

**IMMUNE BODY? DISCOURSES ABOUT PHYSICAL EXERCISE IN A
BODYBUILDING GYM**

***CORPO IMUNE? DISCURSOS SOBRE EXERCÍCIO FÍSICO EM UMA ACADEMIA
DE MUSCULAÇÃO***

***¿CUERPO INMUNE? DISCURSOS SOBRE EJERCICIO FÍSICO EN UN GIMNASIO
DE MUSCULACIÓN***



Thyerre TORRES¹

e-mail: thyerre.anias@facemp.edu.br



Alan Camargo SILVA²

e-mail: alancamargo10@gmail.com



Thiago Barcelos SOLIVA³

e-mail: thiago104@yahoo.com.br

How to reference this paper:

TORRES, T.; SILVA, A. C.; SOLIVA, T. B. Immune body? Discourses about physical exercise in a bodybuilding gym. **Rev. Cadernos de Campo**, Araraquara, v. 24, n. 00, e024021, 2024. e-ISSN: 2359-2419. DOI: <https://doi.org/10.47284/cdc.v24i00.18963>



| **Submitted:** 25/01/2024

| **Revisions required:** 02/04/2024

| **Approved:** 23/04/2024

| **Published:** 11/12/2024

Editors: Prof. Dr. Maria Teresa Miceli Kerbauy
Prof. Me. Thaís Cristina Caetano de Souza
Prof. Me. Luana Estela Di Pires

¹ University Center for Science and Entrepreneurship (UNIFACEMP), Santo Antônio de Jesus - BA - Brazil. Professor at the University Center for Science and Entrepreneurship (UNIFACEMP)

² Colégio Brasileiro de Ciências do Esporte (CBCE), Rio de Janeiro - RJ - Brazil. Coordinator of the Body and Culture Thematic Working Group of the Brazilian College of Sports Sciences (GTTCC/CBCE).

³ Universidade Federal do Sul da Bahia (UFSB), Itabuna - BA - Brazil. Adjunct Professor at the Territorial Development Training Center of the Paulo Freire Campus of the Federal University of Southern Bahia (UFSB).

ABSTRACT: Anchored in the debate about medicalization, the objective of this study was to understand the relationships between physical exercise and immunity constructed in a bodybuilding gym during the COVID-19 pandemic. Twelve semi-structured interviews were triangulated with those who frequent the establishment with the academy's publications on a social network. For data analysis, discourse and image analysis were combined. The results indicated how medicalization processes constituted, in multiple ways, a large part of the emic-imagetics discourses about physical exercise in the pandemic context. It is concluded that biopsychosocial aspects permeate the idea of immunity and its relationships with "exercising" in bodybuilding.

KEYWORDS: Body practices. Gym. Immunity. Medicalization. COVID-19.

RESUMO: *Ancorado no debate sobre medicalização, o objetivo deste estudo foi compreender as relações entre exercício físico e imunidade construídas em uma academia de musculação durante a pandemia de COVID-19. Foram trianguladas 12 entrevistas semiestruturadas aos(as) frequentadores(as) do estabelecimento com as publicações da academia em uma rede social. Para o tratamento dos dados, foram articuladas a análise de discurso e de imagens. Os resultados indicaram como os processos de medicalização constituíram, de forma múltipla, grande parte dos discursos êmico-imagéticos sobre exercício físico ante o contexto pandêmico. Conclui-se que aspectos biopsicossociais atravessam a ideia de imunidade e suas relações com o "exercitar-se" na musculação.*

PALAVRAS-CHAVE: *Práticas corporais. Academias de ginástica. Imunidade. Medicalização. COVID-19.*

RESUMEN: *Anclado en el debate sobre la medicalización, el objetivo de este estudio fue comprender las relaciones entre el ejercicio físico y la inmunidad construidas en un gimnasio de musculación durante la pandemia de COVID-19. Se triangularon 12 entrevistas semiestruturadas a quienes frecuentan el establecimiento con las publicaciones de la academia en una red social. Para el tratamiento de los datos, se combinaron análisis del discurso y de la imagen. Los resultados indicaron cómo los procesos de medicalización constituyeron, de manera múltiple, gran parte de los discursos émico-imagéticos sobre el ejercicio físico en el contexto de pandemia. Se concluye que aspectos biopsicosociales permean la idea de inmunidad y sus relaciones con el "ejercicio" en la musculación.*

PALABRAS CLAVE: *Prácticas corporales. Gimnasios. Inmunidad. Medicalización. COVID-19.*

Introduction

The socio-historical construction of the medicalization process presents multiple understandings of the intervention of medicine in Western society since the 18th century (Foucault, 1977). The pioneering and classic works of Zola (1972) and Illich (1975) denounce the moral technification of the body and the controlling power of modern medicine (but not only...) over various aspects of life. It should be noted that "the history of the body in the 20th century is that of a medicalization without equivalent" (Moulin, 2008, p. 15, our translation).

Despite the polysemy and difficulty in defining the concept of medicalization in the literature (Camargo Júnior, 2013; Zorzanelli; Ortega; Bezerra Júnior, 2014), this paper adopts the perspective of Conrad (2007), who understands the term as a process in which a non-medical problem is redefined and treated as a medical problem, usually in terms of diseases and disorders. Thus, the medicalization of social life can be understood as the manifestation of the moral ideology of health, called *healthism* or *bodyism* (Ortega, 2004).

From this point of view, it is assumed that there is a technical-scientific-market-technological process of biologizing the social, reducing and pathologizing the subject who exercises by holding them responsible or blaming them for their health care (Ferreira; Castiel; Cardoso, 2012). In other words, a process of subjectivization emerges in which the subject is led to believe that health promotion is a purely personal matter, of self-management and self-responsibility (Rohden, 2017).

With this theoretical and conceptual overview of medicalization⁴, the question arises as to how discussions regarding the practice of physical exercise in gyms have transformed the relationships of those who attend with medicalized self-care, especially in the context of the COVID-19 pandemic (scientifically called *SARS-CoV-2*). This virus is recognized as causing severe acute respiratory syndrome and is widely known as the new coronavirus (Pitanga; Beck; Pitanga, 2020; Pitanga *et al.*, 2021).

It is known that, physiologically, there is a relationship between white defense cells (leukocytes) and the immune and inflammatory responses related to physical exercise (Negrão; Barretto; Rondon, 2019). In addition, the scientific literature on training shows that the function of the defense system is modulated according to the frequency, intensity, and duration of regular

⁴ For further clarification on medicalization, we recommend the critical and synthetic texts by Gaudenzi and Ortega (2012) and Carvalho *et al.* (2015) when they not only explore the historical construction of the concept, but also situate the theoretical-methodological perspectives of the classic authors on this subject.

physical exercise (Fleck; Kraemer, 2017). However, the question arises as to how these aspects are demonstrated in given socio-cultural scenarios.

In this context, it should be noted that training the body has been an ancient practice since the Greeks and Romans, when they were preparing for great wars or competitive games (Corbin; Courtine; Vigarello, 2012). The act of training has taken on different senses and meanings over time (Nogueira, 2023), just as, in particular, the gyms themselves have changed according to social and economic contexts, dialoguing with a diversity of notions of the body, health, and illness (Silva; Ferreira, 2020). More than the physical-organic improvement typical of the commitment to modern (bio)medicine (Le Breton, 2016), gyms are spaces that bring people together around an idea, a style, a way of being and behaving (Sabino, 2004; Silva, 2017).

Thus, with regard to the relevance of this study, it is argued that the pandemic effect of COVID-19 has altered representations about the relationship between immunity and physical exercise, in the direction of other self-care, such as the association with diet (Feldman; Goodman, 2023). More precisely, the question is to what extent a "strong, defensive body" is seen as morally legitimate in the context of bodybuilding gyms. It is in this sense that this study aligns itself to contribute to or call into question the medicalization processes that run through physical exercise practices, dialoguing directly with the very society that is (re)constructed in these social spaces (Silva, 2022).

Therefore, this study aimed to understand the relationships between physical exercise and immunity built in a weight training gym during the COVID-19 pandemic.

Methodological procedures

This qualitative study is based on the interpretative phenomenological perspective (Schwandt, 2006), considering that discourse is understood as a game, inserted in the order of the signifier (Foucault, 1999a), and words establish the order of things (Foucault, 1999b). In line with the methodological guideline proposed by Foucault (1984, p. 13, our translation), the research is guided by the aim of "knowing how and to what extent it would be possible to think differently instead of legitimizing what is already known".

The investigation used the triangulation of techniques, a resource that enhances the understanding of reality (Turato, 2013), applied to a bodybuilding gym located in the interior of a city in the *Recôncavo Baiano* during part of the COVID-19 pandemic period. Semi-structured interviews were conducted with patrons, and the establishment's posts on a social

network between 2021 and 2022 were analyzed. A total of 12 face-to-face interviews were conducted with seven women and five men, aged between 20 and 55, all with at least two years' experience in bodybuilding. In addition, the digital material analyzed consisted of 11 posts published on the gym's official Instagram account. The profile of the study site is shown in Chart 1 below:

Chart 1 - Bodybuilding gym profile

Information	Characteristics
Geographical territory	The <i>Recôncavo Baiano</i> comprises 20 small and medium-sized municipalities.
City	Santo Antônio de Jesus
Number of inhabitants	100 thousand (approximately)
Location of the gym	Center
Structure	Inside a <i>shopping center</i>
Public served	Varied, with incomes between four and 20 minimum wages
Opening hours	5am - 9pm
Number of professionals	Seven to eight Physical Education teachers/trainees
Tuition fees	R\$ 125.00 (USD 20,63) R\$ 200.00 (USD 33,00) (depending on the contract plan)
Modalities offered	Bodybuilding and "group classes" (functional, <i>fit dance</i> and aeroboxing)
Year founded	2001

Source: Author's elaboration.

To process the textual material (transcribed interviews), Gill's discourse analysis (2010, p. 250) was used in order to understand "the functions, or activities, of speech and texts, and to explore how they are carried out". In order to explore the digital material (posts on *Instagram*), we favored Joly's (1996) image analysis, which suggests understanding visual aspects based on plastic, iconic, and linguistic messages. It should be noted that there was no intention to analyze whether or how the participants in the survey related to the establishment's digital marketing.

This research was guided by the ethical procedures of Resolution 466/12 and 510/16 of the National Health Council. In this text, it should be noted that fictitious names have identified the subjects of the study.

Presentation and discussion of results

The analytical articulation of the above-mentioned image-textual materials made it possible to capture two principal discursive axes: a) Physical exercise as a "remedy"; b) Physical exercise as an "immunological agent". The first axis refers to the supposed potential to exercise against specific ailments, and the second to the possible potentiation of antibody

production. It is noteworthy that both discursive axes are inseparable and crossed by the notion of medicalization, referring especially to the pandemic context of COVID-19.

Physical exercise as "medicine"

The discourse of physical exercise as a "remedy" has considerably crossed the perspective of most of the interlocutors. This was evident in the interviews when they repeatedly highlighted the medicalized relationships between physical exercise and COVID-19. Although there have been studies from the time of the pandemic identifying possible correlations between physical exercise and a reduction in COVID-19 illnesses (Pitanga; Beck; Pitanga, 2020; Pitanga *et al.*, 2021), it is striking how moving has become synonymous with non-disease.

Safi (woman, self-declared brown, 38 years old) reported that when she goes for her routine clinical examinations, the doctor asks her if she exercises. She adds: "Training is medicine! It's medicine for everything! Another interlocutor, Tuca (female, self-declared white, 28 years old), points out that "training the body is therapeutic and a healthy habit!". Emblematically, Carla (a woman, self-declared brown, 38 years old) only became a bodybuilder during the COVID-19 pandemic and even said the following: "training is indispensable because the body responds in other ways to diseases!".

In all the interviews that make up this research, it was possible to see that there was a concern with the biological health of the body and the prevention of diseases (read viral contagion), so physical exercise practices were always predominant in the subject's life. Specifically, in this pandemic, discourses referring to the search for a so-called healthy body to avoid "body weakness" and "low immunity" were frequent in the viewpoint of the interlocutors to justify the need for physical exercise. This is partly due to the classic overlap or tension between the notions of "promotion" and "prevention" in the health field (Czeresnia, 2017; Buss, 2017).

Thus, the search for therapeutic answers related to COVID-19 has intensified the medicalization processes in the bodybuilding gym investigated. In this scenario, physical exercise came to occupy a central position in the use of individuals' bodies, being conceived as a kind of indispensable therapy for maintaining health during the pandemic period. The interviewees adopted a discourse that attributed to physical exercise the ability to promote "high immunity" as opposed to "low immunity", a perception that was interpreted as a risk factor both for COVID-19 infection and for possible complications resulting from the virus. In the absence

of exercise, the participants perceived themselves as "deviant" individuals, reinforcing a medicalized idea analyzed by Conrad and Schneider (1992).

Thus, the practice of physical exercise was detected as a remedy during the pandemic, shaping new body technologies in the direction of reinforcing or accentuating the intersection between the notions of health disease and movement. The interlocutors' search for improved health (i.e. from a biological point of view) was also perceived, as opposed to illness. Ferreira, Castiel, and Cardoso (2012, p. 837) argue that "physical activity is often taken as a remedy and a sedentary lifestyle as a disease, in a clear process of medicalization".

An example of this is the study by Fraga *et al.* (2009), who identified a process of medicalization in the subjects' discourses when they claimed that walking served as a medicine to be taken. Silva and Ferreira's (2018) research also shows how some subjects appropriated bodybuilding as a (bio)medical logic, in the sense of curing their ailments. However, here we see how the pandemic context has given physical exercise another medicalized character of "medicine", as if they were "saved" from any viral involvement of COVID-19.

In this context, the publications of the bodybuilding gym in question showed the promotion of medicalized care based on physical exercise:

Figure 1 - Post about exercise as medicine in a "bottle"



Source: The establishment's official account on *Instagram*. Accessed on: Jul. 2020.

Figure 2 - Post about exercise as a remedy in "box"



Source: The official account of the establishment is on *Instagram*. Accessed on: Jul. 2020.

In Figures 1 and 2, it was possible to capture how the publications commodified physical exercise or the establishment itself in order to sell their services in pandemic times. Whether in a "bottle" or a "box", the posts indicated what practitioners should take during the pandemic. The plastic and linguistic messages of both figures reveal how the (bio)medical rationality represented in the idea of medicine has the ability to solve problems that escape the biological dimension.

In both figures, for example, it can be seen that sadness/happiness and lack/excess of disposition, among other aspects, are used in the messages of the posts with the aim of making the subjects dependent on physical exercise, as if it were a drug for life. In addition, the idea of the health professional, represented in the figure of the "health professional who should be consulted" to prescribe "guided physical exercise" or a place for "treatment" before COVID-19, is in line with Foucault's (1986) assumption when he points out that, in general, biological knowledge is installed that requires the accompaniment of a specialist in this type of rationality of the body. In the same vein, Conrad and Schneider (1992) point out that there is usually an assumption of (scientific) authority that can solve health-related problems.

In these analyzed images, the body in a supposed state of pre-illness from COVID-19 becomes the object and target of power, that is, "the body that is manipulated, shaped, trained, that obeys, responds, becomes skillful or whose forces are multiplied" (Foucault, 2004, p. 117).

It is understood that such publications allude to physical exercise, in the words of Rohden (2017), as a commodified or fetishized health need, connecting to the concept of pharmaceuticalization by transforming so-called healthy subjects into hostages of abstract improvements of certain lifestyles through the consumption of pharmacological resources, as discussed by Williams, Martin, and Gabe (2011).

It should be noted that, obviously, the processes of medicalization/pharmaceuticalization are not limited to the context of COVID-19, since there is already a discursive capillarization about the different drugs that currently exist in the so-called health market. However, this paper argues that marketing devices have been enhanced by the logic of the remedy, focusing not only on normalizing or repairing the self, but also on an eloquent search for an "improved body" which, at first, is not directly linked to the beauty industry, as discussed by Castro (2010).

Therefore, in this pandemic, the quest to free themselves from COVID-19 has led subjects to symbolize their health conditions based on a biologizing discourse, typical of medical-social authority (Conrad, 2007). Thus, given this empirical scenario, the idea of the "medicated body" (therefore also immune) emerges as a new phase of modern (bio)medicine and, in this case, derived from the practice of physical exercise. In fact, the current notion of health is directly linked to the idea of stronger immunity through the social formation of an individual subjectivity in which the subject feels obliged to "move", as will be seen below.

Physical exercise as an "immunological agent"

It was possible to observe that the connections between physical exercise and immunity have gained prominence in the context of the pandemic. According to the interviewees, exercise in the gym was conceived in a medicalized way in response to COVID-19.

Guga (male, self-declared black, 21 years old) explained: "In general, physical activity and diet can help immunity!" and added: "The pandemic has made many people come to the gym, because the treatment is free!" Silva (female, self-declared brown, 23 years old) said: "Any exercise can improve immunity, and I think the fact that I was training when I had COVID-19 made the symptoms mild." Safi (woman, self-declared brown, 38 years old) pointed out: "Training improves my immunity." Tuca (female, self-declared white, 28 years old) said: "Training can improve immunity, and not working out makes your body feel weak." Dona (female, self-declared brown, 55 years old), who has been practicing bodybuilding for 20 years, said: "The academy helped me a lot because I even had COVID-19, and I didn't know it." Mocê

(male, self-declared white, 52 years old), a bodybuilder for 18 years, said: "In addition to COVID-19, other illnesses can happen to those who don't train in the gym!"

We thus identified how gym-goers materialized the importance of the idea of immunity, especially during the pandemic, in their search for physical exercise as a way of improving their bodies. In addition, the interlocutors suggest how the physical exercise routine has reduced the impact of the negative symptoms of COVID-19. Thus, the discursive reproduction of what society feared in times of pandemic was perceived, which, in some way, aligned with the scientific perspective of the "athlete's record", defended by the president at the time (Brito, 2022).

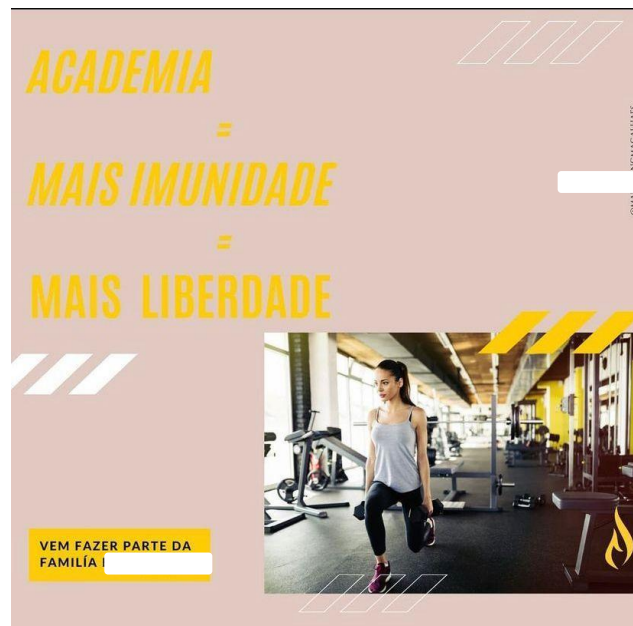
Thus, being physically active and immune would mean being competent in the way you manage your own life. This biological scrutiny of daily life affects the consumption of health services, as Boltanski (2004) problematizes. Therefore, although the pandemic was a reality that involved various aspects that went beyond the (bio)medical framework, the interlocutors internalized that possible health problems in the future would derive from their conduct. Caponi (2009, p. 530) points out that "the medicalization of conduct classified as abnormal has spread to practically every area of our existence".

In this way, the interviewees felt the need to invest in physical exercise as an "immunological agent", creating a new pattern of self-management in times of pandemic. Using an expression from Lupton (1993), COVID-19 has implanted a model of "healthy lifestyles" in the bodybuilding gym scene as well. However, it should also be noted that the process of body cultivation can be different depending on sociocultural and economic contexts in dialog with different social markers of difference, as Silva and Ferreira (2021) identified.

Thus, in the micro-reality studied, self-care arrangements or devices have been created through the ideas of techno-scientification of physical exercises in an uninterrupted search for "health". Because subjects were increasingly autonomous in the sense of being encouraged to take responsibility for their condition in life (Clarke *et al.*, 2003) or, in Foucault's (2008) terms, "entrepreneurs of themselves", immunity became an ethical-moral imperative in these physical exercise spaces based on a certain discourse of knowledge-power.

In this scenario, the bodybuilding gym's publications also bombarded the public with the positive idea of physical exercise and immunity:

Figure 3 - Post on the relationship between physical exercise and immunity in the sense of freedom



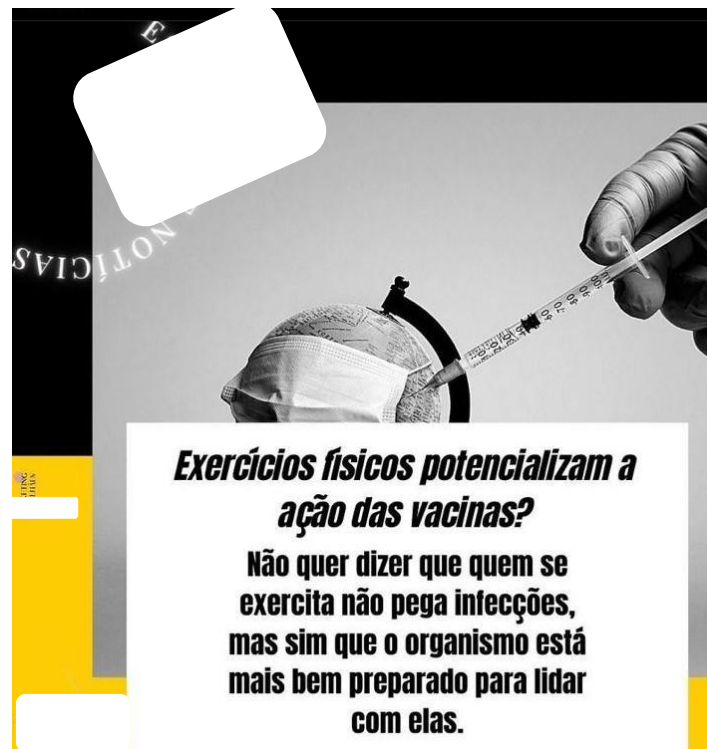
Source: the establishment's official *Instagram account*. Accessed on: Jul. 2020.

Figure 4 - Post on the relationship between physical exercise and immunity in the sense of risk



Source: The establishment's official account on *Instagram*. Accessed on: Jul. 2020.

Figure 5 - Post on the relationship between physical exercise and immunity towards vaccination



Source: The establishment's official account on *Instagram*. Accessed on: Jul. 2020.

Figures 3 and 4 show how the frame, size, and colors of the images create a standardized identity for the academy in order to assert a certain authority in the message during the fight against COVID-19. Although they don't explore the plastic elements as much, we can see how the linguistic message is decisive in establishing that the bodybuilding gym would be fundamental not only in breaking the isolation and social distancing represented in the idea of freedom, but also in reducing the chances of hospitalization. This somehow obscures the need for demedicalization derived from multisectoral initiatives and public policies (Castiel; Guilam; Ferreira, 2010).

Specifically, in Figure 3, we detected how the linguistic process attributes a hypervalorization to the practice of physical exercise as a way to avoid contagion of the virus or complications in cases of COVID-19 infection. There is a link between the establishment and the increase in immunity. It should also be added that the immaterial sale of freedom by the establishment alludes to the imaginary that it would be possible to leave the house and relate physically and face-to-face with other people without damaging one's health. The call made by the publication on social networks took place in the context of a ban on the opening of establishments such as gyms, a situation which, according to Dias, Coimbra, and Raposo

(2021), was directly linked to the influence of the business bourgeoisie in the *fitness* sector. In this scenario, going to the gym was seen as an opportunity to exercise the freedom to gather and interact socially. This practice reflects a typical behavior of scientific denialism, which has contributed to the significant increase in the number of cases of contamination and deaths (Ferreira, 2021).

As can be seen in Figure 4, there were also advertisements and posts on social networks encouraging the opening of these exercise centers and trying to show the benefits in terms of immunity, even with crowds of people. There has been a significant increase in concerns about immunity in the bodybuilding gym, backed up by recent scientific studies, confirming the need to raise awareness about the importance of continuing to exercise during the pandemic in order to withstand the effects of possible contamination by viral infections. The text in Figure 4 legitimizes the message by using supposed scientific data as a tool to convince people of the importance of physical exercise and, consequently, of returning to gyms. This creates discipline, which "is a principle for controlling the production of discourse. It sets its limits through the game of an identity that takes the form of a permanent updating of rules" (Foucault, 1999a, p. 36, our translation). At the time, the Association of Academies of Brazil created a COVID-19 crisis management committee to help academies and the entire niche that encompasses them face the difficulties that the coronavirus pandemic has caused (Dias; Coimbra; Raposo, 2021).

It is clear to see how the disease has branched out into a marketing perspective. It is argued that the body and the COVID-19 pandemic have always been in dialogue in the bodybuilding gym, with the idea of immunity as a central element of consumption. This confirms the problematization of Mendonça and Camargo Júnior (2012) when they point out that there is a medical-industrial/financial complex that uses epidemiological knowledge based on discourses of the medicalization of social life. In this case, there is a need for professional training in health that is critical of the medicalization industry (Rocha; Centurião, 2007) and that is not fundamentally linked to the body cult industry, as discussed by Castro (2010). This can be seen emblematically in the perspective of Silva and Ferreira (2020) when they argue about the need for an expanded intervention in the area of Physical Education based on sociocultural references that go beyond the physical-organic elements in gyms.

Figure 5, on the other hand, explores in depth not only the linguistic message, but also the plastic one, in the sense that COVID-19 would not take hold in that physical exercise environment. The post's *background* seeks to relieve or comfort gym-goers, suggesting that the world (represented in the image of the globe), by providing itself with resources against

COVID-19 (masks and vaccination), would favor a return to the establishment. An imagination is created that the body exercised it is synonymous with a body immune to the outside world.

During contact with those interviewed between 2021 and 2022, some subjects claimed that they were afraid to go to the gym during the "first phase of the disease". In the "second phase", it was clear that they were already comfortable in that space, as the optional use of masks and isolation/social distancing was fundamental in making them feel safer to return to physical exercise.

It was interesting to understand the timing of this study, which took place during the pandemic. For example, it's worth highlighting the point of view of Rô (male, self-declared black, 30 years old), who has been exercising for over ten years: "I was scared at first, but training can increase immunity, among other benefits. That's why I preferred to keep training. He also emphasized that he had had three doses of the vaccine and that he was unlikely to catch the virus and, if he did, it would be mild. Later, after a few months, this same interviewee reported that he had been infected with the virus, but had felt "almost nothing".

In short, Figures 3, 4, and 5 align with the interviewees' perspective, reinforcing a kind of medicalization expressed in the health promise of physical exercise. These image-emic discourses indicate that not exercising would make the subject deviant, so they should consume the establishment's services in order to avoid a pathologized life in the face of COVID-19. In fact, in the light of Conrad (2007), a lucrative market expansion was detected based on the abusive dictates of (bio)medical rationality that imposed or operationalized what a normal life would be with the assumptions of immunity to the virus. After all, Foucault (1986, p. 7) had already pointed out that "knowledge of diseases is the doctor's compass; the success of the cure depends on an accurate knowledge of the disease".

It is, therefore, understood that the interlocutors' reports and the bodybuilding gym's posts naturalized or normalized physical exercise as a reductionist biologizing formula to avoid contagion or weaken the virus. Moysés and Collares (2021) point out that medicalization is increasingly amplified and sophisticated at the level of molecular biology, which could be seen in the commitment to physical exercise during the context of COVID-19. Thus, we saw how medicalization was based precisely on the idea of moral and social control of the body in movement and how to lead one's life "immunologically" in the context of consumption at this bodybuilding gym.

Final considerations

In general terms, it was possible to capture how the processes of medicalization presented themselves in the relationship between physical exercise and immunity in a bodybuilding gym during the COVID-19 pandemic. Although there is currently no public health emergency because of this disease, it is argued that this pandemic period has considerably affected people's health and illness care, as can be seen in the relationship between physical exercise and immunity.

The findings of this study, organized along the discursive axes of physical exercise as a "remedy" and as an "immunological agent," show how the pandemic, with its devastating proportions in the socio-sanitary sphere, has influenced physical activity practices. These practices further emphasized the search for so-called "health" and the strengthening of immunity, premises that were understood to be capable of fighting the virus. In this context, in the bodybuilding gym analyzed, the body, while seen as susceptible to the disease, was also understood as an active resource in coping with COVID-19.

Thus, in all the material produced in this research, the relationship between the body (here forged by physical exercise) and the idea of immunity from COVID-19 was evident, both in the speeches of the interviewees and in the establishment's publications on social networks. In short, these discourses claimed that physical exercises in the gym were important technologies in the management of COVID-19.

It is therefore postulated that this establishment has dichotomously established two notions of immunity that dialog with the relationship between nature and culture: one of a "biophysiological" nature, based on statistical-biomedical parameters, and the other "socio-symbolic", portrayed in networks of sociability, the drugs industry, physical exercise, food, etc. In the face of COVID-19, a multiplicity of so-called therapeutic responses against the virus have been constructed, enhancing the medicalization processes in this academy's space.

We conclude that the discursive imperatives of the immune body have become massified or capillarized in these types of commercial establishments, such as bodybuilding gyms. In this direction, we recommend the initiative of other investigative ventures that focus their analysis on a kind of immunity industry via the consumption of physical exercise and other (medicalizing) self-care devices or networks.

REFERENCES

BOLTANSKI, Luc. **As classes sociais e o corpo**. São Paulo: Paz e Terra, 2004.

BRITO, Leandro Teófilo de. “Enfrentar o vírus como homem e não como moleque”: quando a masculinidade tóxica se torna genocida. **Revista Docência e Cibercultura**, Rio de Janeiro, v. 6, n. 2, p. 150-162, 2022. DOI: 10.12957/redoc.2022.62923. Available at: <https://www.e-publicacoes.uerj.br/index.php/re-doc/article/view/62923>. Accessed in: 25 Jan. 2024.

BUSS, Paulo Marchiori. Uma introdução ao conceito de promoção da saúde. *In*: CZERESNIA, Dina; FREITAS, Carlos Machado de. (org.). **Promoção da Saúde: conceitos, reflexões, tendências**. 2. ed. Rio de Janeiro: Editora da Fiocruz, 2017.

CAMARGO JÚNIOR, Kenneth Rochel. Medicalização, farmacologização e imperialismo sanitário. **Cadernos de Saúde Pública**, Rio de Janeiro, v. 29, n. 5, p. 844-846, 2013. DOI: 10.1590/S0102-311X2013000500002. Available at: <https://www.scielo.br/j/csp/a/k8VGHm5MtMs9T9PYxRDwFLz/?lang=pt>. Accessed in: 25 Jan. 2024.

CAPONI, Sandra. Biopolítica e medicalização dos anormais. **Physis: Revista de Saúde Coletiva**, Rio de Janeiro, v. 19, n. 2, p. 529-549, 2009. DOI: 10.1590/S0103-73312009000200016. Available at: <https://www.scielo.br/j/physis/a/xHyxtGjNn96bkkSJFbBxGCC/abstract/?lang=pt>. Accessed in: 25 Jan. 2024.

CARVALHO, Sérgio *et al.* Medicalização: uma crítica (im)pertinente? **Physis: Revista de Saúde Coletiva**, Rio de Janeiro, v. 25, n. 4, p. 1251-1269, 2015. DOI: 10.1590/S0103-73312015000400011. Available at: <https://www.scielo.br/j/physis/a/mW8FpY6CwpWrPGVLPbCxBQq/>. Accessed in: 25 Jan. 2024.

CASTIEL, Luis David; GUILAM, Maria Cristina Rodrigues; FERREIRA, Marcos Santos. **Correndo o risco: uma introdução aos riscos em saúde**. Rio de Janeiro: Editora Fiocruz, 2010.

CASTRO, Ana Lúcia de. Indústria da beleza: uma abordagem sócio-antropológica do culto ao corpo na cultura contemporânea. **Latitude**, Maceió, v. 4, n. 1, p. 54-73, 2010. DOI: 10.28998/lte.2010.n.1.818. Available at: <https://www.seer.ufal.br/index.php/latitude/article/view/818>. Accessed in: 25 Jan. 2024.

CLARKE, Adele *et al.* Biomedicalization: technoscientific transformation of health, illness and U.S. biomedicine. **American Sociological Review**, New York, v. 68, n. 2 p. 161-194, 2003. DOI: 10.2307/1519765. Available at: <https://www.jstor.org/stable/1519765>. Accessed in: 25 Jan. 2024.

CONRAD, Peter; SCHNEIDER, Joseph. **Deviance and medicalization: from badness to sickness**. Philadelphia: Temple University Press, 1992.

CONRAD, Peter. **The medicalization of society: on the transformation of human conditions into treatable disorders**. Baltimore: The Johns Hopkins University Press, 2007.

CORBIN, Alain; COURTINE, Jean-Jacques; VIGARELLO, Georges (org.). **História do corpo: da Revolução à Grande Guerra**. Petrópolis, RJ: Vozes, 2012.

CZERESNIA, Dina. O conceito de saúde e a diferença entre prevenção e promoção. *In*: CZERESNIA, Dina; FREITAS, Carlos Machado de. (org.). **Promoção da Saúde: conceitos, reflexões, tendências**. 2. ed. Rio de Janeiro: Editora da Fiocruz, 2017.

DIAS, Graziany Penna; COIMBRA, Tatiane Carneiro; RAPOSO, Bruno Martins. ACAD e o sistema CONFEF/CREFS: a burguesia do fitness e a pandemia da COVID-19 no Brasil. **Arquivos em Movimento**, Rio de Janeiro, v. 17, n. 1, p. 454-469, 2021. Available at: <https://revistas.ufrj.br/index.php/am/article/view/39575>. Accessed in:25 Jan. 2024.

FELDMAN, Zeena; GOODMAN, Michael. Cultura alimentar digital, poder e a vida cotidiana. **Cadernos de Campo: Revista de Ciências Sociais**, Araraquara, v. 23, n. esp. 1, e023007, 2023. DOI: 10.47284/cdc.v23iesp.1.18358. Available at: <https://periodicos.fclar.unesp.br/cadernos/article/view/18358>. Accessed in:25 Jan. 2024.

FERREIRA, Jaqueline. Necropolítica, poder e significados da pandemia do coronavírus: uma abordagem antropológica. **Revista Sociedade e Cultura**, Goiânia, v. 24, e66274, 2021. DOI: 10.5216/sec.v24.66274. Available at: <https://revistas.ufg.br/fcs/article/view/66274>. Accessed in:25 Jan. 2024.

FERREIRA, Marcos Santos; CASTIEL, Luis David; CARDOSO, Maria Helena Cabral de Almeida. A patologização do sedentarismo. **Saúde e Sociedade**, São Paulo, v. 21, n. 4, p. 836-847, 2012. DOI: 10.1590/S0104-12902012000400004. Available at: <https://www.scielo.br/j/sausoc/a/6Q55wRpd9mzzwXN9TqQFyXt/abstract/?lang=pt>. Accessed in:25 Jan. 2024.

FLECK, Steven; KRAEMER, William. **Fundamentos do treinamento de força muscular**. 4 ed. Porto Alegre: Artmed, 2017.

FOUCAULT, Michel. **A ordem do discurso**. 5 ed. São Paulo: Edições Loyola, 1999a.

FOUCAULT, Michel. **As palavras e as coisas: uma arqueologia das ciências humanas**. 8 ed. São Paulo: Martins Fontes, 1999b.

FOUCAULT, Michel. **História da sexualidade 2: a vontade de saber**. Rio de Janeiro: Graal, 1984.

FOUCAULT, Michel. Historia de la medicalización. **Educación Médica y Salud**, Washington, v. 11, n. 1, p. 3-25, 1977.

FOUCAULT, Michel. **O nascimento da clínica**. Rio de Janeiro: Forense Universitária, 1986.

FOUCAULT, Michel. **Vigiar e punir: nascimento da prisão**. 29 ed., Petrópolis: Vozes, 2004.

FOUCAULT, Michel. **Nascimento da biopolítica**. São Paulo: Martins Fontes, 2008.

FRAGA, Alex Branco *et al.* Significados de atividade física e saúde em caminhantes: das camadas metodológicas à construção de uma agenda analítica. *In:* FRAGA, Alex Branco; WACHS, Felipe (org.). **Educação Física e saúde coletiva**: políticas de formação e perspectivas de intervenção. Porto Alegre: Editora da UFGRS, 2007.

GAUDENZI, Paula; ORTEGA, Francisco. O estatuto da medicalização e as interpretações de Ivan Illich e Michel Foucault como ferramentas conceituais para o estudo da desmedicalização. **Interface – Comunicação, Saúde e Educação**, Botucatu, v. 16, n. 40, p. 21-34, 2012. DOI: 10.1590/S1414-32832012005000020. Available at: <https://www.scielo.br/j/icse/a/XjXvsdynqRSNX8XdZWGbVRv/?lang=pt>. Accessed in: 25 Jan. 2024.

GILL, Rosalind. Análise de discurso. *In:* BAUER, Martin; GASKELL, George (org.). **Pesquisa qualitativa com texto, imagem e som**: um manual prático. 8 ed. Petrópolis, RJ: Vozes, 2010.

ILLICH, Ivan. **A expropriação da saúde**: nêmesis da Medicina. 3. ed. Rio de Janeiro: Nova Fronteira, 1975.

JOLY, Martine. **Introdução à análise da imagem**. Lisboa: Ed. 70, 1996.

LE BRETON, David. **La sociologie du corps**. Paris: Puf, 2016.

LUPTON, Deborah. Risk as moral danger: the social and political functions of risk discourse in public health. **International Journal of Health Services**, Westport, v. 23, n. 3, p. 425-435, 1993. DOI: 10.2190/16AY-E2GC-DFLD-51X2. Available at: <https://pubmed.ncbi.nlm.nih.gov/8375947/>. Accessed in: 25 Jan. 2024.

MENDONÇA, André Luis Oliveira; CAMARGO JÚNIOR, Kenneth Rochel. Complexo médico-industrial/financeiro: os lados epistemológico e axiológico da balança. **Physis: Revista de Saúde Coletiva**, Rio de Janeiro, v. 22, n. 1, p. 215-238, 2012. DOI: 10.1590/S0103-73312012000100012. Available at: <https://www.scielo.br/j/physis/a/7gJmtgzjNBykpL9hvV3Q6pj/abstract/?lang=pt>. Accessed in: 25 Jan. 2024.

MOULIN, Anne Marie. O corpo diante da medicina. *In:* CORBIN, Alain; COURTINE, Jean-Jacques; VIGARELLO, Georges (org.). **História do corpo**. As mutações do olhar: o século XX. Petrópolis, RJ: Vozes, 2008.

MOYSÉS, Maria Aparecida Affonso; COLLARES, Cecilia Azevedo Lima. Diferenças, desigualdades e direitos: raízes da medicalização/patologização da vida e na escola. *In:* CECCIM, Ricardo Burg; FREITAS, Cláudia Rodrigues de (org.). **Fármacos, remédios, medicamentos**: o que a Educação tem com isso? Porto Alegre: Rede Unida, 2021.

NEGRÃO, Carlos Eduardo; BARRETTO, Antônio Carlos Pereira; RONDON, Maria Urbana Pinto Brandão. **Cardiologia do exercício**: do atleta ao cardiopata. 4. ed. Barueri, SP: Manole, 2019.

NOGUEIRA, Quéfren Weld Cardozo. **Além das próprias forças**: origens e caminhos das ciências do esporte no Brasil entre as décadas de 1930 e 1980. Curitiba: CRV, 2023.

ORTEGA, Francisco. Biopolíticas da saúde: reflexões a partir de Michel Foucault, Agnes Heller e Hannah Arendt. **Interface – Comunicação, Saúde e Educação**, Botucatu, v. 8, n. 14, p. 9-20, 2004. DOI: 10.1590/S1414-32832004000100002. Available at: <https://www.scielo.br/j/icse/a/KRqrqqJGqK6vshf4KKrkCbw/>. Accessed in:25 Jan. 2024.

PITANGA, Francisco José Gondim; BECK, Carmem Cristina; PITANGA, Cristiano Penas Seara. Inatividade física, obesidade e COVID-19: perspectivas entre múltiplas pandemias. **Revista Brasileira de Atividade Física & Saúde**, Pelotas, v. 25, e0114, 2020. DOI: 10.12820/rbafs.25e0114. Available at: <https://rbafs.org.br/RBAFS/article/view/14262>. Accessed in:25 Jan. 2024.

PITANGA, Francisco José Gondim *et al.* Atividade física e mortalidade por COVID-19 nas capitais brasileiras: uma análise ecológica. **Revista Brasileira de Medicina do Esporte**, São Paulo, v. 27, n. 6, p. 573-577, 2021. DOI: 10.1590/1517-8692202127062021_0071. Available at: <https://www.scielo.br/j/rbme/a/mZVjDXRbN8J5wwVB7GbgWz/abstract/?lang=pt>. Accessed in:25 Jan. 2024.

ROCHA, Vera Maria da; CENTURIÃO, Carla Haas. Profissionais da saúde: formação, competência e responsabilidade social. In: FRAGA, Alex Branco; WACHS, Felipe (org.). **Educação Física e saúde coletiva: políticas de formação e perspectivas de intervenção**. Porto Alegre: Editora da UFRGS, 2007.

ROHDEN, Fabíola. Vida saudável versus vida aprimorada: tecnologias biomédicas, processos de subjetivação e aprimoramento. **Horizontes Antropológicos**, Porto Alegre, v. 23, n. 47, p. 29-60, 2017. DOI: 10.1590/S0104-71832017000100002. Available at: <https://www.scielo.br/j/ha/a/NHHX5NcL4yFYXNX88msZyXh/abstract/?lang=pt>. Accessed in:25 Jan. 2024.

SABINO, César. **O peso da forma: cotidiano e uso de drogas entre fisiculturistas**. 2004, 366 f. Tese (doutorado em Sociologia e Antropologia) – Universidade Federal do Rio de Janeiro, Rio de Janeiro.

SILVA, Alan Camargo. Apresentação. In: SILVA, Alan Camargo (org.). **Corpo e práticas corporais em academias de ginástica**. Curitiba: Bagai, 2022.

SILVA, Alan Camargo. **Corpos no limite: suplementos alimentares e anabolizantes em academias de ginástica**. Jundiaí: Paco Editorial, 2017.

SILVA, Alan Camargo; FERREIRA, Jaqueline. Entre remediar e prevenir: uma etnografia sobre o manejo da dor e dos “limites” corporais em academias de ginástica do Rio de Janeiro. **Pensar a Prática**, Goiânia, v. 21, n. 1, p. 107-118, 2018. DOI: 10.5216/rpp.v21i1.39631. Available at: <https://revistas.ufg.br/fef/article/view/39631>. Accessed in:24 Apr. 2024.

SILVA, Alan Camargo; FERREIRA, Jaqueline. Corpo “educado”: atuação pedagógica de professores de Educação Física em academias de ginástica. **Motrivivência**, Florianópolis, v. 32, n. 63, p. 1-16, 2020. DOI: 10.5007/2175-8042.2020e76554. Available at: <https://periodicos.ufsc.br/index.php/motrivivencia/article/view/76554>. Accessed in:07 Apr. 2024.

SILVA, Alan Camargo; FERREIRA, Jaqueline. Evolução das academias de ginástica no Brasil e sua relação com a saúde. **Lecturas: Educación Física y Deportes**, Buenos Aires, v. 24, n. 262, 2020. DOI: 10.46642/efd.v24i262.1897. Available at: <https://www.efdeportes.com/efdeportes/index.php/EFDeportes/article/view/1897>. Accessed in:24 Apr. 2024.

SILVA, Alan Camargo; FERREIRA, Jaqueline. No pain, no gain? Sentidos e significados atribuídos às dores e aos riscos entre malhar e treinar em academias de ginástica. **Revista Brasileira de Educação Física e Esporte**, São Paulo, v. 35, n. 1, p. 1-13, 2021. DOI: 10.11606/issn.1981-4690.v35i1p1-13. Available at: <https://www.revistas.usp.br/rbefe/article/view/184416>. Accessed in:07 Apr. 2024.

SCHWANDT, Thomas. Três posturas epistemológicas para a investigação qualitativa: interpretativismo, hermenêutica e construcionismo social. *In*: DENZIN, Norman; LINCOLN, Yvonna (org.). **O planejamento da pesquisa qualitativa: teorias e abordagens**. 2. ed. Porto Alegre: Artmed, 2006.

TURATO, Egberto Ribeiro. **Tratado da metodologia da pesquisa clínico-qualitativa: construção teórico-epistemológica, discussão comparada e aplicação nas áreas da saúde e humanas**. 6 ed. Petrópolis, RJ: Vozes, 2013.

WILLIAMS, Simon; MARTIN, Paul; GABE, Jonathan. The pharmaceuticalisation of society? A framework for analysis. **Sociology of Health and Illness**, London, v. 33, n. 5, p. 710-725, 2011. DOI: 10.1111/j.1467-9566.2011.01320.x. Available at: <https://pubmed.ncbi.nlm.nih.gov/21371048/>. Accessed in:25 Jan. 2024.

ZOLA, Irving. Medicine as an institution of social control. **The Sociological Review**, London, v. 4, p.487-504, 1972. Available at: <https://www.jstor.org/stable/43618673>. Accessed in:25 Jan. 2024.

ZORZANELLI; Rafaela Teixeira; ORTEGA, Francisco; BEZERRA JÚNIOR, Benilton. Um panorama sobre as variações em torno do conceito de medicalização entre 1950-2010. **Ciência & Saúde Coletiva**, Rio de Janeiro, v. 19, n. 6, p. 1859-1868, 2014. DOI: 10.1590/1413-81232014196.03612013. Available at: <https://www.scielo.br/j/csc/a/nqv3K7JRXxmrBvq5DcQ88Qz/abstract/?lang=pt>. Accessed in:25 Jan. 2024.

CRediT Author Statement

- Acknowledgements:** Not applicable.
 - Funding:** Not applicable.
 - Conflicts of interest:** There were no conflicts of interest of any kind.
 - Ethical approval:** This study was guided by the ethical procedures of Resolution 466/12 and 510/16 of the National Health Council. This work is part of the first author's master's thesis and has not been submitted to the Ethics Committee.
 - Availability of data and material:** The data and materials used in the work are stored for research purposes only.
 - Author contributions:** The first author was responsible for devising the research, fieldwork, and systematizing/organizing the manuscript. The second author contributed to the writing of this text, especially with the theoretical-methodological articulation in dialog with the empirical material. The third author was the supervisor and advisor of this work, and was responsible for all stages of the research.
-