

Dilemmas about the use of face masks in post-pandemic times: a preventive measure and control of infectious and contagious respiratory diseases

Mônia Cláudia Sartoratto¹  Larissa Paloma Reis de Queiroz¹  Giovanna de Souza Almeida¹  Thaís Borges Nascimento¹ 
Caroline Santana dos Santos¹  Beatriz Aparecida Ozello Gutierrez¹  Rosa Yuka Sato Chubaci¹ 

¹ Universidade de São Paulo – USP. São Paulo/SP, Brasil.
E-mail: rchubaci@usp.br

Abstract

The objective of this study was to understand the reasons for the participant's adherence or not to the use of mask in case of catching a “flu”; to analyze the actions taken by the participants to avoid transmission when they had flu symptoms before the pandemic; identify the opinion of the participants on the use of masks before the pandemic; to verify the general feeling towards the use of a face mask in the pandemic, and to verify the acceptance of the population regarding the use of a face mask in case of symptoms of infectious and contagious respiratory diseases in post-pandemic times. This consists of a descriptive, exploratory study, with a qualitative approach, carried out with 62 participants who use public transportation. Semi-structured interviews were used in October 2020. The data collected were subjected to analysis according to social phenomenology and categorized according to a phenomenological approach. The motivations for wearing the mask in public places in case of flu in post-pandemic times show the concern with prevention and protection for themselves and others. Non-adherence refers to difficulty in socializing and discomfort. Thus, it is understood that self-care was present among several answers and that almost all the participants, in case of a “flu”, will wear a mask after the pandemic. It is concluded that instructing the population regarding the use of a face mask in public places in post-COVID-19 times in order to reduce the spread and contamination by infectious and contagious respiratory diseases is of paramount importance.

Keywords: Face masks. Respiratory diseases. Population. Primary prevention.

INTRODUCTION

Thousands of people worldwide die annually from respiratory diseases, the elderly population being the most affected. Since the beginning of 2020, the world population is alarmed by the COVID-19 Pandemic, responsible for infecting thousands of people around the world and causing millions of deaths. The World Health Organization (WHO) recommended the use of face masks by the general population to prevent the spread of COVID-19, in addition

to hygiene habits such as washing hands, covering the mouth and nose when sneezing, and social distancing.

Therefore, the importance of using a mask as a preventive measure was perceived. For this study, it became significant to understand the habit of wearing masks throughout world history.

At the beginning of the 20th century, masks were introduced in hospitals to be used by sur-

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geons and professionals who were taking care of people with contagious diseases. In 1918, with the Spanish flu pandemic, which decimated thousands of people in the world, the habit of wearing masks was also disseminated to part of the world population¹.

The United States and the United Kingdom had several cities in which legislation was issued making the use of masks mandatory by the population, known as the “Mask Order”, resulting in the decline of the pandemic¹. Many Americans did not react positively to the mandatory use of a mask; however, in Japan, the population understood that the use of a mask represented a certain control over the devastating pandemic¹. Thus, the use of masks became a habit for Japanese people that lasts until the present time.

The outbreaks and fears of severe acute respiratory syndrome (SARS) in 2003 and avian influenza in 2004, considered infectious diseases, led the World Health Organization to recommend all countries to be committed to “the development or updating of national flu prevention plans”².

Infectious diseases can be understood as those of immediate and rapid transmission, caused by any organism that can generate a disease; in some cases, the disease originates from an intermediate agent, transmitter or vector (bacteria, viruses, parasites, and fungi), and respiratory diseases are pathological changes in the body that affect the structures of the respiratory system (nasal cavities, pharynx, larynx, trachea, bronchi, bronchioles, and terminal bronchioles), such as influenza, tuberculosis, bronchitis, influenza, sinusitis, and asthma³.

In addition, as a result of the COVID-19 pandemic, self-care, such as the habit of wearing face masks in public, has become necessary as a preventive measure, given that this measure contains the proliferation of the virus from symptomatic households, caregivers, and peo-

ple who live in long-term care institutions, to those who circulate in crowded spaces, such as public transport⁴.

These hygiene habits are effective in preventing other infectious and contagious respiratory diseases; however, it is evident that most of them were introduced into the routine of the Brazilian population after the COVID-19 pandemic, becoming habits that were not considered common in the country before⁵.

This study was justified due to the current COVID-19 pandemic and the high rate of outbreaks and deaths that affect the world population annually. In Brazil the elderly are the main victims of infectious and contagious respiratory diseases⁶. There is also a lack of national studies and research that address the use of face masks in public places in the prevention of these infectious-contagious respiratory diseases.

Thus, promoting public awareness about the prevention of infectious and contagious respiratory diseases by using preventive measures, such as face masks and hygiene habits, becomes essential for health promotion⁷.

In this context, based on the premise that encouraging the use of face masks by the population will promote a measure of individual protection and decrease of the spread of infectious and contagious respiratory diseases, this study aimed to understand the reasons for the participant's adherence or not to the use of mask in case of catching a “flu”; to analyze the actions taken by the participants to avoid transmission when they had flu symptoms before the pandemic; identify the opinion of the participants on the use of masks before the pandemic; to verify the general feeling towards the use of a face mask in the pandemic; and to verify the acceptance of the population regarding the use of a face mask in case of symptoms of infectious and contagious respiratory diseases in the post-pandemic scenario.

METHOD

The research was of a qualitative nature, carried out during the month of October 2020. The convenience sample had 62 participants, around the Tatuapé Metro in the city of São Paulo.

The sample inclusion criteria were: being over 18 years old, both sexes, without cognitive impairment, and able to answer the questions. The exclusion criteria were: not having time available to participate in the study and not using a face mask. The risk of the research was minimal and if the participant felt uncomfortable, he could immediately withdraw from the interview without any consequences. All participants signed an Informed Consent Form.

The data collection instrument consisted of semi-structured questions, which included sociodemographic data and questions related to the use of face masks. The interview was conducted in person on the pedestrian bridge that connects the two Tatuapé train and subway stations, lasting approximately 15 minutes.

The methodological framework used was Alfred Schütz's Social Phenomenology, which is based on the "understanding of the action of subjects in the social world, having as reference the intersubjective relationships inscribed in their daily experiences"⁸.

Schütz and Luckmann⁹ highlighted the social relationship as an essential element in the interpretation of the meanings of the subjects' actions in the everyday world; this everyday

world being constituted by a structure that enables the social construction of subjects, influencing their relationships.

Caring requires the establishment of a face-to-face relationship, which Schütz defined as one in which the subjects involved are aware of each other and mutually engaged at the same time and space⁹.

From the knowledge and in the light of Alfred Schütz's social phenomenology⁸, part of the cultural and sociological aspects that influenced the adherence or not of the participants to the use of face masks were better understood, in which care, social responsibility, and the health promotion both individually and collectively are encompassed.

For data analysis, all interviews were transcribed, and detailed readings were also performed¹⁰. Thus, it was possible to identify excerpts from the interviews that most responded to our objectives and categorization according to what the participants' answers meant.

After the interview, the participants received a free disposable face mask with guidance on the importance of its use.

The research project was approved by the Ethics Committee under the opinion letter of CAEE 30271220.6.0000.5390 and all ethical precepts were respected according to Resolution 510/2016 related to Ethics in Research with Human Beings of the National Health Council - Ministry of Health.

RESULTS

A total of 62 people participated in the study, of which 31 were women and 31 were men, aged between 18 and 79 years old, with a mean age of 48.5 years. Most lived in the eas-

tern part of the city of São Paulo, were single and had more than eight years of schooling.

It should be noted that 100% of the participants wore a mask at the time of the interview.

Table 1 – Distribution of sex, age, region where they live in São Paulo (SP), marital status and education presented by the research participants (n = 62). São Paulo (SP), 2021.

Variables	n	%
Sex		
Male	31	50
Female	31	50
Age		
18-29	11	17.7
30-39	7	11.3
40-49	10	16.2
50-59	8	12.9
60-69	17	27.4
70-79	9	14.5
Region of residence		
North	6	9.7
South	4	4
East	43	69.4
West	5	8.1
Downtown	1	1.6
Outside São Paulo	3	4.8
Marital status		
Single	27	43.6
Married	15	24.2
Widow/ widower	9	14.5
Divorced	9	14.5
Separated	2	3.2
Schooling		
Incomplete elementary school incomplete	5	8.1
Complete elementary school	12	19.4
Incomplete high school	16	25.8
Complete high school	13	21
Incomplete university education	6	9.7
Complete university education	7	11.3
Graduate school	3	4.8

The lived type, according to Schutz⁸, is a characteristic of a social group, whose lived nature is essential, and the lived type is reached by the analysis of social relations. Therefore, it reached the commons of this social group, representing the opinion of a large part of the participants. The categories presented in the tables represent the lived type according to the categorization of the meanings of the interviews.

When the participants were asked about what they did to avoid transmission when they had flu symptoms, before the COVID-19 pandemic, it is observed in Box 1 that, in addition to contagion precautions, the use of medicines and the practice of personal care were reported.

Box 2 shows the participants' opinions regarding the use of face masks before the COVID-19 pandemic. These opinions ranged from the degree of normality to the extreme, characterizing the strangeness.

According to Box 3, the main answers obtained when respondents were asked how they felt using the mask in the pandemic were the feeling of protection and discomfort.

As shown in Box 4, when asked about their motivations for using and not using a mask in a public place in case of flu, respondents mentioned their concern with prevention and protection. Among the negative points, the interviewees reported the difficulty in social interaction among mask users, as their use makes recognition impractical.

The incorporation or not of the habit of wearing masks after the pandemic and its justifications are shown in Box 5.

It is noteworthy that almost all the participants expressed adherence to the use of the face mask even after the COVID-19 pandemic. For several factors, the most cited among them was the prevention of the disease.

However, eleven participants stated that they will not use the disposable and/or reusable face mask in public places after the COVID-19 pandemic in the presence of flu symptoms. They claimed that it would not change much, mainly due to the feeling of discomfort generated by its use.

Box 1 – Actions taken to prevent transmission when they had flu symptoms. São Paulo, SP - October 2020.

Actions before COVID-19 pandemic
Avoid crowds/social distancing
Stay at home
Use of medications and vitamins
Be careful when coughing and sneezing
Use of medicinal teas
Do not share items
Avoid cold weather and wear warm clothing
Hand washing

Box 3 – Feelings regarding the use of face masks. São Paulo, SP - October 2020.

Feelings during the COVID-19 pandemic
Feels good and protected
Feels normal and adapted
Feels obligated to use it
Feels bad and uncomfortable
Feels short of breath

Box 2 – Opinions about people who wore face masks. São Paulo, SP - October 2020.

Opinions before the COVID-19 pandemic
Carrier of chronic diseases
Found it strange and unusual
Important for self-protection
Fear of contaminating yourself
Normal

Box 4 – Motivations regarding the use of a mask in a public place in case of flu/infectious-contagious respiratory disease. São Paulo, SP - October 2020.

Reasons to wear a mask	Reasons not to wear a mask
Prevention	Difficulty recognizing each Other
Avoid transmission	It interferes with social life
Safety and security	Feeling of suffocation
Self-care	Feels uncomfortable

Box 5 – Would you continue to wear a face mask in a public place after the COVID-19 pandemic if you had flu symptoms? São Paulo, SP - October 2020.

YES, I would wear the mask	NO, I would not wear a face mask
Avoid transmission	See no need
Prevention	Feels uncomfortable
Feel protected	
Became a habit	
Fear of the virus' return	

DISCUSSION

The results showed that most participants, before the COVID-19 pandemic, took actions to avoid transmission when they had flu symptoms. However, these concerns still need to be incorporated by people, as a study carried out in Wuhan, which used COVID-19 data associated with the registration of individuals'

cell phones, identified that people's mobility was the main factor in the spread of SARS-CoV-2, before the implementation of the sanitary mandates¹¹. In other words, reducing the mobility of people can help delay the effects of the peak of the pandemic, making the spread of the disease slower.

According to a Brazilian study¹² that estimated the effects of social distancing measures and the use of a face mask in the Metropolitan Region of São Paulo, it indicated that, by adopting the correct use of the mask, they helped to reduce the demand on the health system and the death of almost 90 thousand people during the pandemic¹².

According to the literature¹³, to verify how effective quarantine measures are in order to prevent deaths from COVID-19, including 22 articles on epidemics such as SARS, MERS and COVID-19, it has been shown that quarantine is an effective measure to reduce the number of cases of COVID-19. However, for effective control of the disease, quarantine must be combined with other prevention measures, such as hand washing, use of a face mask, non-sharing of personal items, and respect for social isolation.

When questioning the opinion of the participants in this study about people who wore face masks in public places, the COVID-19 pandemic broke paradigms such as: “people who wore face masks had chronic or transmissible diseases”. However, due to the severity of the pandemic, the use of the mask became mandatory to reduce the contagion, and in this way, the face mask became less strange for the population and better accepted as a protective measure¹⁴. Therefore, the pandemic scenario contributed to combating prejudice about the use of masks. In addition, this habit can remain post-pandemic, thus contributing to the reduction of other infectious and contagious respiratory diseases. In summary, face masks that, before COVID-19, were seen as “unusual”, are now considered a “necessary” item in public places.

Undoubtedly, the COVID-19 pandemic broke paradigms regarding the use of mask, after all, the main form of transmission of the virus happens through personal contact. The infected person, even without symptoms,

when coughing or sneezing, releases small droplets that can contain the virus and, consequently, contaminate the person who is close, and/or surfaces or objects. However, due to the great demand of Public Health, the use of the mask became mandatory, to reduce contagion and, thus, the frequency of use became less strange for the population and better accepted as one of the protective measures¹⁴.

In this context, Japanese health authorities, aiming to prevent the spread of influenza, in 2007, published a chapter in their pandemic guidelines in which they clarified the use of masks in the community environment by both sick and healthy individuals in public environments¹⁵.

When asked how they felt using the mask in this pandemic, one of the responses observed was that they felt protected. This is in line with studies that showed that face masks, when used correctly, effectively interrupt the dispersion of particles expelled by coughing or sneezing, which prevents the transmission of respiratory diseases¹⁶.

A study carried out in China, on post-exposure transmission in public transport, highlighted the importance of wearing a mask, when a man contaminated while wearing a mask, on a bus with 14 passengers, was not contaminated, as they were all wearing face masks¹⁷.

Thus, it is understood that the use of masks helps to contribute to the awareness of the sense of social and personal responsibility in facing infectious diseases¹⁷. Public participation in the implementation of public health measures helped to control the Severe Acute Respiratory Syndrome (SARS) pandemic, which occurred in 2002-2003, and this will be critical in helping to control the COVID-19 pandemic.

Some participants reported difficulty on wearing the mask as they felt discomfort, suffocation and shortness of breath. Despite these alterations, it is known that the hospital or

cotton mask does not affect the levels of oxygen in the blood of the individual, nor does it trap significant amounts of carbon dioxide¹⁸. These sensations can occur due to the hot air inside the mask that can make breathing difficult, even triggering asthma attacks in people who are asthmatic. In addition, wearing the mask too tight can also cause anxiety, which alters the breathing pattern¹⁸.

In the current study, when asked about the use of disposable and/or reusable face masks, respondents expressed greater adherence to their use even after the COVID-19 pandemic, due to several factors, the most cited among them was the prevention of disease; after all, the main form of transmission of the virus happens through personal contact. If, after touching a surface or object that contains the virus, the person takes their hands to the respiratory tract or eyes, they have a greater chance of being infected¹⁹.

It is known that it is important to take advantage of these moments of pandemic to make the population aware that severe respiratory viruses have existed for a long time and that the measures taken are still insufficient to prevent their spread²⁰. Most people can become infected with common coronaviruses throughout their lives, with young children being more likely to become infected¹⁶.

The WHO estimates that around 290,000 to 650,000 deaths related to respiratory diseases alone occur annually worldwide²¹. For Influenza, there has been a vaccine for at least 22 years. There are several issues, especially adherence to the vaccination schedule, but that does not mean that it is not useful.

Respondents who stated that they would not use the disposable and/or reusable face mask in public places after the COVID-19 pandemic, if they had any flu symptoms, claimed that it would not change much, mainly due to the feeling of discomfort generated by its use.

Regarding the motivations for the use or

not of face masks in public places in case of flu (infectious-contagious respiratory disease), the concern with prevention and protection can be highlighted, which already characterizes self-care. Therefore, there is evidence that non-pharmacological interventions, such as the use of masks, when used together, can act in a complementary way, or simultaneously, so that their overlap comes to “cover the holes” of the “layers” and gradually restrict transmission²². In other words, the use of masks is a very important and essential action to avoid contagion among individuals who are transiting the streets.

Schütz⁸ highlights that individuals have reasons that explain their actions, which are reasons that are rooted in past experiences, in the personality that man has developed during his life and which are called “reasons why”. The “reason why” constitutes a kind of accumulation of social knowledge, which is transmitted by our predecessors as cultural heritage, from the deposit of knowledge arising from personal experience.

Despite the knowledge of the effectiveness of using a face mask, especially in places where it is not possible to maintain a minimum safety distance, its use must be accompanied by other non-pharmacological protection measures, such as frequent hand washing²³.

Among the negative points regarding the use of the face mask, the interviewees in this study reported the difficulty in social interaction among mask users, as it makes it impossible to recognize people.

It is noticed that the participants have a “reason to” use the mask in the post-pandemic period. Schütz⁸ considers this motive as the state that is intended to be achieved by the actor's action, and is related to the ongoing action process, which is being done, but projected for the future. The “reason why” is a context of meaning, which is established or is established on the context of experien-

ces available at the time of projection of the action, this category being essentially subjective, and can be unveiled through the interpretation of the actor's subjectivity, who is the one who can define their action⁸.

When asked what they should do to prevent the transmission of the flu or other infectious respiratory disease, most responded that it would be the use of a mask, social distancing and strengthening hygiene habits, such as hand washing and use of alcohol gel. In this line of thinking, it is recommended, in addition to the hands, to sanitize personal objects; when coughing or sneezing, in the absence of a tissue, you should cover your nose and mouth with your arm instead of your hands; avoid touching eyes and airways with unwashed hands whenever possible²⁴. It is also recommended to keep a minimum distance of 2 meters from people who are coughing or

sneezing, in addition to avoiding any physical contact, such as hugs, handshakes, and kisses, especially if you are a possibly infected person.

One of the measures to combat COVID-19 has been social isolation (for infected or suspected people) and social distancing, directly affecting the routine of society. Something that was strongly recommended by the Ministry of Health: "social distancing is essential to delay the spread of the virus, but if you need to leave the house, always leave with a mask and gel alcohol, and avoid going to unnecessary places"²⁵.

Using the perspective of Alfred Schütz's Social Phenomenology⁸, it made it possible for us to grasp the meanings, motives, and intentions attributed and experienced by the subjects, with regards to the use of the mask in the post-pandemic of COVID-19.

CONCLUSION

From the results obtained, it was possible to identify that the mandatory use of the mask is one of the facilitating reasons that led the study participants to use a face mask in a public place. They demonstrated the concern that participants have regarding their self-care, even before the COVID-19 pandemic. It showed that, by understanding the reasons for adopting the use of face masks in public places before and after COVID-19, they realized the importance of prevention and the role of each one in this process.

The possibility of promoting awareness of social and individual responsibility in relation to the necessary care to avoid contagion and transmission of respiratory diseases is highlighted, through the adoption of the use of face masks and hand washing. Thus, encouraging

the use of face masks by people with symptoms of infectious-contagious respiratory diseases in public places becomes a low-cost, non-pharmacological method for preventing the spread of infectious-contagious respiratory diseases.

Despite the conviction that the development of this study brings information of great relevance to society regarding the use of face masks in public places in the prevention of infectious and contagious respiratory diseases, there is the limitation that the participants do not represent the position of the Brazilian population in general. Thus, it is necessary that other qualitative and quantitative studies be carried out in other regions of Brazil, so that educational strategies for health promotion are implemented.

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REFERENCES

1. Mitsutoshi Horii. Why do the Japanese wear masks? A short historical review. *Electronic journal of contemporary japanese studies* [Internet]. 2014 v.14 n.2. Art.8 [acesso em 2 abr. 2021]. Disponível em: <http://www.japanesestudies.org.uk/ejcs/vol14/iss2/horii.html>
2. Organização Mundial da Saúde. Checklist for influenza pandemic preparedness planning: Department of Communicable Disease Surveillance and Response Global Influenza Programme. Epidemic alert & response [Internet]. WHO, 2005 [acesso em 2 abr. 2021]. Disponível em: <http://www.who.int/influenza/resources/documents/FluCheck6web.pdf>
3. Vasquez LM. Educação em saúde sobre infecções respiratórias agudas nos pacientes da unidade de saúde Jardim Araucária de Guarapuava/Paraná. Universidade Federal de Santa Catarina, 2019 [acesso em 2 abr. 2021]. Disponível em: <https://ares.unasus.gov.br/acervo/handle/ARES/13247>
4. Taminato M, Mizusaki-Imoto A, Saconato H, Franco ESB, Puga ME, Duarte ML, et al. Máscaras de tecido na contenção de gotículas respiratórias - revisão sistemática. Escola Paulista de Enfermagem, [Internet]. 2020 [acesso em 12 abr. 2021]. Disponível em: <https://doi.org/10.37689/acta-ape/2020AR0103>
5. Oliveira WK, Duarte E, de França GVA, Garcia LP. Como o Brasil pode deter a COVID-19. *Epidemiologia e Serviços de Saúde* [Internet]. v. 29, n. 2 [acesso em 14 jun. 2021], e2020044. Disponível em: <https://doi.org/10.5123/S1679-49742020000200023>
6. Silva CJ de A, et al. Doenças infectocontagiosas e a pessoa idosa: perspectivas para o ensino da enfermagem pós-pandemia COVID-19. In: Santana RF (Org.). *Enfermagem gerontológica no cuidado do idoso em tempos da COVID 19*. Brasília, DF: Editora ABEn; 2021. 171 p. (Serie Enfermagem e Pandemias, 5). [acesso em 14 jun. 2021] Disponível em: <https://doi.org/10.51234/aben.21.e05.c20>
7. Ortelan N, Ferreira AJF, Leite L, Pescarini JM, Souto AC, Barreto ML, et al. Máscaras de tecido em locais públicos: intervenção essencial na prevenção da COVID-19 no Brasil. *Ciência & Saúde Coletiva* [internet]. 2021 [citado 20 de abril de 2021];26(2):669-92 [acesso em 27 abr. 2020]. Disponível em: <https://www.scielo.br/j/csc/a/qNQ5bT4JCch7C8ZVw5cgpfi/?lang=pt>
8. Schütz A. *El problema de la realidad social*. Buenos Aires: Amorrortu; 2008 [acesso em 27 abr. 2020].
9. Schütz A, Luckmann T. *Las estructuras del mundo de la vida*. Buenos Aires: Amorrortu; [Internet] 2009 [acesso em 27 abr. 2020]. Disponível em: <https://www.scielo.br/j/interc/a/Ymp6nzHtK8CTw7J7PqtFwmp/?lang=es>
10. Jesus MCP de, Capalbo C, Merighi MAB, Oliveira DM de, Tocantins FR, Rodrigues BMRD, et al. A fenomenologia social de Alfred Schütz e sua contribuição para a enfermagem. *Revista escola de enfermagem da USP* [Internet]. Junho de 2013 [acesso em 22 mar. 2021]; 47(3):736-741. Disponível em: <https://doi.org/10.1590/S0080-623420130000300030>
11. Kraemer MUG, Yang C-H, Gutierrez B, Wu C-H, Klein B, Pigott DM, et al. The effect of human mobility and control measures on the COVID-19 epidemic in China. *Science* [Internet]. 25 Mar. 2020 [acesso em 07 fev. 2021]. Disponível em: <https://science.sciencemag.org/content/368/6490/493>.
12. Ganem F, Mendes FM, de Oliveira SB, Porto VBG, de Araújo WN, Nakaya HI, et al. The impact of early social distancing at COVID-19 Outbreak in the largest Metropolitan Area of Brazil. *medRxiv* [Internet]. 15 Abril de 2020 [acesso em 07 fev. 2021]. Disponível em: <https://doi.org/10.1101/2020.04.06.20055103>
13. Nussbaumer-Streit B, Mayr V, Dobrescu AI, Chapman A, Persad E, Klerings I, et al. Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review. *Cochrane Database Syst Rev* [Internet]. 14 Set. 2020 [acesso em 07 fev. 2021]. Disponível em: <https://doi.org/10.1002/14651858.CD013574.pub2>
14. Abud CO, Souza LP. Uso obrigatório de máscara facial para conter a COVID-19 no Brasil: limitação legítima ao direito fundamental de autodeterminação. *Vigil. sanit. Debate* [internet]. Julho 2020 [acesso em 07 fev. 2021]. Disponível em: <https://visaemdebate.incqs.fiocruz.br/index.php/visaemdebate/article/view/1651/1193>
15. Pandemic Influenza Experts Advisory Committee. Guideline for Infection Prevention for Individuals, Families, Local Communities and Municipalities. Pandemic Influenza Experts Advisory Committee [Internet]. 26 mar 2007 [acesso em 20 jul. 2018]. Disponível em: <https://www.mhlw.go.jp/bunya/kenkou/kekkaku-kansenshou04/pdf/09-e12.pdf>

16. Milton DK, Fabian MP, Cowling BJ, Grantham ML, McDevitt JJ. Influenza virus aerosols in human exhaled breath: particle size, culturability, and effect of surgical masks. Fouchier RAM, editor. PLoS Pathog [Internet]. Março de 2013 [acesso em 07 fev. 2013]. Disponível em: <https://doi.org/10.1371/journal.ppat.1003205>
17. Liu X, Zhang S. COVID-19: Face masks and human-to-human transmission. Influenza Other Respir Viruses [Internet]. Março de 2020 [acesso em 07 fev. 2021]. Disponível em: <https://doi.org/10.1111/irv.12740>
18. Dattel AR, O'Toole NM, Lopez G, Byrnes KP. Face Mask Effects of CO₂, Heart Rate, Respiration Rate, and Oxygen Saturation on Instructor Pilots. The Collegiate Aviation Review International [Internet]. Julho de 2020 [citado 24 de fevereiro de 2022], v. 38. [acesso em 07 fev. 2021]. Disponível em: <http://ojs.library.okstate.edu/osu/index.php/CARI/article/view/8038/7412>
19. Folha informativa sobre COVID-19 [Internet]. Organização Pan-Americana de Saúde [citado 14 de junho de 2021] [acesso em 14 jun. 2021]. Disponível em: <https://www.paho.org/pt/covid19>
20. Felício LV, Rossi CC, Pereira MF. A emergência de um novo coronavírus zoonótico: SARS-CoV-2 e a pandemia da COVID-19. SAPIENS - Revista de divulgação científica [Internet]. 2020 [citado 14 de junho de 2021];2(2):21-38 [acesso em 24 de fev. 2021]. Disponível em: <https://revista.uemg.br/index.php/sps/article/view/5271>
21. Organização Mundial da Saúde. OMS lança nova estratégia para controle da gripe no mundo [Internet]. Nações Unidas Brasil; 12 de Março de 2019; [citado 14 de junho de 2021] [acesso em 07 fev. 2021]. Disponível em: <https://brasil.un.org/pt-br/82598-oms-lanca-nova-estrategia-para-controle-da-gripe-no-mundo>
22. Qualls N, Levitt A, Kanade N, Wright-Jegede N, Dopson S, Biggerstaff M, et al. Community Mitigation Guidelines to Prevent Pandemic Influenza - United States, 2017. MMWR Recomm Rep [Internet]. Abril de 2017 [citado 8 de abril de 2020];66(1):1-34 [acesso em 7 fev. 2021]. Disponível em: <https://doi.org/10.15585/mmwr.rr6601a1>
23. Garcia LP, Duarte E. Intervenções não farmacológicas para o enfrentamento à epidemia da Covid-19 no Brasil. Epidemiologia e Serviços de Saúde [Internet]. 9 de abril de 2020 [citado 5 de novembro de 2020];29(2):e2020222 [acesso em 14 jun. 2021]. Disponível em: <https://doi.org/10.5123/S1679-49742020000200009>
24. Garcia LP. Uso de máscara facial para limitar a transmissão da COVID-19. Epidemiologia e Serviços de Saúde [Internet]. v. 29, n. 2 [acesso em 14 jun. 2021], e2020023. Disponível em: <https://doi.org/10.5123/S1679-49742020000200021>
25. Salles LR, Diniz LP, Shiomatsu GY, Ninomiya VY, de Carvalho RT. O uso de máscaras na prevenção do novo coronavírus. Secretaria de Estado de Saúde de Minas Gerais [Internet]. 16 de junho de 2021 [acesso em 04 jun. 2021]. Disponível em: <https://coronavirus.saude.mg.gov.br/blog/101-mascaras-e-covid-19>

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Supplementary Material

Masks Project Form

Name (initials): _____ Age: _____ Gender: () female () male () others
Region where you live: () North () East () West () South
Marital Status: () Married () In a stable relationship () Single () Widowed () Divorced
() Separated () Others
Education: () Fund. incompl. () Fund. Compl. () Medium Incompl. () Medium Compl.
() Sup. Comp. () Sup. Incompl. () Post
Number of Children: _____ Profession: _____

1. Did you get the flu shot in 2020? () yes () no
Because: _____
2. Would you get the COVID-19 vaccine? () yes () no
Because: _____
3. What precautions do you take to avoid the flu throughout the year?
4. What did you do to prevent transmission when you had flu-like symptoms?
(before the COVID-19 pandemic)
5. What was your opinion of people who wore face masks before COVID-19? And now?
6. How do you feel wearing the mask now in the Pandemic?
7. Would you continue to wear this disposable face mask in a public place after the
COVID-19 Pandemic if you had flu-like symptoms? () yes () no
Because: _____
8. Cite two positives and two negatives of wearing the mask in a public place in case of
flu?
Positive: _____
Negative: _____
9. Suggestion to avoid the transmission of flu or other infectious respiratory disease?

Masks Project Form