Journal of Education, Environment and Health| ISSN 1983-0173

# Estratégias de enfrentamento à covid-19 na população do Amazonas

Strategies to combat Covid-19 in the population of Amazonas

Estrategias para combatir el Covid-19 en la población de Amazonas

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**RESUMO**

**Objetivo:** descrever as estratégias utilizadas no enfrentamento da pandemia por COVID-19. **Método:** estudo transversal, analítico, quantitativo, realizado em três unidades básicas de saúde (UBS) do município de Parintins, Amazonas, no período de julho de 2020 a julho de 2022. Critérios de inclusão: ser usuário da rede de atenção básica de saúde e estar cadastrado na UBS. **Resultados:** entre as medidas de prevenção utilizadas durante a pandemia por COVID-19, 35,9% dos participantes citaram o uso de máscaras, 31,3% o uso do álcool em gel, 7,8% a higienização das mãos, 1,6% a utilização de chás caseiros, e 6,3% não responderam. **Conclusão:** os usuários dos serviços de saúde demonstraram o elo entre os conhecimentos tradicionais em saúde e as práticas complementares, e demonstrando interesse nas fontes confiáveis de informações veiculadas pelos profissionais da saúde.

**Descritores:** Covid-19; Terapias complementares; Controle de doenças Transmissíveis.

**ABSTRACT**

**Objective:** to describe the strategies used to combat the COVID-19 pandemic. **Method:** cross-sectional, analytical, quantitative study, carried out in three basic health units (UBS) in the city of Parintins, Amazonas, from July 2020 to July 2022. Inclusion criteria: being a user of the basic health care network and be registered with UBS. **Results:** among the prevention measures used during the COVID-19 pandemic, 35.9% of participants cited the use of masks, 31.3% the use of alcohol gel, 7.8% hand hygiene, 1, 6% used homemade teas, and 6.3% did not respond. **Conclusion:** users of health services demonstrated the link between traditional health knowledge and complementary practices and demonstrated interest in reliable sources of information conveyed by health professionals.

**Descriptors:** Covid-19; Complementary therapies; Communicable disease control.

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**RESUMEN**

**Objetivo:** describir las estrategias utilizadas para combatir la pandemia de COVID-19. **Método:** estudio transversal, analítico, cuantitativo, realizado en tres unidades básicas de salud (UBS) de la ciudad de Parintins, Amazonas, de julio de 2020 a julio de 2022. Criterios de inclusión: ser usuario de la red de atención básica de salud y ser registrado en la USB. **Resultados:** entre las medidas de prevención utilizadas durante la pandemia de COVID-19, el 35,9% de los participantes citó el uso de mascarillas, el 31,3% el uso de alcohol gel, el 7,8% higiene de manos, el 1,6% utilizó tés caseros y el 6,3% no responder. **Conclusión:** los usuarios de los servicios de salud demostraron el vínculo entre conocimientos tradicionales en salud y prácticas complementarias, y demostraron interés en fuentes confiables de información transmitidas por profesionales de la salud.

**DESCRIPTORES:** Covid-19, Terapias complementarias; Control de enfermedades transmisibles.

**INTRODUCTION**

In December 2019, in Wuhan, China, a new strain of the coronavirus emerged, capable of producing Severe Acute Respiratory Syndrome (SARS). This virus, called SARSCoV-2, develops the disease COVID-19. The way it binds to the host is through the peptidase domain of the angiotensin-converting enzyme 2, which facilitates its replication in humans. In addition, it is capsulated, meaning that it has a protective barrier made up of proteins and fats against the human body's defense cells. When it settles in the body, it mainly affects the respiratory system, causing flu-like symptoms.[1-2]

In March 2020, the World Health Organization (WHO) declared COVID-19 a pandemic and announced strategic measures to deal with it globally, with three main ones standing out: social isolation, mass testing and hygiene and cleaning measures3. Even with these measures, the virus spread around the world partly because of the delay in testing suspected cases, giving the results and isolating them, and because of the failure to protect health professionals, which also led to the spread from health services.[4-5]

In Brazil, the first confirmed case of COVID-19 occurred on February 26, 2020 in São Paulo, in a patient who had returned from a trip abroad days before the diagnosis. Socioeconomic inequalities in Brazil contribute to the transmission of the virus, especially among the most vulnerable populations.[4]

In the state of Amazonas, the rates of basic sanitation and treated water in the region are 10.49% and 57.05% respectively. These figures influence the main measure of individual prevention against the virus, hand washing.[6] In addition, the interior of Amazonas has limitations in specialized human resources in the area of health and highly complex hospital structures, as well as long distances, which require transport logistics to move critical patients to the capital Manaus.[7]

In the state, strategies to combat Covid-19 were published through Decree No. 42,087, which suspended all non-essential services and declared social isolation/distancing as the main measure to be used, in addition to reducing river travel. Radio stations were used to reinforce forms of prevention, such as hand washing, the use of hand sanitizer, the mandatory use of masks and the distribution of school meals for children during the stoppage of classes.[8-9]

Parintins is a city located in the interior of Amazonas and has a population of 96,3729. In addition to the study measures adopted, the city council used a curfew and even with these measures, the city confirmed, as of September 30, 2023, 360 deaths from COVID-19.[10-11]

Complementary health practices are ancient in the Amazonian population, and are based mainly on the use of teas, prayers and bottles. During the COVID-19 pandemic, these practices were incorporated into the fight against the disease.[12-13] In view of the above, the aim of this study was to identify the strategies used to combat COVID-19 and how complementary health practices were used by the population of Parintins to combat the disease.

**METHODS**

This was a cross-sectional, analytical, quantitative study carried out in three Basic Health Units (BHUs) in the municipality of Parintins, Amazonas, and data was collected in May 2022. The population was made up of health users registered at the BHUs. The inclusion criteria were: being a user of the primary health care network and being registered at the BHUs.

The indigenous population was excluded from the study. The questionnaire used was drawn up by the researchers themselves and included questions about the strategies used to deal with Covid-19 and socio-economic questions.

The study was carried out in accordance with the guidelines for conducting research involving human beings, contained in Resolution 466/2012 of the Conselho Nacional de Saúde (CNS). Participants signed the Free and Informed Consent Form (FICF) in two copies, one of which was kept by the researchers and the other by the participant. The data collected was entered into an Excel spreadsheet and described by absolute and relative frequencies, mean and standard deviation.

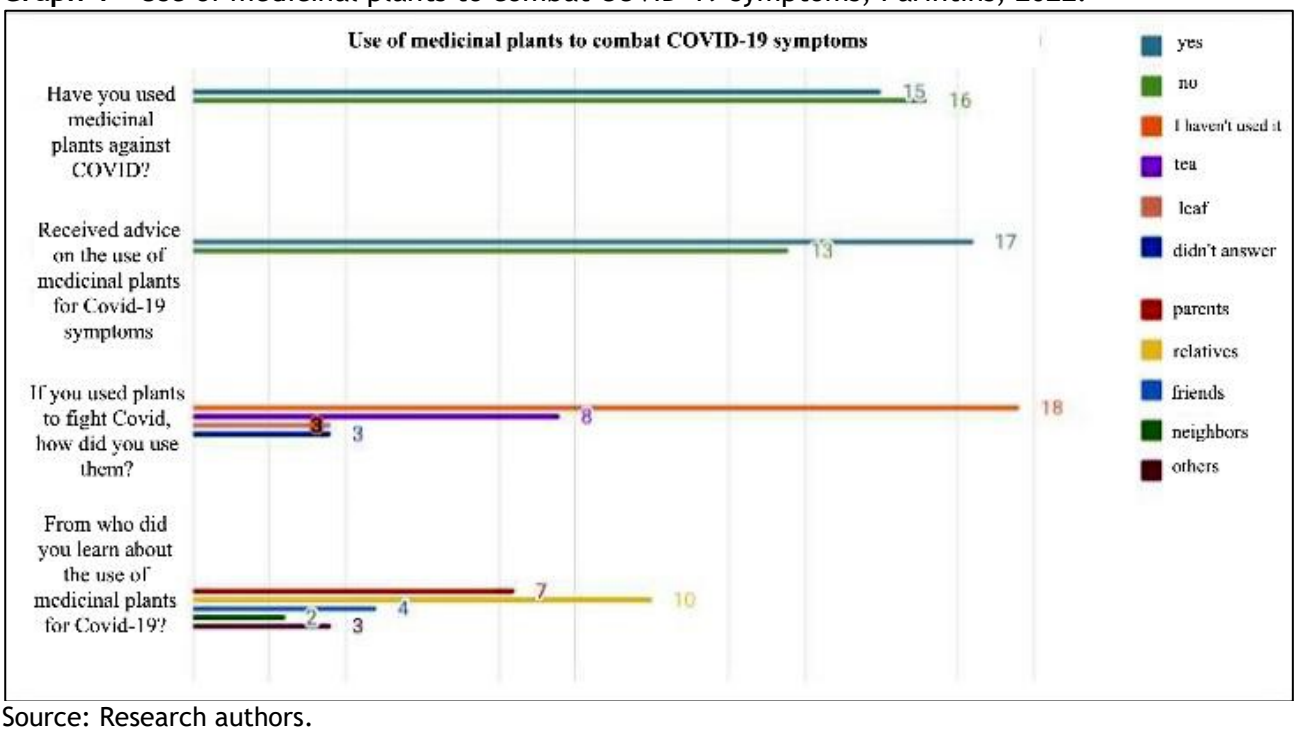
**RESULTS**

The final sample consisted of 32 participants. Regarding the socioeconomic profile of the participants, 78.2% were single, 28.2% were between 20 and 30 years old, 68.7% had a high school education, 46.9% earned less than 1 minimum wage, 28.2% had no children, 31.2% said they had some kind of chronic illness and 18.7% were students.

Among the preventive measures used during the COVID-19 pandemic, 35.9% of participants cited the use of masks, 31.3% the use of alcohol gel, 7.8% hand hygiene, 1.6% the use of homemade teas, and 6.3% did not answer. During the pandemic, 65.7% of participants reported using masks when leaving the house, and when asked if they practiced physical distancing, 49.8% answered "sometimes". 56% said they had already shown signs or symptoms suggestive of Covid-19, 40.6% reported not having done a rapid test or PCR, and only 18.8% did the test and it was positive. With regard to vaccination, 65.6% had already been vaccinated with 3 doses or more of the Covid-19 vaccine, and 93.7% trusted the efficacy of all vaccines, while 6.3% trusted only some.

Graph 1 analyzes the use of medicinal plants to combat signs and symptoms of COVID-19 during the pandemic. 50% of participants reported that they had not used medicinal plants against COVID-19, while around 53% had been advised to use medicinal plants to relieve COVID-19 symptoms. Of the participants who had used plants, 25% reported using them in the form of tea and 9.4% used the leaves themselves. 31.3% reported having heard about the use of medicinal plants in the pandemic from relatives.

**Graph 1 -** Use of medicinal plants to combat COVID-19 symptoms, Parintins, 2022.




Source: Research authors.

Regarding the municipal actions implemented by the government against COVID, 25% rated them as "regular", 15.6% as "good", 9.4% as "excellent", and 3.1% as "bad". 18.8% reported not knowing the actions and strategies implemented by the municipal government.

**DISCUSSION**

Primary Health Care (PHC) plays a strategic role in the health policy of the Unified Health System (SUS), functioning as the gateway to the system and with the family as the focus of care.[14] However, the family in the city of Manaus is not the focus of PHC, as it is nationwide.[15] During the COVID-19 pandemic, PHC in the municipalities of the interior of Amazonas incorporated COVID-19 prevention measures into their activities, with health professionals being instructed on how to manage the disease.

The use of masks, social isolation and the closure of businesses were some of the measures adopted after the first confirmed case of the virus. In addition, suspected cases were tested, and more health professionals such as doctors, nurses, psychologists, nursing technicians and physiotherapists were hired to reinforce care.[16]

The construction of a flowchart for the care of COVID-19 cases in primary health care, social distancing measures and the vaccination campaign are important in dealing with the pandemic.[17] The organization of social networks makes it possible to raise awareness and spread hygiene and isolation habits, promoting the prevention of the disease. In addition, the organization of campaigns to collect goods and resources has been necessary during the pandemic.[18]

Some Integrative and Complementary Health Practices (ICHPs) are alternatives to traditional medicine and are widespread among the Amazonian population thanks to their low cost and easy access in the region.[19-20] By being able to opt for complementary treatments, the user feels like a protagonist in their own care.[21] Tea, syrup and baths extracted from medicinal plants are important for survival, promote benefits and help to relieve or cure certain illnesses.[22]

**CONCLUSION**

The pandemic has brought a new scenario to the reality of the research community, awakening coping strategies interconnected by health networks and facilitated by Primary

Health Care. Health service users have demonstrated the link between traditional health knowledge and complementary practices.

In an atypical health care context, the autonomy and communication adhered to by the official information made available made it possible for the population to adhere to the vaccine and to seek preventive measures, such as distancing, wearing a mask and treatment.

Primary health care provides access to health in the interior communities of Amazonas and must provide permanent training for its professionals so that users have access to the comprehensive care that is essential for re-establishing their health.

Finally, this study aimed to contribute to future research with remote communities and SUS users in order to build health care networks focused on comprehensive care for each person and family, respecting their sociodemographic and cultural context. In addition, the research also aims to broaden the search for the study of complementary health practices in the Amazon region in order to investigate the effect of medicinal plants, teas and baths on the human body.

**ACKNOWLEDGMENTS**

Conselho Nacional de Desenvolvimento Científico e Tecnológico – CNPq

**REFERENCES**

1. Chen J. Pathogenicity and transmissibility of 2019-nCoV - A quick overview and comparison with other emerging viruses. Microbesand Infection. [Internet]. 2020 [citado em 30 de setembro de 2023] v. 22, 2, 69-7.

2. WHO [Internet]. Novel Coronavirus (2019-nCoV). 2020 [citado em 30 de setembro de 2023]. Disponível em: https://www.who.int/emer-gencies/diseases/novel-coronavirus-2019/situation-reports.

3. Organização Pan-Americana da Saúde (OPAS) [Internet]. OMS afirma que COVID-19 é agora caracterizada como pandemia. 2020 [citado em 30 de setembro de 2023]. Disponível em: https://www.paho.org/bra/index.php?option=com_content&view=article&id=6120:oms-afirma-que-covid-19- e-agora-caracterizada-como-pandemia&Itemid=812.

4. Ministério da Saúde [Internet]. Coronavírus Brasil - Painel Geral COVID-19. 2020 [citado em 30 de setembro de 2023]. Disponível em: https://covid.saude.gov.br.

5. Silva AAM. On the possibility of interrupting the coronavirus (COVID-19) epidemic based on the best available scientific evidence. Rev Bras Epidemiol. [Internet]. 2020 [citado em 30 de setembro de 2023]; 23: E200021.

6. Trata Brasil [Internet]. Saneamento. 2021 [citado em 30 de setembro de 2023]. Disponível em: http://www.tratabrasil.org.br/saneamento/principais-estatisticas/no-brasil/agua.

7. Viana ALD, Machado CV, Baptista TWF, Lima LD, Mendonça MHM, et al. Proteção Social em Saúde no Brasil: desafios de uma política para a Amazônia legal. In: Viana ALA, Ibañez N, Elias PEM, organizadores. Saúde, Desenvolvimento e Território São Paulo: Hucitec; 2009 [citado em 30 de setembro de 2023]. p. 193-267.

8. Fundação De Vigilância Sanitária [Internet]. Amazonas. 2020 [citado em 30 de setembro de 2023]. Disponível em: http://www.fvs.am.gov.br/media/publicacao/28_06_2020_BOLETIM_DIÁRIO_DE_CASOS_DE_COVID-19.pdf.

9. IBGE [Internet]. Relação da População dos Municípios para publicação no DOU em 2023. 2023 [citado em 30 de setembro de 2023]. Disponível em: <https://ftp.ibge.gov.br/Informacoes_Gerais_e_Referencia/Relacao_da_Populacao_dos_Municipios_para_publicacao_no_DOU_em_2023/POP_DOU_2023_Municipios_POP2022_Malha2023.pdf>

10. Prefeitura de Parintins [Internet]. Processo N 091/2020/AJ/SEMED. 2020 [citado em 30 de setembro de 2023]. Disponível em: https://files.parintins.am.gov.br/documents/103096.pdf.

11. Brasil – Ministério da Saúde. Coronavírus Brasil [Internet]. 2023 [citado em 30 de setembro de 2023]. Acesso em: https://covid.saude.gov.br/.

12. Barros NF, et al. Trabalho interprofissional e as Práticas Integrativas e Complementares no contexto da Atenção Primária à Saúde: potenciais e desafios. Saúde debate. [Internet]. 2018 [citado em 30 de setembro de 2023];42(1):163-173.

13. Conselho Nacional De Saúde [Internet]. Recomendações sobre o uso das práticas integrativas e complementares durante a pandemia da Covid-19. Recomendação Nº 041, De 21 De Maio De 2020. 2020 [citado em 30 de setembro de 2023]. Disponível: https://conselho.saude.gov.br/recomendacoes-cns/1192-recomendacao-n-041-de-21-de-maio-de-2020.

14. Silva NC, Feitosa IO, Santos IS, Macedo VP. Análise das práticas dos enfermeiros no âmbito da Atenção Primária à Saúde no contexto amazônico. Enferm Foco [Internet]. 2023 [citado em 01 de outubro de 2023];14:e-202330. Disponível em: https://enfermfoco.org/wp-content/uploads/articles_xml/2357-707X-enfoco-14-e-202330/2357-707X-enfoco-14-e-202330.pdf.

15. Silva NC, Giovanella L, Mainbourg EMT. A família nas práticas das equipes de Saúde da Família. Rev Bras Enferm [Internet]. 2014 [citado em 01 de outubro de 2023]. v 67(2): 274-81. Disponível em: https://www.scielo.br/j/reben/a/33GGTCbnwJbssfrKYXwvXdb/abstract/?lang=pt

16. Costa YB da, Azevedo JAC de, Melo GZ dos S, Mattos TCB de, Costa SE da S, et al. Dinâmica para contenção da transmissão da COVID-19 em um município do interior do Amazonas. Rev Bras Med Fam Comunidade [Internet]. 2022 [citado em 1 de outubro de 2023];17(44):3160. Disponível em: https://rbmfc.org.br/rbmfc/article/view/3160.

17. Nóbrega e Diniz, et al. Relato de experiência da residência em medicina de família e comunidade frente à pandemia covid-19. Saúde Coletiva [Internet]. 2021 [citado em 01 de outubro de 2023] v. 11, n. 71, p. 9268-9277.

18. Mendonça MHM, et al. A pandemia COVID-19 no Brasil: ecos e reflexos nas comunidades periféricas. APS em Revista [Internet]. 2020 [citado em 01 de outubro de 2023], v. 2, n. 2, p. 162-168.

19. Evangelista SS, Sampaio FC, Parente RC, Bandeira MFCL. Fitoterápicos na odontologia: estudo etnobotânico na cidade de Manaus. Rev Bras Plantas Med [Internet]. 2013 [citado em 01 de outubro de 2023];15(4):513-9. Disponível em: http://www.scielo.br/pdf/rbpm/v15n4/a07v15n4.pdf.

20. Verdam MCS, Ohana DT, Araújo MGP, Guilhon SF, Mendonça MS, Pereira MM. Morphology and anatomy of Justicia acuminatissima leaves. Rev Bras Farmacogn [Internet]. 2012 [citado em 01 de outubro de 2023];22(6):1212-8. Disponível em: http://www.scielo.br/pdf/rbfar/v22n6/aop12212.pdf.

21. Aguiar J; Kanan LA, Masiero AV. Práticas Integrativas e Complementares na atenção básica em saúde: um estudo bibliométrico da produção brasileira. Saúde em Debate [Internet]. 2020 [citado em 01 de outubro de 2023], v. 43, p. 1205-1218.

22. Andrade RM, et al. Sabedoria popular: o uso de remédios caseiros no tratamento dos sintomas da Covid-19 na Comunidade Indígena Tikuna Bom Jesus II, no município de São Paulo de Olivença, Amazonas/Brasil. 2022 [citado em 01 de outubro de 2023].