

“Early Treatment”, Anti-Vaccination, and Denialism: who are the Doctors for Life in the COVID-19 pandemic context in Brazil?

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Abstract *The article aims to identify who the “Doctors for Life” are, their academic and professional information, which assumptions have been mobilized for the defense of “early treatment” and the denial of vaccines for COVID-19, and the representativeness of their discourses in the medical practice context in Brazil. The analysis is based on a list of 276 doctors’ names, cataloged from their website, and on academic and professional information obtained through research on the Federal Medical Council website and the Scientific and Technological Development Nacional Council platform. The content analysis points to the centrality of the medical specialties of homeopathy and acupuncture in the population of Doctors for Life when compared to the set of specialist doctors in Brazil. The significant accession of homeopaths and acupuncturists to the Doctors for Life movement can clarify the understanding of specific medical rationalities, allowing us to distinguish which categories and ideas about the health-disease process are in dispute. It is concluded that, more than describing the problem, it is needed to establish its correlations with a group of events, practices, political decisions, economic linkages, shared beliefs, and a chain of processes that configure its undeniably social characteristics.*

Key words COVID-19, Treatment, Anti vaccination movement

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Introduction

Social crisis contexts, such as the public health crisis caused by the new coronavirus pandemic (SARS-CoV-2), are characterized by risks and uncertainties. At the same time, these moments challenge our perspectives and allow us to observe previously clouded or scattered social phenomena, forcing us to “sweep under the rug” old unresolved or naturalized problems. During the pandemic, the Brazilian society was impacted by the heated debate around the disputes over the “regimes of truth”¹ that deal with the ways of facing infection and disease, especially regarding vaccination and the so-called “early treatment”. This term was used during the pandemic in Brazil to refer to the use of the popularly called “covid kit” (comprising a broad list of drugs including vitamin C and D, zinc, ivermectin, nitazoxanide, azithromycin, prednisone, corticosteroids, among others) in patients diagnosed with Covid-19. Debates involving the scientific community, civil society, social institutions, and political agents were intense, and such themes seem to have marked a central point of articulation. In this scenario, health professionals, especially doctors, have played a decisive role in driving the actions to be taken through public policies. In this context, we discuss the organization called “Doctors for Life” (MPV) (<https://medicospelavidacovid19.com.br/>), comprised of medical professionals from Brazil who manifest and advocate for early treatment for COVID-19, for the non-mandatory requirement of vaccination – under various allegations – and for the valuing of the Hippocratic “heritage” in medicine (<https://medicospelavidacovid19.com.br/abaixo-assinado/?Signature=2>).

However, controversies, disputes, and dissent within medical practice, such as those observed in the MPV case, are not new. The vaccination, a much-mobilized theme in the debate, is an emblematic example. The history of important events in medical practice under a perspective of uninterrupted progress is a rather misplaced exercise in reconstruction². From the social science perspective, it is possible to state that this reality of disputes and controversies is more complex and shifting. Therefore, it requires a closer and more thorough examination². Moreover, the justifications subsidizing the so-called early treatment and vaccine hesitation are not trivial. Their analysis needs to be historically dimensioned as the only way to interpret the phenomenon beyond the conjunctural idiosyncrasies that political denialism presents³.

This study aims to identify and analyze who the MPVs are, their academic and professional background, the premises on which they base their advocacy of early treatment and denial of COVID-19 vaccines, and how representative their discourses are in the Brazilian medical practice context. We hope to understand and interpret this group of professionals’ diversity, regularity, and tendencies when faced with the declared pandemic situation. It offers us a unique opportunity to glimpse important colorings of phenomena such as the relationship between different medical rationalities and manifestations of vaccine hesitancy and scientific denialism, which plagued the pandemic context in Brazil.

Medical profession and the MPVs

Historically, the medical profession enjoys immense prestige. Medicine is an example of a profession that, following the Industrial Revolution and the intense division of social labor⁴, presented substantive cognitive bases, requiring for itself the mastery and monopoly of knowledge and its applications through specialized services⁵. The doctor had the role of defining realities, of saying what sanity or insanity is, and the “prerogative to elaborate and execute health and disease criteria, which have become medical-social paradigms”⁵. Their opinion is often imperative, and the strength of this authority is based on a high degree of legitimacy:

*The logic of trust, of ethical-professional credibility, assumes remarkable and definitive characteristics in the doctor-patient relationship. Even more important is that the doctor not only has professional authority over the patients but mainly exercises a real and strong power of action over them, making them passive consumers, uncomfortable with deciding on conduct regardless of their doctor’s opinion*⁵(p.22).

Although the undeniable social validation of the medical profession and its services have, during the COVID-19 pandemic, reinforced their character as social goods, some interactions in the domain of medical knowledge and practices have found themselves, to say the least, in disarray. Recently, repeated journalistic reports⁶⁻⁹, institutional statements, and the media in the general point out that the “medical class has also split” (<https://www.plural.jor.br/noticias/vizinhanca/a-classe-medica-tambem-se-dividiu-com-as-vacinas/>), following the discursive trend of some groups hesitant toward vaccination, against certain preventive measures (such as

wearing masks), and in favor of early treatment.

Thus, under widespread skepticism and disbelief in various institutions, denialist positions have surfaced³ with the emergence of organized movements that bear witness to this fragmentation, such as that of the MPVs. Much of their manifestations contradict the main institutional and expert guidelines issued by important organizations in the scientific, academic, and political arena, such as the World Health Organization (WHO) at a global level and the Fundação Oswaldo Cruz (Fiocruz) in Brazil. The group called Doctors for Life compiles on a website and a profile on Instagram (<https://www.instagram.com/medicospelavidacovid19/>) information, pronouncements, manifestos, and petitions under the common agreement of a substantial group of professionals. Even though the list of registered doctors includes 276 professionals, the first petition released by the organization in April 2021 has, up to the date of this consultation, 31,858 doctors who can sign the document, regardless of whether they are registered on the website or not. (Updated information available at: <https://medicospelavidacovid19.com.br/abaixo-assinado/?abaixoAssinado=1>).

The first petition, which contains the largest number of signatures, is a letter, dated April 2021, addressed to the Brazilian President, Jair Messias Bolsonaro. Some of the main themes developed in the text include early treatment (clarification, information, and advocacy), vaccines (implications and legal aspects), and the politicization/judicialization of the COVID-19 pandemic debate. The statements given by the MPV organization vehemently attack an “ideologization of the pandemic”, whose main characteristics would be the prevalence of the highly controversial media narrative and the adoption of misguided measures and false solutions. These include the massive use of masks, indirect mandatory vaccination, and *lockdowns*, which “are destroying society and sacrificing human lives, much more than COVID-19”¹⁰.

Overall, we can observe that the discourse is supported by a scientific syntax, which includes expressions, specific terms, and constant reference to “facts” that would prove their allegations (although these are not cited). However, it is a structure used in a superficial and fragile way, serving only as a support to carry the defended beliefs, criticisms, and political projects, making them palatable to the general public or political authorities. Thus, they advocate for themselves the character of scientific objectivity and “true

science” in their statements. The quote below illustrates components of the position on the two main topics, namely vaccination and early treatment:

*The big media news agencies have directed their editorial lines to advertise experimental vaccines, with unconventional technologies, without proven efficacy, and above all, the lack of safety. They urged the government to pressure the National Health Surveillance Agency (ANVISA) to simplify the technical criteria for the approval of immunizers, boycotting and demonizing the immediate treatment recommended by doctors all over the country, whose medical autonomy is guaranteed by the Federal Council of Medicine (CFM)*¹⁰.

Furthermore, in the demands presented at the end of the document, the petitioners request immediate action, including in “determining the immediate application of Law No. 12,965, of April 23, 2014, (Marco Civil da Internet - Internet Bill of Rights) on YouTube, Instagram, Facebook, and Twitter platforms by deletion and removal of posts favorable to COVID-19’s immediate treatment”. In other words, they request that information favorable to early treatment be freely available since most platforms have removed posts advocating ineffective treatments against COVID-19 or spreading false information about vaccination and other related issues. According to research conducted by *Agência Pública*¹¹ between January 2019 and December 2020, the Ministry of Health has invested more than R\$ 10 million in influencer marketing. Words like “care” and “early treatment” got mixed up in the posts. Faced with the scale of the spread of false information on the pandemic, several social media platforms, including Facebook, Instagram, TikTok, Twitch, Twitter, and YouTube, hosted the *#EuMeCuido* campaign on May 19, 2021. There have also been episodes where the information available on social media was deleted. However, in September 2021, the current president signed a provisional measure that changed the Internet Bill of Rights, ruling that the aforementioned social media platforms must follow certain protocols before removing accounts, profiles, and content available on their platforms.

A second document, dated July 20, 2021, directed to members of the Brazilian Judiciary and the Public Prosecutor’s Office, addresses even more illustrative questions regarding the organization’s position. The text, called the “Hippocratic Manifesto”, presents arguments over nine posed “dilemmas”, which address criticism to-

wards COVID-19 vaccines, the vaccination processes adopted by the country, and advocacy of drug treatments with “repositioned (*Off-Label*) drugs”. The nine dilemmas named by the doctors who signed the manifesto point to many risks involved in the discovery, testing, manufacture, and application of vaccines and even allege conflicts of interest among professionals who “dictate medical guidelines”. When considering the COVID-19 vaccination in Brazil and facing a series of accusations, they conclude that “we may be facing a new, unprecedented crime against humanity”. Even in April 2021, a Parliamentary Commission of Inquiry (CPI) was set up to investigate omissions and irregularities in handling the pandemic on national territory. In its final report, the Pandemic CPI recommended the indictment of 66 individuals and two legal entities according to practices of denialism regarding the virus and vaccines, the occurrence of corruption in the negotiations for the purchase of vaccines, and the deaths caused by the early treatment.

On the organization’s *website*, we can still “find doctors” who provide early treatment in each Brazilian state. The “Find a Doctor” tab provides access to data on registered physicians, which includes (1) name, (2) city and state, (3) CRM (Regional Council of Medicine) registration number, and (4) phone and cell phone numbers (WhatsApp). This information makes up the data collected and analyzed in this study, which seeks to characterize, in the first moment, the academic and professional information common to the doctors who make up the MPV.

Methods

The analysis of the scientific trajectory and professional specialization of MPVs is based on the 276 medical professionals listed on the Doctors for Life website (whose data are listed in Table 1) and their academic and professional information. This information was later collected on the websites of the Federal Council of Medicine and the Lattes Platform of the National Council for Scientific and Technological Development (CNPq). The collection took place between September 23 and November 22, 2021. It sought to investigate aspects related to professional specialization, the presence of a Lattes curriculum, post-graduate studies, academic production, participation in scientific events, and the character of the higher education institution (public or private). First, all the personal data provided by the MPV web-

site was collected manually. These included: (1) Name of the doctor; (2) CRM registration number; (3) City and state of practice; (4) Cell phone number. We arranged this data in a table and, from there, we went on to search the Lattes Platform, where, through the complete names of the professionals, we found a certain number of curricula. Finally, on the CFM website, we collected the specialization and the date of registration in the Council using the professionals’ full names.

We used the SPSS Version 26 software and the MAXQDA Analytics Pro 2020 qualitative analysis software for descriptive data analysis. Initially, a qualitative content analysis was performed to identify elements with analytical and explanatory potential considering the research questions. Then, frequency distribution tables, graphics,

Table 1. Distribution of Doctors in Brazil12 and Doctors for Life by Federation Unit, including absolute and relative frequency.

FU	Doctors in Brazil		Doctors for Life	
	N	(%)	N	(%)
Rondônia	3,160	0.6	4	1.4
Acre	1,058	0.2	0	0
Amazonas	5,398	1	3	1.1
Roraima	975	0.2	0	0
Pará	9,212	1.8	7	2.5
Amapá	1,006	0.2	1	0.4
Tocantins	3,155	0.6	2	0.7
Maranhão	7,642	1.5	5	1.8
Piauí	5,250	1	2	0.7
Ceará	15,100	2.9	6	2.2
Rio Grande do Norte	6,741	1.3	5	1.8
Paraíba	8,194	1.6	2	0.7
Pernambuco	19,318	3.7	21	7.6
Alagoas	5,266	1	4	1.4
Sergipe	4,379	0.8	5	1.8
Bahia	24,413	4.7	17	6.2
Minas Gerais	56,412	10.8	33	12
Espírito Santo	11,070	2.1	8	2.9
Rio de Janeiro	63,873	12.2	24	8.7
São Paulo	146,970	28.1	62	22.5
Paraná	28,513	5.4	11	4
Santa Catarina	18,927	3.6	13	4.7
Rio Grande do Sul	32,838	6.3	28	10.1
Mato Grosso do Sul	6,552	1.3	3	1.1
Mato Grosso	6,666	1.3	3	1.1
Goiás	16,027	3.1	4	1.4
Distrito Federal	15,413	2.9	3	1.1

Source: Authors.

central tendency measures (Mean, Median, and Mode), and normality identification were generated. Furthermore, all data were compared with the data on the population of doctors in Brazil presented by Scheffer *et al.*¹². Thus, to develop the analyses, the following characteristics concerning the MPV population were listed: (1) socio-demographic characteristics; (2) distribution according to states; (3) academic engagement; and (4) medical specialties.

Factor Analysis (FA)¹³ was used to test the level of uniformity of those doctors with a Lattes curriculum. In order to do so, we used the R software. Function for main axis, minimum residual, weighted least squares, and maximum likelihood factor analysis were combined. The packages used were “psych”¹⁴ for the FA, and “GPArotation”¹⁵ to introduce the *varimax* rotation. In order to measure the impacts of gender, states’ HDI, length of professional practice, and type of higher education institution on the types of specialization and participation in the academic field, we developed the following equation, which provides a mathematical visualization of the tests that will follow:

$$Y_n = \alpha_n + \beta_{n1}X_1 + \beta_{n2}X_2 + \beta_{n3}X_3 + \beta_{n4}X_4 + \epsilon_n$$

Y_n represents these different specializations or the level of participation in the academic field; X_n represents the independent variables previously described. Regression analysis is one of the social research’s most widely used dependency analysis techniques for this type of relationship structure between variables. Multiple Regression Analysis analyzes the relationship between a single dependent variable and several independent variables¹⁶. The R software was also used to run the multiple regressions with the “lavaan” package¹⁷.

Who are they, and how representative are the MPVs nationwide?

Regarding sociodemographic characteristics, the population comprising MPVs is divided between 56.5% men and 43.5% women – this proportion approximates the national demographics of 53.4% male and 46.6% female¹² –, with active CFM registration, on average, since 1996 (sd=11.95). Among those with a Lattes curriculum, 55% reported receiving their degrees from public universities, a figure well above the 25.8% who graduate from this type of institution nationwide¹². The distribution of the Doctors for Life population by Federation unit is described

below, stressing the high percentage concentration in the states of Rondônia, Sergipe, and Pernambuco and low percentage concentration in Distrito Federal, Paraíba, Goiás, and São Paulo.

Academic engagement

When we refer to academic engagement, we mean the teaching, research, and extension activities carried out within the academic environment by MPVs, either during or after graduation. According to Table 2, approximately 40% of the doctors listed on the MPV site had a registered Lattes curriculum. Among these, one in four declared a master’s degree, and one in ten a doctorate. More than 60% had registered some kind of production or participation in scientific events. Table 3 demonstrates the results of the Factor Analysis of Academic Engagement. The FA shows adequate Sum Square Loadings (>1); Adequate Bartlett’s Test ($p < 0.001$); and adequate KMO value (≥ 0.8). The factor loadings values are also adequate (> 0.4). The test shows a homogeneity of those with a Lattes curriculum. Most of them are involved in some kind of production or participation in scientific events and/or post-graduate academic training. Therefore, we hypothesize that, possibly, the 60% who do not have a Lattes curriculum are the ones who most often do not have this kind of involvement.

Furthermore, after performing Multiple Regression tests, we observed that none of the independent variables of 1) gender; 2) length of time working as a physician; 3) HDI of the state of practice; and 4) character of the higher education institution significantly impacts the level of academic engagement developed by the analyzed physicians, therefore not being explanatory for such behavior.

Specialization: Homeopathy and Acupuncture among MPVs

In Brazil, 38.7% of the doctors are considered “generalists” without a specialist title, and 61.3% are specialists¹². In our MPV population, we have a very close number of specialists, 59.4%. Table 4 shows that some types of specialties stand out as the most present in the Doctors for Life population: Gynecology and Obstetrics; Pediatrics; Occupational Medicine; and Internal Medicine. However, since the COVID-19 pandemic involved almost the entire contingent of physicians in the country, it is interesting to see which categories are more present when compared to the

Table 2. Academic Engagement.

Variables	N	Min	Max	Doctors for Life Mean	Média Médicos Brasil
Does he/she have a Lattes curriculum?	276	0	1	0.40	-
Does he/she have a master's degree declared in the Lattes curriculum?	110	0	1	0.25	-
Does he/she have a doctorate declared in the Lattes curriculum?	110	0	1	0.10	-
Does he/she have academic/scientific productions declared in the Lattes curriculum?	110	0	1	0.63	-
Does he/she have participation in scientific events declared in the Lattes curriculum?	110	0	1	0.63	-

Source: Authors.

Table 3. Factor Analysis of “Academic Engagement”.

	Academic Engagement
Does he/she have a Lattes curriculum?	0.761
Does he/she have a master's degree declared in the Lattes curriculum?	0.594
Does he/she have a doctorate declared in the Lattes curriculum?	0.445
Does he/she have scientific productions declared in the Lattes curriculum?	0.896
Does he/she have participation in scientific events declared in the Lattes curriculum?	0.866
SS Loadings	2.683
% Variance	0.537
Bartlett's Test	p<0.001
KMO	0.800

Note: The table entries are the values of the factorial loadings with Varimax rotation.

Source: Authors.

percentage of physicians in the same specialty nationwide. In this case, the categories that stood out the most were: Homeopathy and Acupuncture (with a percentage value eight and six times higher, respectively, than expected by the number of specialized doctors in this category in Brazil). Followed by Endocrinology and Metabology; Traffic Medicine; Pulmonology; Occupational Medicine; Otorhinolaryngology; Gynecology and Obstetrics; Nutrology; and Neurosurgery.

Table 5 lists the results of multiple regressions, through which we can see that Homeopaths and Acupuncturists, the category with the highest

relative rate when compared to the population of specialists in Brazil, are more concentrated in states with a higher *HDI*. Furthermore, acupuncturists in particular are mostly male (77.8%, a figure far above the 48.8% of male acupuncturist physicians in Brazil¹²). Other significant characteristics found with the regressions were: a higher concentration of female Endocrinologists and Metabologists (100%, higher than the 70.6% of an also majority of women practicing in this specialty¹²); pulmonologist physicians active longer than the average in the CFM (which is consistent with a high average age of pulmonologist physicians in Brazil of 50.9 years¹²); higher concentration of male Otorhinolaryngologists (81.8%, higher than 59.5% of an also majority of males active in this specialty¹²); a greater presence of gynecologists and obstetricians in regions with the highest *HDI*, similarly to homeopaths and acupuncturists, and with a characteristic that these professionals in our population are all trained in public institutions (data referring to those who entered this information in the Lattes curriculum); and a greater concentration of nutrologists in our population in regions with low *HDI*.

Discussion and conclusions

Considering the centrality of Homeopathy and Acupuncture in the MPV specialties (when compared to the population of specialists in Brazil), we enter a context that has stood out since 2006. The Ministry of Health approved this year the National Policy for Integrative and Complementary Practices (PNPIC) in the Unified Health System (SUS), whose implementation, according to the official document, “meets the need to

Table 4. Specialties: MPV and Brazilian Doctors.

Specialties	N	Min	Max	Doctors for Life Mean	Doctors in Brazil Mean
Specialty: Internal Medicine	164	0	1	0.09	0.11
Specialty: Endocrinology and Metabology	164	0	1	0.03	0.01
Specialty: Homeopathy	164	0	1	0.05	<0.01
Specialty: Acupuncture	164	0	1	0.05	<0.01
Specialty: Dermatology	164	0	1	0.04	0.02
Specialty: Cardiology	164	0	1	0.02	0.04
Specialty: Pediatrics	164	0	1	0.10	0.10
Specialty: General Surgery	164	0	1	0.07	0.09
Specialty: Traffic Medicine	164	0	1	0.03	0.01
Specialty: Ophthalmology	164	0	1	0.05	0.04
Specialty: Orthopedics and Traumatology	164	0	1	0.05	0.04
Specialty: Family and Community Medicine	164	0	1	0.04	0.02
Specialty: Pulmonology	164	0	1	0.02	<0.01
Specialty: Urology	164	0	1	0.02	0.01
Specialty: Occupational Medicine	164	0	1	0.09	0.05
Specialty: Otorhinolaryngology	164	0	1	0.07	0.02
Specialty: Gastroenterology	164	0	1	0.02	0.01
Specialty: Radiology and Imaging Diagnosis	164	0	1	0.04	0.03
Specialty: Gynecology and Obstetrics	164	0	1	0.12	0.08
Specialty: Nutrology	164	0	1	0.02	<0.01
Specialty: Neurosurgery	164	0	1	0.02	<0.01
Specialty: Psychiatry	164	0	1	0.03	0.03

Source: Authors.

Table 5. Multiple Regression Analysis of “Specializations”.

	Homeopathy	Acupuncture	Endocrinology and Metabology	Traffic Medicine	Pulmonology
Gender	-0.096	-0.209*	0.242*	-0.169	-0.058
Length of time working as a physician	-0.057	0.078	0.052	0.185	-0.221*
HDI of the state of practice	0.286**	0.251*	-0.156	0.159	-0.198
Character of the higher education institution	0.126	-0.048	0.019	0.080	-0.109
	Occupational Medicine	Otorhinolaryngology	Gynecology and Obstetrics	Nutrology	Neurosurgery
Gender	-0.140	-0.246*	0.139	0.022	-0.128
Length of time working as a physician	-0.156	0.117	-0.055	0.079	0.141
HDI of the state of practice	0.007	0.037	0.210*	-0.283**	0.094
Character of the higher education institution	0.076	0.108	0.246*	-0.105	0.154

* ≤ 0.05 ; ** ≤ 0.01 .

Source: Authors.

incorporate and implement experiences that are already being developed in the public network of many municipalities and states. Among which, we highlight those in the Traditional Chinese

Medicine scope – Acupuncture, Homeopathy, Phytotherapy, Anthroposophic medicine, and Thermalism-Crenotherapy¹⁸. However, the implementation did not occur without controversy,

given that the Brazilian Academy of Sciences, the National Academy of Medicine, and the Federal Council of Medicine stated concerns in 2018 regarding the insertion of ten new alternative therapy practices in the SUS. They consider it central to public health policies that certain criteria must be considered, such as “the resulting benefit to the population served, the impact on the cost of care, the system’s ability to offer the new technology uniformly and fairly to the entire health system, and, importantly, having evidence that the offered technology has efficacy and therefore justifies the cost of offering it”¹⁹.

Incorporating these practices in the SUS is seen as fundamental since they are becoming increasingly legitimate in the social sphere. Therefore, it demands specific guidelines to provide adequate input supply and monitoring and evaluation actions that do not remain restricted to purely private practices²⁰. In Brazil, during the pandemic, the National Health Council (CNS) approved, in May 2020, a recommendation for the inclusion and dissemination of Integrative and Complementary Practices (Pics) in the treatment to fight COVID-19. The justification was that, in the absence of a medication for the cure, professionals could use the practices to complement the assistance, which, according to the Council, presented some improvement reports in certain treatments²¹.

Among the PNPIC practices, Acupuncture and Homeopathy stood out with the highest relative rate among the MPV population. They are characterized by controversies and legitimation strategies, which have been transformed according to different contexts²². “In Brazil, both homeopathy and acupuncture are considered medical specialties recognized by the Federal Council of Medicine (CFM) since 1980 and 1995, respectively, with the consultation and medical procedures (repertorization in homeopathy and application of needles in acupuncture)”²³(p.52). Investigation into the significant affiliation of homeopaths and acupuncturists to the MPV movement can shed light on understanding representations of and approaches to specific medical rationalities, allowing us to distinguish which categories and ideas regarding health and disease processes are in dispute²².

It is known that such practices are part of therapeutic approaches based on the justification of the promotion, maintenance, and recovery of a health model anchored in principles such as humanized and integral care. In other words, based on the vision of a global individual, who is under

the light of co-responsibility in health, both the professional and the patient, “thus contributing to the increase of citizenship”¹⁸. Homeopathy and Acupuncture include complex medical systems and different therapeutic resources, referred to by the World Health Organization (WHO) as “traditional and complementary/alternative medicine”. The WHO enunciated the term in 1962 as “a technologically stripped practice of medicine coupled with a set of traditional medical knowledge”²⁴. It is proposed as an alternative to specialized, techno-scientific medicine. However, it is a definition that does not comprise the plurality of the practice. For this reason, it subsequently designates diverse therapeutic practices and is often adverse to scientific medicine. Today, it comprises any form of healing that is not strictly biomedical²⁰.

Thus, we observe an approximation to the statements of the MPVs, who generally advocate a holistic approach to the individual and humanized care, claiming detachment from commercial and political interests and ventures involving the “pharmaceutical industry”, responsible for the development and wide sale of COVID-19 vaccines. In the petition called “Carta do Brasil” they report:

*If some of the government leaders were not subservient to the media’s single narrative and adopted the measures that would safeguard human life, they would not flex ANVISA’s protocols to satisfy the powerful lobby of the pharmaceutical industries, promoting the controversial experimental vaccines and presenting them as the final solution to the pandemic. However, their use’s adverse effects and deaths are increasing daily*¹⁰.

*Following the millenary principles of good medical practice and considerably reducing the pressure of the pharmaceutical industries (national and international) in these guidelines, we have defined as the main pillars for Health Care at Covid-19 the prevention of diseases and the promotion of health, following the strategies below: 1) actions aiming to increase the immunity of the population, with the promotion of healthy habits, proper nutrition, regular sleep, reliable information, stress reduction, outdoor activity, regular sun exposure, incentives to cultural and sporting activities, religiosity or spirituality, among others [...]*¹⁰.

Therefore, the point that stands out concerns the nature of the relationship between vaccine hesitancy, advocacy for early treatment, and the practice of alternative/integrative/complementary therapies. The advocacy and promotion of alternative therapies to the biomedical model of medicine, identified in MPV statements, find

good acceptance in anti-vaccination discourses. This relationship has been questioned by WHO²⁵ and investigated by researchers²⁶. Other authors²⁷ also point to a marketing bias found in the relationship between vaccine denial and the sale of health services on Brazilian Youtube channels:

There is a collaboration between channels that promote alternative health services. From 20 channels spreading M&D [misinformation and disinformation] about vaccines, 11 mentioned Lair Ribeiro (Dr. Lair Ribeiro Oficial), a cardiologist and nutrologist that promotes alternative therapies, diets, and pseudoscience—homeopathy, detox, law of attraction, quantum medicine—in his videos and talks. The collaboration occurs through the reproduction of videos from “associate” channels or via endorsement of content creators and their courses. Besides that, the channels promote other professionals that support alternative therapies or other content creators that endorse M&D about vaccines²⁷(p.4).

Thus, this is an important event in the analysis performed, and it endorses concerns and findings in the literature, which note the significance

of this correlation. The defense of an integral, holistic, and humanized health model is often mistakenly appropriated, creating a powerful weapon against immunization practices through vaccines. The criticism and dissatisfaction with the biomedical model, overspecialization, and proximity to the pharmaceutical industry, observed in recent decades in Brazil²⁸, in this case, are conveniently used to attack vaccination and advocate early treatment. The example noted²⁷ is important to understand the discussion in its complexity since they demonstrate that many professionals offering alternative therapy and natural methods services are part of a complex system of business relationships and vaccine denial²⁷. Therefore, when addressing this particular problem, in addition to describing it, it is necessary to establish its correlations with a set of events, practices, political decisions, economic linkages, shared beliefs, and, in general, a chain of processes that configure its social character and dispositions when confronted with other discourses²⁸, which, in this article, we leave as pointers for future work.

Collaborations

IW Ferrari and M Grisotti worked on formulation of the research problem; data collection; data analysis; review of literature; final drafting. LC Amorim worked on data collection; data analysis; data description. LZ Rodrigues worked on data collection; review of literature. MT Ribas worked on data collection. CU Silva worked on data collection.

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