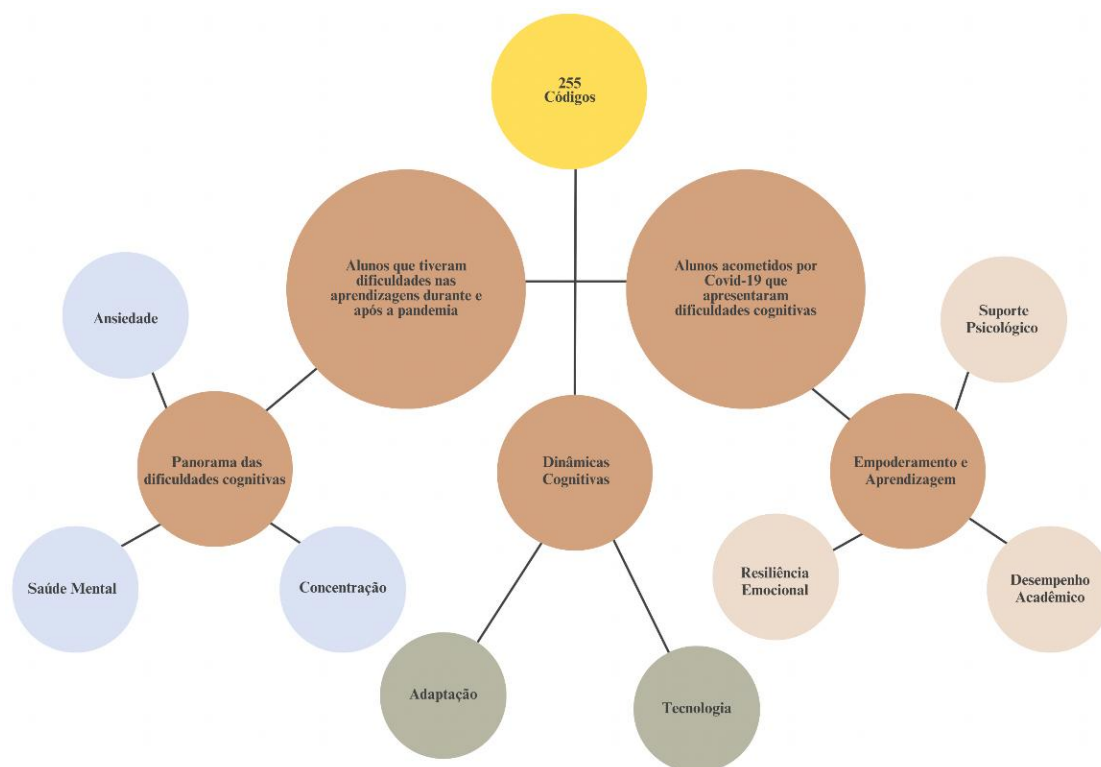
Source: Prepared by the author

Regarding the post-pandemic context, 60.6% started to have problems related to mental health. Predominantly, 93.9% considered themselves academically productive, but with the pandemic this scenario changed: 45.5% highlight that they have become less productive, while 36.4% say they remain with the same academic performance, however 18.2% oppose it by stating that they started to produce more after the pandemic scenario. As for Graduate Studies, 72.7% of the participants revealed that their trajectory was affected, with the following main challenges being highlighted as the following challenges: lack of concentration (65.6%), emotional and/or psychological difficulties (53.1%), personal or family illness (50%), memory blockage (40.6%) and financial problems (31.3%).

It is worth noting that the data collected went through 04 (four) stages that make up the thematic Content Analysis by frequency, which are: preparation, coding, categorization and analysis of the results. In view of this perspective, the data were organized in a document and, with the help of the *Atlas.ti tool*<sup>11</sup> (free version), 413 codes were identified. In the second moment, the coding went through a manual revisitation where the samples would be submitted to the research were chosen, reducing the mentioned value to approximately 61.7%, with the words remaining with the highest frequency per occurrence and that were aligned with the research question and the objective of the investigation of this study, totaling 255. In this way, it becomes possible to observe the course of the stages of the data generated, as illustrated in Diagram 2.

<sup>11</sup> Software that assists in the coding of qualitative research.

**Diagram 2 – Data analysis path**



**Source:** Prepared by the author

With the general categories listed, already read by the reader, the fragmentation of the subcategories was initiated through *Microsoft Excel*, where each code was grouped, seeking to identify patterns, continuing the organization of the emerging fields and, consequently, making the inference about the discussions of the results. Still from the perspective of the subcategories, the Research discussed in this successive order: Overview of Cognitive Difficulties; Cognitive Dynamics and Empowerment and Learning, with the respective groupings including the words that had frequency of occurrence, as shown in Table 1, the following stand out: Anxiety (58); Academic Performance (55); Mental Health (32); Emotional resilience (30); Academic Challenges (28); Adaptation (22); Technology (16) and Concentration (14).

**Table 1 – Frequency of Occurrence**

| Subcategories                      | Code          | N  | %      |
|------------------------------------|---------------|----|--------|
| Overview of cognitive difficulties | Anxiety       | 58 | 22,75% |
|                                    | Mental health | 32 | 12,55% |
|                                    | Concentration | 14 | 5,49%  |
| Cognitive dynamics                 | Adaptation    | 22 | 8,63%  |
|                                    | Technology    | 16 | 6,27%  |

|                          |                      |     |        |
|--------------------------|----------------------|-----|--------|
| Empowerment and learning | Academic Performance | 55  | 21,56% |
|                          | Emotional resilience | 30  | 11,77% |
|                          | Academic challenges  | 28  | 10,98% |
| <b>Total</b>             |                      | 255 | 100%   |

**Source:** Prepared by the author

## 5 DISCUSSION

The initial results showed the prevalent participation of females (69.7%) who point to complaints about the pandemic and post-pandemic period. According to Calais *et al.*, (2003 *apud* Lameu and Souza, p. 221, 2024) indicate that this difference would be "based on social demands in relation to women that add to professional and/or academic overloads, personal, biological, hormonal, sexual and social demands". In addition, it is possible to observe that the graduates of the years 2020 (27.3%) and 2021 (27.3%) – years of the high of the global health crisis experienced due to Covid-19 – prevailed. What can be measured in this comparison is that both classes experienced the period that occurred, along with the school year at the time. It should be noted that the class of 2020 was a pioneer in a new form of teaching that had to adapt due to the scenario in which it found itself, the Remote Emergency Education (ERE) – under MEC Ordinance No. 343 of March 17, 2020 <sup>12</sup> – extending to the class of graduates of 2021. Another piece of data that deserves attention is the 93.9% of the participating public that, at this juncture, inferred that problems related to mental health intensified in the pandemic.

In view of the above, it is informed that in this section, the following will be discussed: Overview of Cognitive Difficulties; Cognitive Dynamics and, Empowerment and Learning with the respective frequency words per occurrence, imbued in this construct. Also from this perspective, the notes, complaints, how the participants were subjectively, culturally and academically empowered in the face of the issues faced will be presented. To open the discussion, it is worth mentioning that this study will culminate in the confidentiality of the participants, in fact, they will be represented by the letter P referring to the word "participant" aligned with the corresponding number in the participation of data collection.

### 5.1 OVERVIEW OF COGNITIVE DIFFICULTIES

The subcategory entitled Overview of cognitive difficulties represents 40.79% of occurrences in the data generated in this study. She presents the complaints that are

<sup>12</sup> MEC Ordinance No. 343 of March 17, 2020, which provides for the replacement of face-to-face classes with classes in digital media for the duration of the pandemic situation of the New Coronavirus - COVID-19.

intrinsically linked and motivated to cognitive difficulties according to the participants. Among the weightings, Anxiety stands out, which is in evidence in this study 58 times (22.75%), followed by Mental Health (12.55%) and Concentration (5.49%). In some cases, the notes proved to be a traumatic reflex experienced during the pandemic period and extended later. However, it is worth mentioning that some students already carried Anxiety with them, as well as a notorious frequency of complaints related to mental health and lack of concentration, seen as a pre-existence enhancing during the Covid-19 pandemic, however, in other cases, these issues arose during the pandemic.

In light of this context, evidence indicates that fear and concern about the future were initial motivating stressors in the cases of those who had not yet triggered Anxiety, and they were also the interconnected stressors in the intensification of the already emerging cases. It is possible to observe in this panorama of narratives, where the participants illustrate the scenario they were going through. In the discussion (P3) he points out, "After I caught Covid, twice, I developed a higher frequency of anxiety crises. I was kind of forgetful, with difficulties to concentrate and this led me more easily to have more severe crises". (P4) corroborates, "I had the loss of two important people in the family, in addition to being affected twice, which caused anxiety and fear of losing more family members and leaving home". As for the fear of the unknown and future concerns, (P5) explains, "First came the discouragement, hopelessness and doubts about the future of the course because the academic calendar was interrupted in mid-March 2020 [...]". While (P7) stresses that "The pandemic impacted my mental health [...] which aggravated my anxiety in the face of uncertainty about my future."

It is worth remembering the fact that, on March 11, 2020, exactly 05 years ago, the WHO declared a World Pandemic by Covid-19. Although in China, in December 2019 (where the first cases were identified and there were already indications of the content of the disease) in the rest of the world, and only after the WHO was pressured by journalists who were looking for an answer to that scenario of the disease that had already killed an average of 4,300 people (according to official data), they met at the Organization's headquarters in Geneva, in Switzerland, and at 5 pm that day, the WHO described Covid-19 as a Pandemic – broadcasts of the meeting took place through digital platforms and television articles. Panorama, given the context of that time, hospitals were not yet overcrowded, social and global isolation had not yet begun, and no one was economically prepared for the unknown



catastrophe that was to come. 05 years and millions of lives lost worldwide to the spread and severity of the disease (O Globo, 2025).<sup>13</sup>

Through the aforementioned facts, it culminated in a new conjuncture called "Post-Covid Condition or Long Covid" according to the WHO (2025). The Organization, in recent studies, has been seeking to understand more properly and is developing clinical practice guidelines to manage this new Condition. However, it is already possible to have access to some data, such as: there are more than 200 different symptoms, among them fatigue, muscle and joint pain, feeling out of breath, headaches, difficulty thinking or concentrating, impaired sleep, depression and anxiety (WHO, 2025).<sup>14</sup> According to Hall *et al.* (2024, p. 1261) "[...] some evidence indicates that people with certain pre-existing disabilities (e.g., type 2 diabetes, [...]) may also be at increased risk of long COVID" and that the "[...] symptoms that continue or develop after a COVID-19 infection **last for months or years or are lifelong**" (Hall *et al.*, 2024, p. 1261, emphasis added).

It is inferred that in the face of the unknown, there was still no understanding, nor a dimension of what the trauma at the time, as well as what sequelae, could be linked to and what they would unleash; there was no initial protocol that could carry out follow-ups in the post-scenario (WHO, 2025). This is evidenced by recent studies by the Organization – released in February 2025 – which is still moving forward with the investigations, as mentioned earlier. These are needs that seem to be scrutinized, only from a significant number of the social body, when presenting similarities in terms of symptoms. This fact reveals a clear connection with the study published here in Brazil, in 2023 in the Sarah Network of Rehabilitation Hospitals, in Brasília – DF.

From this perspective, the national survey was motivated by the considerable number of patients who reported complaints related to mental health, called *Brain Fog* or Brain Fog which, according to Braga *et al.* (2023) can be characterized as a difficulty in planning daily life, concentration, attention, memory, and reasoning difficulties – elements that normally have repercussions on daily life. In the light of this context (P1) reports that "[...] after the beginning of the pandemic, social isolation linked to the news of illness and deaths of family members as a result of Covid-19, I developed depression and used antidepressants for 2 years, I stopped the course for 6 months and later I gave up for good". It is also urgent to

<sup>13</sup> For access to the full article: <https://oglobo.globo.com/google/amp/saude/noticia/2025/03/11/ha-exatos-5-anos-a-oms-descreveu-a-covid-19-como-uma-pandemia-pela-1a-vez.ghtml>

<sup>14</sup> Access the WHO: [https://www.who.int/news-room/fact-sheets/detail/post-covid-19-condition-\(long-covid\)](https://www.who.int/news-room/fact-sheets/detail/post-covid-19-condition-(long-covid))

emphasize that "I could not focus on my studies, my memory was terrible, [...]. The emotional ones were overcome after two long years of using antidepressants and psychological and psychiatric follow-up." Still from this point of view (P26) presents as a complaint the "[...] loss of self-affirmation in a lapse of infinite memory". Finally, also corroborating the symptoms of Fog within this Post-Covid Condition (P28) highlights the "Inattention and forgetfulness! Short memory affected".

According to Braga *et al.* (2023) the initial complaints of Brain Fog, reported by the patients, permeated between: forgetting words within a sentence, performing a routine task, not remembering the names of objects, forgetting appointments... and it is accentuated with the passage of time. It is worth mentioning that the public participating in the Sarah Network study were patients who had acute Covid situations, being hospitalized and not hospitalized, from different social levels. In fact, the Research identified "a slight improvement in neuropsychological symptoms 25 months after the acute stage of COVID-19; however, the performance was not within the normative parameters of standardized neuropsychological tests" (Braga *et al.*, 2023, p. 517) and concluded "the persistence of long-term cognitive and neuropsychiatric disorders in patients with prolonged COVID-19" (Braga *et al.*, 2023, p. 517).

## 5.2 COGNITIVE DYNAMICS

The Cognitive Dynamics in this research manifest themselves with a percentage of 14.9%, under frequency bias by occurrence, highlighting: adaptation (8.63%) and technology (6.27%). Adaptability during the Covid-19 pandemic and after, was a process that had to be forged and molded to the period that was experienced. Although adapted to a lifestyle where imprisonment of oneself and others was not imposed, it was necessary to go through the process within social distancing, in which there was no predetermined time for the end. "[...] And this has [had] consequences... with the potential for major damage. And that they would not be so serious, if it were not for such an unfair and excluding system" (Ramos, 2020, p. 03).

By way of illustration, it is inferred the collective disparity in the academic context, with regard to the adaptation to Emergency Remote Teaching (ERE) that "Unlike the modalities already known in the educational field, the ERE was a measure created as a response to the social distancing imposed on the world due to the health crisis" (Bandeira; Post; Ferreira, 2024, p. 03). The teaching model was made possible through technological resources, which generated in some cases, complexity due to the lack of access to those who lived in places

far from the cities, due to the low or absence of signal frequency, whether by data or *wi-fi*, satellite or radio connections. (P11) recalls the period of transition from regular to remote teaching and highlights that "It was a necessary adaptation at that time, but I do not wish to repeat it". Adversities that culminated in the fact that there was no delivery in its entirety with regard to the full content of the classes, sometimes due to the lack of privacy, devices that did not support transmissions through digital platforms that lasted an average time of 4 hours/day, sometimes due to connectivity, among others. The content did not seem to arrive on the other side of the screens with the same similarity to the students, given the points mentioned.

As previously discussed, (P13) points out that "Adapting to the teaching mode was a great challenge, especially for students in rural areas, where radio internet is unstable and it was enough for it to rain for the signal to be interfered with to the point of losing part of the content of the classes". Although both optical and radio connections may present instabilities, it should be noted that radio frequency diffusion in data transmission uses waves, being more susceptible to falls and oscillations due to weather issues, such as: rain, strong winds or obstacles that interfere between the transmitting tower and the receiving antenna (Unifique, 2024). In this regard, the north of Brazil, specifically the State of Pará, which makes up the Amazon region, is moved by large volumes of rain annually, due to the equatorial climate: hot and humid. It is considered the region that rains the most in the national territory (Guitarra, 2025). For example, one can mention the capital of Pará, Belém, which is "characterized by having high rainfall due to its proximity to the equator" (Moraes; Filho, 2018, p. 18). The authors also emphasize that almost every day, in the afternoon, it rains in the city.

Therefore, it is inferred that this movement motivated by the pandemic generated the development of new competencies and skills about technologies, which are placed in this study as positive. The greater use of technological resources mediated the advances and in the practicality of access, even with the eventualities regarding connectivity and devices, already mentioned above, it was possible to notice, expressively, in the participants' path, as shown (P25) in which he puts the "Actions such as online tutoring and better access to technological resources, helped". Adding to this narrative, (P27) confirms that he had "[...] better management with technological supports to maintain the flow of communication at a distance" while the "[...] skills with the use of technologies were essential for me to continue and conclude" (P29). Although provoked by the use of new tools intrinsic to the digital environment for (P32) it became "[...] more persevering and striving in her studies despite the

challenge of *online* classes". In the meantime, "[...] I learned how to use artificial intelligence tools" (P33). As already implicit in this panorama of discourses, it is assumed that these movements were potentiated by the period, even though these resources were already present in the access vehicles, it was unlikely to be explored by a portion of the social body that, at the time and at first, resulted in the complexity of handling. However, unmistakably, technology was necessary.

### 5.3 EMPOWERMENT AND LEARNING

The last subcategory entitled Empowerment and Learning, represents 44.31% of the data generated, being the most evident among the 03 (three) discussions listed. In it, participants describe the so-called resilient experiences and developments they made to keep their learning active during and after the pandemic. They also point out factors that conditioned them to subjectively empower themselves about academic and emotional challenges, while they express suggestions regarding the support of the Program for the strengthening of learning, with the aim of mitigating dropouts.

At the opening of the discussion, it should be noted that academic performance, in this subcategory, emerges with 21.56% of frequency per occurrence, in fact, the students considered that 42.4% had a low performance compared to the period before the pandemic. As for Emotional Resilience, it appears with a frequency of 11.77%, paired with Academic Challenges, which is shown in this Research with 10.98%. Among the strategies and/or resources listed most effectively, which contributed to maintaining motivation, they are, in descending order: family support (63.6%), religious/spiritual practices (51.5%), support from classmates (48.5%), planning and organization of studies (45.5%), support from teachers (42.4%), use of new technologies and methodologies (42.4%), and therapy and emotional support (24.2%).

The Research reveals to us nodal points such as the family and the manifestation of faith, emerging for overcoming and strengthening in the crossings in which the participants found themselves. Even going through challenging and emotional academic situations, these were not situations that in some made them think about giving up the Master's Degree – although there was a desire – this in turn was not consolidated, however, it did not prevent the subjective issues (mentioned above) from emerging in others: panic, anxiety, anguish, low self-esteem, intellectual incongruities, etc. In view of this scenario, it is possible to observe a similarity between the narratives, as expressed (P33) that took "[...] twice as long

to complete the master's degree, which makes me very frustrated and sad about the situation, which contributed to failures in disciplines and the desire to give up the course". Still in the same vein (P12) he argues that "With the lack of concentration and drop in performance, my academic life was delayed". Consequently, (P20) ratifies the high demand due to meeting the curricular demands "I had to fight with greater commitment, [...] to progress and not give up". In fact, (P22) corroborates "During the course there is the fear of having a bad performance and being disconnected from the program. I was even removed from work for 3 months (with a psychiatric report) and I was unable to advance in my master's research during this period [...]".

Each individual carries with him an organism that differs in the way of decorating and dealing with adverse situations, even if the conjuncture was perpetuated in line with the withdrawal, there was no renunciation; some are finishing their studies, while others have reached the conclusion of the Master's Degree. In light of this context, it is urgent to emphasize that the Research is considering these developments intrinsic to resilience in the academic context. In this sense, it would be directly linked to the desire to remain in the course, listening to speeches and reflections for education that made them continue – even if they wanted to or not – in the midst of the circumstances. From this perspective, resilience is seen as the ability of people not only to resist adversity, but to use it in their processes of personal development and social growth, "[...] as a quick return to the original state after suffering a great disturbance, enduring greater tensions and being less disturbed by a certain amount of stress" (Mendonça; Magalhães, 2021, p. 04).

Regarding Faith in this discussion, it emerges as a source, fortress, provider of resilient developments to remain active in personal and academic life. In previous studies, it has been shown that religious and spiritual manifestations can enhance resilience in individuals (Margaça; Rodrigues, 2019, *apud* Nunes *et al.*, 2023) as highlighted (P15) "The fact that I don't usually give up and I stuck to it was fundamental. I strengthened myself by exercising faith in God." Still from this perspective (P26) expresses that "Faith, resilience in seeing everything fall apart and believing that if I escaped alive, it was because something good was coming". Again, the manifestations emerge as emergent, emphasizes (P19) "I sought in God support, consolation and discernment to understand the process", as well as (P33) "My faith and the desire to complete the master's degree. Therefore, I tried to be firm even with the losses of close people and the fear of my family being affected". It should be noted that for Hott (2020, p. 01 *apud* Nunes *et al.*, 2023, p. 433) "it is a consensus that spirituality provides

introspection and strengthens the individual with the ability to observe himself, promoting the growth of stoic attitudes in the face of adverse crisis and difficult scenarios [...].

Remembering the Covid-19 pandemic, makes one realize that although the obstacles, whether in personal or academic life, kept them strengthened until the conclusion of the Master's Degree. Others, although not yet enrolled in the Program and/or did not go through the pandemic in Graduate Studies, received reflections of pedagogical practices from that period used in the current scenario. A valid piece of data to be mentioned, although timid, refers to the participants who attributed their active learning to their participation in the Research groups, as highlighted (P24) "Many questions in terms of learning were only met due to my participation in the research group, which did not end its activity at any time". Despite the interrupted calendars in that period, the groups did not stop producing scientifically through virtual meetings. These findings, in this study, in addition to providing knowledge, emerge as salutary practices and postures that mitigated the eventualities that were going through in that context, in fact, (P30) shows that "Participation in the research group [...] was fundamental in this overcoming, because the support, encouragement and demands of our coordinators always kept us focused on activities and guaranteed new learning and projects [...]".

It is worth noting that the conjuncture that made up the investigation of the Research, set a precedent for suggestion, for the purpose of improvement and academic support of the Program, proposed by the participants. See:

- (P1) Implementation of academic tutoring programs to assist students with difficulties;
- (P7) Creation of psychopedagogical and psychological support services, with listening channels and support groups. [...] expand the offer of scholarships and establish partnerships with institutions focused on the mental health of students and employees;
- (P11) Group meetings would be interesting, it will create coexistence and exchange of experiences;
- (P13) Promote debates and meetings with themes related to mental health. Through partnerships, promoting psychosocial care for master's students;
- (P15) Multidisciplinary team;
- (P20) Projects aimed at the mental health of students and graduates. Yes, graduates, although no longer active in the Program, need this support, either to continue their Doctorate or for the job market;
- (P21) Psychological Support and Wellness: Offering psychological support services and wellness programs to help students cope with the emotional impacts of the pandemic. This can include counseling sessions, support groups, and mental health workshops; [...] establish partnerships with institutions and companies to facilitate internships and job opportunities for graduates, in addition to promoting networking events and lectures with professionals in the area;
- (P23) Observe performance and mental health indicators in students and then offer options within the scope of coordination (extension of deadlines, second call exam, etc.) to help the student and relieve the psychological burden;



(P25) Offer periodic discussions in relation to actions/projects carried out by students and graduates, exchanges of achievements of successful projects;  
(P30) Psychosocial support program and production laboratory for academics.

For the sake of knowledge, this interlude of suggestions does not interrupt the inferences of the discussion, which now returns to reflect the chaotic scenario that society faced. In this context, the family proved to be necessary for the strengthening of loved ones who were going through the pain caused by the health crisis, with concerns about academia, although "[...] the debates in this field are still in the initial phase of investigation, but they have contributed to reversing the "negative" panorama, in which the family world has maladjustments and conflicts as its main figure" (Maia and Guimaraes Neto, 2021, p. 148). Faith, in turn, was a source of strength so that the supports could strengthen themselves and replicate this strength to others. "The COVID-19 pandemic brought many challenges, as well as an increase in the individual's state of anxiety, but also an opportunity to deepen religious faith or a personal relationship with God" (Koenig, 2020, p. 776 *apud* Nunes *et al.*, 2023, p. 433).

In addition, the support of classmates, although they were experiencing the frustration of the unknown at the same time, also served as support in the *online* meetings of classes or study groups, as well as the teachers, who remained active and encouraged, to encourage the other, in view of the developments they had to make to meet the opinion of the CNE/CP No. 5/2020 (BRASIL, 2020, p. 03) that provoked them "[...] consider proposals that do not increase inequality while using the opportunity brought by new digital information and communication technologies to create ways to reduce learning inequalities". As for academic demands, new methodologies and the use of technological resources, it emerges in this study as necessary to maintain discipline during the scenario, as well as to enter and monitor progress and post-pandemic methodological innovations. Therefore, it is inferred that the effects of the pandemic still permeate or will continue to permeate, as a trauma, in the midst of the social body, either by remembrance or the provocation of the fear still rooted in that period regarding the loss of loved ones, aggravation and acceleration of the disease, by isolation, in short, or by what was new in the post-pandemic scenario and generated strangeness. Thinking about the possibility of psychological and therapeutic follow-up can be a path that will contribute to reconnecting and/or reinventing yourself. A practice that in contemporary times could be normalized, breaking paradigms of perceptions that still

associate the search for a mental health professional, only under the gaze of disease. Today's people are inclined to take care of themselves!

## 6 CONCLUSION

This research brought experiences lived during and after the pandemic in the academic context, through the narratives of students and graduates of the UFPA Graduate course, in the understanding of resilient movements and attitudes, for the empowerment of subjectivities and the developments they made to keep their learning active, in the face of the challenges faced or still engendered by the Covid-19 pandemic. It was possible to observe with notorious frequency that the participants reported having their mental health affected by the period. Some already showed signs intensifying during the pandemic moment, while others were triggered by the health crisis due to coronavirus. With social isolation and changes in routine changes, previously considered normal, it reflected in the adaptability of those investigated in the training process in academia.

In light of this context, this study also pointed out that the family was a strength to boost and subsidize the empowerment of subjectivities, as well as religious manifestations as a provider of resilience for not dropping out of the course. It was also noted that the participants bring with them two major blocks: one of desire and the other, the unsatisfactory weight of not being able to grasp the necessary skills regarding learning within the context of the pandemic, reflected in academic performance.

As for the purpose of this Research, we inform that it was achieved and emphasize that the objective of this construct was to reflect on the empowerment of the learning of graduate students and graduates in the face of the impacts in the post-pandemic by Covid-19, bringing *insights* into the cognitive dynamics and the correlation of these factors with academic performance. However, it may present a weakness in the data due to the lack of use of neurological and psychological screening software, which would accurately point out the levels of stressors, as well as identify the symptoms/complaints listed – although this study is of a subjective nature based on the entanglement of the participants' experiences.

However, and in view of the findings, this research is suggesting a psychoeducational project with the possibility of hybrid meetings (face-to-face and *online*) in group or individual, which will culminate in mental health in the Post-Covid-19 scenario. Hold periodic meetings with the academic community, which in addition to strengthening bonds, will provide insights to the Program. Create a panel of successful publications in order to foster new

investigations, as well as the dissemination of these studies in official channels of the Institution. Finally, the creation of space for Co-supervision in order to mitigate the overload of teachers.

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