

Boletim BiblioCovid

Boletim BiblioCovid v.3 n.10, Outubro 2022 | Covid e negacionismo científico

Boletim destinado a apresentação de estratégias e artigos científicos sobre temas relacionados à Covid-19.

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Covid e negacionismo científico



Base utilizada

Portal Regional da BVS

Termos Utilizados (com base nos Descritores em Ciências da Saúde – DeCs)



Descritores e/ou palavras-chave

Jornalismo científico

Desinformação

Negacionismo

Recusa de vacinação

Movimento contra

vacinação

COVID-19

Pandemias

SARS-COV-2

Vacinas contra Covid-

19

Filtros utilizadas

Texto completo,
2020-2022

Estratégias de busca

(covid-19 OR "Sars-Cov-2" OR pandemia) AND ("Jornalismo Científico" OR desinformação OR negativismo OR negacionismo OR "Recusa de Vacinação" OR "Movimento contra Vacinação" OR covid-19 antivax) AND (fulltext:("1" OR "1" OR "1" OR "1") AND type:("article")) AND (year_cluster:[2020 TO 2022])

Seleção dos dez artigos mais relevantes, segundo critérios da base de dados Portal regional BVS, incluindo o filtro “texto completo”

1. The Politics of Covid Vaccine Hesitancy and Opposition

DOI: <https://doi.org/10.1111/1467-923X.13134>

Resumo

Opposition to vaccines is not a new phenomenon, but positions once associated with traditional religious or conservative stances have given way to some highly disparate views that transcend traditional left/right/religious divisions. This article reviews recent literature showing how social media has contributed to the spread of conspiracy theories around Covid-19 and mass vaccination programmes. The narratives discussed are principally those of the right and the religious right.

Referência

SORELL, T.; BUTLER, J. The politics of covid vaccine hesitancy and opposition. *The political quarterly*, v. 93, n. 2, abr.-jun. 2022.

2. COVID-19 vaccine hesitancy among medical students: A systematic review

[DOI: 10.4103/jehp.jehp_940_21](https://doi.org/10.4103/jehp.jehp_940_21)

Resumo

Vaccine hesitancy leads to an increase in morbidity, mortality, and health-care burden. Reasons for vaccine hesitancy include anti-vax group statements, misinformation about vaccine side effects, speed of vaccine development, and general disbelief in the existence of viruses like COVID-19. Medical students are future physicians and are key influencers in the uptake of vaccines. Hence, investigating vaccine hesitancy in this population can help to overcome any barrier in vaccine acceptance. In this paper, we review five articles on COVID-19 vaccine hesitancy in medical students and consider potential future research. All published papers relevant to the topic were obtained through extensive search using major databases. Inclusion criteria included studies that specifically investigated COVID-19 vaccine hesitancy in medical students published between 2020 and 2021. Exclusion criteria included studies that investigated vaccine hesitancy in health-care professionals, allied health, and viruses apart from COVID-19. A total of 10 studies were found from our search.

Based on our exclusion criteria, only five studies were included in our review. The sample size ranged from 168 to 2133 medical students. The percentage of vaccine hesitancy in medical students ranged from 10.6 to 65.1%. Reasons for vaccine hesitancy included concern about serious side effects, vaccine efficacy, misinformation and insufficient information, disbelief in public health experts, financial costs, and belief that they had acquired immunity.

These results suggest that vaccine hesitancy is an important cause of the incidence and prevalence of COVID-19 cases. Identifying the barriers of vaccine hesitancy in prospective physicians can help increase vaccination uptake in the general public. Further research is necessary to identify the root cause of these barriers.

Referência

VENKATESAN, K.; MENON, S.; HAROON, N.N.; COVID-19 vaccine hesitancy among medical students: a Systematic review. **J Educ Health Promot**, v. 11, 2022.

3. Treating Anti-Vax Patients, a New Occupational Stressor-Data from the 4th Wave of the Prospective Study of Intensivists and COVID-19 (PSIC)

DOI: <https://doi.org/10.3390/ijerph19105889>

Resumo

The Prospective Study of Intensivists and COVID-19 (PSIC) is a longitudinal study that besides investigating a cohort of intensivists from one of the two COVID-19 hub hospitals in Central Italy since the beginning of the pandemic (first wave, April 2020), has conducted a new survey at each successive wave. In addition to the variables investigated in previous surveys (job changes due to the pandemic, justice of safety procedures, job stress, sleep quality, satisfaction, happiness, anxiety, depression, burnout, and intention to quit), the latest fourth wave (December 2021) study has evaluated discomfort in caring for anti-vax patients. A multivariate logistic regression model confirmed that high levels of occupational stress (distressed 75.8%) were associated with isolation, monotony, lack of time for meditation, and poor relationships with anti-vaccination patients. Compared to the first phase, there was a reduction in levels of insomnia and anxiety, but the percentage of intensivists manifesting symptoms of depression remained high (58.9%). The study underlined the efficacy of organizational interventions and psychological support.

Referência

MAGNAVITA, N.; SOAVE, P.M.; ANTONELLI, M. Treating antivax patients, a new occupational stressor: data form the 4th wave of the prospective study of intensivists and COVID-19 (PSIC). **Int J Res Public Health**, v. 19, n. 10, 2022.

4. Equidade e vulnerabilidade em saúde no acesso às vacinas contra a COVID-19

DOI: <https://doi.org/10.26633/RPSP.2022.31>

Resumo

O presente artigo discute a importância da equidade no acesso aos serviços de saúde, refletindo sobre a aquisição e a distribuição de vacinas — insumos estratégicos e fundamentais no contexto da COVID-19. Ainda, aborda aspectos que aumentam os riscos de transmissão, reinfeção e surgimento de novas variantes, como fake news, negacionismo e movimento antivacina, os quais perpetuam o ciclo epidêmico. Ressalta-se a importância de todos os setores da sociedade traçarem planos e políticas de saúde para o controle da pandemia em um contexto nacional e global de enfrentamento conjunto, considerando a necessidade de garantir o acesso universal e oportuno a vacinas e insumos e à logística necessária para sua aplicação. A equidade é examinada como o princípio norteador global para a redução da vulnerabilidade no acesso às vacinas contra a COVID-19, sendo destacado o panorama do Brasil — onde, apesar da ampla expertise em vacinação, um cenário de queda em investimentos em ciência e tecnologia, logística precária e corrupção colocam em risco o acesso às vacinas. Por fim, são apresentados possíveis caminhos que podem ser explorados e transformados em ações a serem realizadas por diversos setores da sociedade — por exemplo, a priorização de regiões e grupos sociais vulneráveis para distribuição de vacinas — e que permitam alcançar a equidade no acesso aos serviços de saúde em relação à cobertura vacinal da COVID-19.

Referência

CASTRO-NUNES, P.; RIBEIRO, G.R. Equidade e vulnerabilidade em saúde no acesso às vacinas contra a Covid-19. **Pan-American Journal of Public health**, v. 46, 2022.

5. COVID-19 Vaccine Hesitancy in a Rural Primary Care Setting

DOI: [10.7759/cureus.27196](https://doi.org/10.7759/cureus.27196)

Resumo

As the United States clamors with anti-vax protests, researchers seek to understand what social and behavioral values are keeping patients from electing to vaccinate themselves against the coronavirus disease 2019 (COVID-19) virus. Over the past year, the race to vaccinate has become less about developing working vaccines and more about finding ways to encourage vaccine uptake. This paper examines the question of vaccine hesitancy in rural Chemung County, NY. In identifying various psychosocial barriers to patient vaccination, which we hypothesize will be mostly political, we seek to understand the local mindset in the hope that our data guide the way to change it.

Referência

TERRY, R.; ASRAR, A.; LAVERTURE, S. Covid-19 vaccine hesitancy in a rural primary care setting. **Cureus**, v. 14, n. 17, Jul. 2022.

6. ANTi-Vax: a novel Twitter dataset for COVID-19 vaccine misinformation detection

DOI: <https://doi.org/10.1016/j.puhe.2021.11.022>

Resumo

Objectives

COVID-19 (SARS-CoV-2) pandemic has infected hundreds of millions and inflicted millions of deaths around the globe. Fortunately, the introduction of COVID-19 vaccines provided a glimmer of hope and a pathway to recovery. However, owing to misinformation being spread on social media and other platforms, there has been a rise in vaccine hesitancy which can lead to a negative impact on vaccine uptake in the population. The goal of this research is to introduce a novel machine learning–based COVID-19 vaccine misinformation detection framework.

Study design

We collected and annotated COVID-19 vaccine tweets and trained machine learning algorithms to classify vaccine misinformation.

Methods

More than 15,000 tweets were annotated as misinformation or general vaccine tweets using reliable sources and validated by medical experts. The classification models explored were XGBoost, LSTM, and BERT transformer model.

Results

The best classification performance was obtained using BERT, resulting in 0.98 F1-score on the test set. The precision and recall scores were 0.97 and 0.98, respectively.

Conclusion

Machine learning–based models are effective in detecting misinformation regarding COVID-19 vaccines on social media platforms.

Referência

HAYAWI, K. et al. ANTi-Vax: a novel Twitter dataset for COVID-19 vaccine misinformation detection. **Public health**, v. 203, fev. 2022.

7. Development of a Codebook of Online Anti-Vaccination Rhetoric to Manage COVID-19 Vaccine Misinformation

DOI: <https://doi.org/10.3390/ijerph18147556>

Resumo

Vaccine hesitancy (delay in obtaining a vaccine, despite availability) represents a significant hurdle to managing the COVID-19 pandemic. Vaccine hesitancy is in part related to the prevalence of anti-vaccine misinformation and disinformation, which are spread through social media and user-generated content platforms. This study uses qualitative coding methodology to identify salient narratives and rhetorical styles common to anti-vaccine and COVID-denialist media. It organizes these narratives and rhetorics according to theme, imagined antagonist, and frequency. Most frequent were narratives centered on "corrupt elites" and rhetorics appealing to the vulnerability of children. The identification of these narratives and rhetorics may assist in developing effective public health messaging campaigns, since narrative and emotion have demonstrated persuasive effectiveness in other public health communication settings.

Referência

HUGHES, B. et al. Development of a Codebook of Online Anti-Vaccination Rhetoric to Manage COVID-19 Vaccine Misinformation. **Int. J Environ Res Public Health**, v. 18, n. 14, 2022.

8. Preventing the next pandemic and tackling antiscience: an interview with Peter Hotez

DOI: <https://doi.org/10.2217/fmb-2021-0088>

Resumo

This interview was conducted by Atiya Henry, Commissioning Editor of Future Microbiology. Peter J Hotez, MD, PhD is Dean of the National School of Tropical Medicine and Professor of Pediatrics and Molecular Virology & Microbiology at Baylor College of Medicine. He is an internationally recognized physician–scientist in neglected tropical diseases and vaccine development. As head of the Texas Children’s Center for Vaccine Development, he leads a team and product development partnership for developing new vaccines for hookworm infection, schistosomiasis, leishmaniasis, Chagas disease and SARS/MERS/SARS-2 coronavirus. Dr Hotez has authored more than 500 original papers and is the author of four single-author books. Most recently as both a vaccine scientist and autism parent, he has led national efforts to defend vaccines and to serve as an ardent champion of vaccines going up against a growing national ‘antivax’ threat.

Referência

HOTEZ, P. Preventing the next pandemic and tackling antiscience: an interview with Peter Hotez. **Future Medicine**, v. 16, n. 8, 2022.

9. MMR Vaccine Attitude and Uptake Research in the United Kingdom: A Critical Review

DOI: <https://doi.org/10.3390/vaccines9040402>

Resumo

This review critically assesses the body of research about Measles-Mumps-and-Rubella (MMR) vaccine attitudes and uptake in the United Kingdom (UK) over the past 10 years. We searched PubMed and Scopus, with terms aimed at capturing relevant literature on attitudes about, and uptake of, the MMR vaccine. Two researchers screened for abstract eligibility and after de-duplication 934 studies were selected. After screening, 40 references were included for full-text review and thematic synthesis by three researchers. We were interested in the methodologies employed and grouped findings by whether studies concerned (1) Uptake and Demographics; (2) Beliefs and Attitudes; (3) Healthcare Worker Focus; (4) Experimental and Psychometric Intervention; and (5) Mixed Methods. We identified group and individual level determinants for attitudes, operating directly and indirectly, which influence vaccine uptake. We found that access issues, often ignored within the public "anti-vax" debate, remain highly pertinent. Finally, a consistent theme was the effect of misinformation or lack of knowledge and trust in healthcare, often stemming from the Wakefield controversy. Future immunisation campaigns for children, including for COVID-19, should consider both access and attitudinal aspects of vaccination, and incorporate a range of methodologies to assess progress, taking into account socio-economic variables and the needs of disadvantaged groups.

Referência

TORRACINTA, L.; TANNER, R.; VANDERSLOTT, S. MMR Vaccine Attitude and Uptake Research in the United Kingdom: A Critical Review. **Vaccines**, v. 9, 2022.

10. Quantifying COVID-19 Content in the Online Health Opinion War Using Machine Learning

DOI: [10.1109/ACCESS.2020.2993967](https://doi.org/10.1109/ACCESS.2020.2993967)

Resumo

A huge amount of potentially dangerous COVID-19 misinformation is appearing online. Here we use machine learning to quantify COVID-19 content among online opponents of establishment health guidance, in particular vaccinations ("anti-vax"). We find that the anti-vax community is developing a less focused debate around COVID-19 than its counterpart, the pro-vaccination ("pro-vax") community. However, the anti-vax community exhibits a broader range of "flavors" of COVID-19 topics, and hence can appeal to a broader cross-section of individuals seeking COVID-19 guidance online, e.g. individuals wary of a mandatory fast-tracked COVID-19 vaccine or those seeking alternative remedies. Hence the anti-vax community looks better positioned to attract fresh support going forward than the pro-vax community. This is concerning since a widespread lack of adoption of a COVID-19 vaccine will mean the world falls short of providing herd immunity, leaving countries open to future COVID-19 resurgences. We provide a mechanistic model that interprets these results and could help in assessing the likely efficacy of intervention strategies. Our approach is scalable and hence tackles the urgent problem facing social media platforms of having to analyze huge volumes of online health misinformation and disinformation.

Referência

SEAR, R.F. et al. Quantifying Covid-19 content in the online health opinion war machine learning. **IEEE access**, v. 8, 2022.



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Coordenação do Projeto

Viviane Veiga (ICICT- Coordenadora da Rede de Bibliotecas Fiocruz)

Patrícia Mendes (ICICT/CRBF)

Adriano da Silva (ENSP/BibCLAVES)

Gizele Ribeiro (ICICT/BibSP)

Referencistas responsáveis

Adrienne Oliveira de Andrade da Silva (BHCS/COC)

Adriano da Silva (BSP/ Icict)

Isabella Pereira- Bolsista (ICICT/CRBF)

Apoio

Isabella Pereira - Bolsista (ICICT/CRBF)

Açucena Costa Lima - Estagiária da Rede de Bibliotecas |FIOCRUZ

Projeto gráfico

Luciana Rocha Mariz Clua – Multimeios|ICICT|FIOCRUZ

Diagramação

Luciana Rocha Mariz Clua – Multimeios|ICICT|FIOCRUZ

Isabella Pereira - Bolsista (ICICT/CRBF)

Açucena Costa Lima - Estagiária da Rede de Bibliotecas |FIOCRUZ

Ilustração BiblioCovid: Luciana Rocha Mariz Clua -
Multimeios|ICICT|FIOCRUZ

Imagens: Pixabay

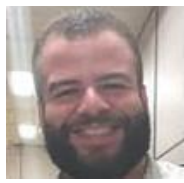
Rede de Referencistas da Rede de Bibliotecas Fiocruz



Viviane Veiga
ICICT/CRBF



Patricia Mendes
ICICT/CRBF



Adriano da Silva
ENSP/BibCLAVES



Martha Silveira
Fiocruz Bahia/BibIGM



Gizele Ribeiro
ICICT/BibSP



Adagilson Silva
Fiocruz PE/BibIAM



Adrienne Oliveira
COC/BHCS



Arlete Santos
ENSP/BibCESTEH



Giovania Santos
de Jesus
ICICT/CRBF



Glauce de Oliveira
Pereira
ICICT/BibSP



Marise Terra
Lachini - COC/BHCS



Marluce Maciel
Antelo - EPSJV/
BibEB



Mayara Alves
Fiocruz Petrópolis/
BibPFI



Vera Queiróz
ENSP/BibGESTEC



Nuzia Santos
Fiocruz Minas
BibMINAS



Rachel Alves
Pereira Azevedo
COC/ BHCS



Renata Azeredo
EPSJV/BibEB



Janaína Leal
INCQS/BIBINCQS



Isabella Pereira
ICICT/CRBF