

The Use of Drugs in the COVID-19 Treatment: The Self-medication Issue

Vitória Dias dos Santos, Bruna Passos Santos, Carla Thawanne Silva Andrade, Gustavo Alves Aguiar, Halley Ferraro Oliveira (Tiradentes Univsersity, Brazil)

Abstract: The process of auto medication is considered as a recurring factor, even cultural. However, it is noted that this habit increases at the same time of the dissemination of COVID-19, in a pandemic of a new virus, which, until then, had no specific drug effectively proven in vivo. The dangers of auto medication and the importance of alerting the population that uses this tactic is understandable based on a retrospective study and pharmacology revision, through the collection of data from a population group and support from the literature. Thus, this work aims to identify the motivation factors and consequences attached to the use of medication without medical prescription.

Key words: self-medication; pandemic; COVID-19; treatment **JEL code:** I19

1. Introduction

Self-medication regards the use of drugs without medical prescription, being seen as a solution to symptom ease with consequences, such as disease worsening, immune-suppression, intoxication and, on antibiotics, the increase of resistance towards microorganisms.

With the COVID-19 pandemic advent, due to the mortality potential and the news incidence, emerges the increase of indiscriminate use of medicine, without in vivo validated scientific efficiency, such as hydroxychloroquine, dexamethasone and ivermectin.

It's noticeable, then, the need to analyze the drug utilization in the COVID-19 treatment regarding the self-medication issue. In the face of what was exposed, is submitted the overall goal to achieve the description of computed data through virtual form about self-medication within the COVID-19 pandemic context.

2. Theoretical Development

Pharmacology can be defined as the science which studies the action of chemical substances, structurally defined and designated as drugs, in a living organism. Therefore, it's a part of the pharmacology's objective the knowledge regarding the origin, properties, as well as the uses and effects of these substances in the organism, definition established on the book "Drugs and medicines", by the full professor of pharmaceutical chemistry, Lourival Larini (2008, p. 17).

According to scientific studies published by the Oswaldo Cruz Foundation, there are diverse social,

Vitória Dias dos Santos, Medical Student, Tiradentes Univsersity; research area: health. E-mail: vitoria.ddos@souunit.com.br.

economic and political factors that contribute to self-medication, such as lack of resources to medical care, cultural habits, media influence and lack of information (Andrade J. Júlio de, 2005).

In Brazil, even with regulation by the National Health Surveillance Agency (ANVISA) towards the selling and advertising of medicines that can be acquired without medical prescription, there is neither regulation nor orientation to those who utilize them. Therefore, issues are triggered, such as the increase of microorganism resistance, expected to be the next pandemic, according to the World Health Organization (Mediavilla, 2020).

In the face of that, with the advent of the COVID-19 pandemic, due to the high mortality rate and vaccine administration, the population paid attention to the news regarding possible solutions through medications without validated efficiency. Thereby, the increase of using medicines without medical prescription led to the lack of those drugs among needy patients, such as lupus diagnosed patients and the utilization of hydroxychloroquine, besides the risks of intoxication and immune-suppression.

In retrospective study, 542 answers were collected. It was analyzed that 89.1% of the interviewed use medication without medical prescription. In the face of malaise, 64.6% self-medicate, but then look for a professional, almost 20% stress that they self-medicate and don't look for medical care and only 15.5% look for a physician right away.

Therefore, about the medication reported as promising regarding the healing of COVID-19, 6.6% used at least one of the announced drugs, 10.9% had symptoms related to flu syndrome and didn't self-medicate, 8.1% had the symptoms and used the alleged efficient drugs, 6.8% didn't have the symptoms, but affirmed they would use the reported medications, 4.6% bought the drugs, but didn't use them, 17.9% bought medications such as hydroxychloroquine and ivermectin, and used at least one and 2.2% bought the medicines and affirmed that in the advertising of new drugs they would do it again.



Figure 1 Graph Generated From the Form Applied to Survey Participants

3. Methodological Procedures

The application of the virtual questionnaire was initiated, promoted in July 2020, related to self-medication

regarding the spread of news about studies of drugs applied on obtaining a cure for COVID-19. With the target audience made of men and women with diverse ages, being most of them between 19 and 30 years old.

Likewise, there is literature support based on specialized authors in the area such as "Drugs and medications", by the full professor of pharmaceutical chemistry Lourival Larini, scientific articles published by the Oswaldo Cruz Foundation, Virtual Library in Health and Scielo, besides retrospective studies by the World Health Organization.

4. Conclusion

It's observed that self-medication is linked to economic, social and political factors. It's understood, thereby, that its practice became common within the social context of the pandemic that denies the harms. Therefore, with the fear before the new virus and the spread of news about possible solutions, drug use without medical prescription among the interviewed is verified.

The research results confirmed that with the pandemic advent, a part of the population self-medicates without medical prescription. Therefore, it's noticed that more studies about the theme are necessary, considering their impact on health. Furthermore, the diffusion of the risks, in a clear way, in order to alert the population.

Acknowledgements

This article was produced with the authorization of the interviewees for the purposes of scientific production and under the supervision of the supervisor Halley Ferraro Oliveira.

References

- Automedicação. Rev. Assoc. Med. Bras., São Paulo, Vol. 47, No. 4, pp. 269-270, Dec. 2001, accessed on 29 Oct. 2020, available online at: http://www.scielo.br/scielo.php?script=sci_arttextπd=S0104-42302001000400001&lng=en&nrm=iso, doi: https://doi.org/10.1590/S0104-42302001000400001.
- Fiocruz NO AR (2020). "Covid-19 e o uso abusivo de antibióticos", Rosana Pussenti. Rio de Janeiro: Fiocruz no Ar, 22 ago. 2020.Podcast,accessedon31Aug.2020,availableonlineat:https://soundcloud.com/user-881543515/fiocruz-no-ar-covid-19-e-o-uso-abusivo-de-a ntibioticos.https://soundcloud.com/user-881543515/fiocruz-no-ar-covid-19-e-o-uso-abusivo-de-a ntibioticos.https://soundcloud.com/user-881543515/fiocruz-no-ar-covid-19-e-o-uso-abusivo-de-a ntibioticos.

Fiocruz NO AR (2020). "Os riscos do consumo de antibióticos sem receita médica", Maya Sangawa. Rio de Janeiro: Fiocruz no Ar, 05 jun. 2019, Podcast, accessed on 1 Sept. 2020, available online at: https://soundcloud.com/user-881543515/fiocruz-antibiotico-sem-receita-os-riscos.

Fonseca José Júlio de Andrade, Frade Josélia (2005). "Automedicação, velho hábito brasileiro", in: Silva Ana Célia Pessoa et al., *Centro Colaborador em Vigilância Sanitária*, accessed on 29 Oct. 2020, available online at: http://www6.ensp.fiocruz.br/visa/?q=node/5499.

Larini Lourival (2008). Fármacos e Medicamentos, Artmed Editora S.A., p. 401.

- Mediavilla Daniel (2020). "Superbactérias, a próxima pandemia: Eficácia de antibióticos é reduzida pelo uso indevido, e criar novos medicamentos para substituí-los não é rentável para as empresas farmacêuticas", accessed on 29 Oct. 2020, available online at: https://brasil.elpais.com/ciencia/2020-08-30/superbacterias-a-proxima-pandemia.html.
- Silva Islany Dynara Diogenes et al. (2020). "Acesso e implicações da automedicação em idosos na atenção primária à saúde", J. *Health NPEPS*, Vol. 4, No. 2, pp. 132-150.
- Werneck Guilherme Loureiro and Carvalho Marilia Sá (2020). "A pandemia de COVID-19 no Brasil: Crônica de uma crise sanitária anunciada", *Revista Scielo*, Vol. 36, No. 5, pp. 1-4.