

BMS brazilian
medical
students

THE WORLD IN TRANSITION:

Innovations, Alternatives
and Solutions in face
of the COVID-19 Pandemic.

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Mariana Martins

National President of IFMSA Brazil

Dear reader,

It is with great enthusiasm that I present you the newest edition of Brazilian Medical Students (BMS) amid the pandemic of the covid-19 virus. Living this historic moment is challenging, but it is also celebrating an equally historic and remarkable journal. This is because this edition is the result of the institutional resilience of IFMSA Brazil and of each local coordinator as an individual without neglecting maximum respect for science. In a scenario of breaking paradigms, BMS assumes an important mission by promoting open access to successful initiatives related to innovations and alternatives to the pandemic.

With this mission in focus, I am proud to say that BMS has a political role in a country like Brazil, in which there are high levels of illiteracy in health and challenges in the face of digital literacy, since our magazine fosters research and medicine evidence-based, to combat health misinformation. In light of the above, I would like to congratulate all the writers, the Scientific Team and the Communication and Marketing Team for making this extraordinary magazine possible.

Finally, I would like to invite you, dear reader, to look into the extraordinary content of this edition, as well as to be inspired by the activities and experiences shared by our members.

Peace and good,

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Lucas Loiola Ponte Albuquerque Ribeiro

Publication and Research Director

Dear Readers,

This year is being difficult and extreme, with an almost infinite number of challenges, demanding innovation and resilience by all, not only in organizations but in our daily lives. The devaluation of research in Brazil and in the world is worrisome, with leaders across the globe fighting for fake news, misinformation and increasing the current infodemics world-wide.

Our Brazilian Medical Students (BMS), the scientific journal of IFMSA Brazil, inserts itself in this context as a political tool to fight for evidence-based data and informations, being an symbol of resistance and advocacy, with articles open to all medical students across the globe, without monetary investment, & developing Open Science !

I invite you to read our journal and be inspired by all articles chosen and organized with the greatest of efforts by our board of editors and designers, the level was high as the sky, and I could not be more proud of a team's effort and the esteem of science!

As said by Mr. Albert Einstein: " It's on the crisis that are born: inventions, discoveries and great strategies. Who surpasses the crises, surpasses itself. ". And I have said with no doubt that IFMSA Brazil, every author, and all local coordinators are surpassing themselves across this never seen public health and social crises! We are young people that make the difference. We are the leaders of tomorrow and today.

For the last time, Scientific Hugs!

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SUMMARY | SUMÁRIO

MAIN THEME THE WORLD IN TRANSITION	5
xCHANGES EXCHANGES	74
SCOME | MEDICAL EDUCATION	82
SCOPH | PUBLIC HEALTH	102
CAPACITY BUILDING |	132
SCORP | HUMAN RIGHTS & PEACE	145
SCORA | SEXUAL & REPRODUCTIVE HEALTH AND RIGHTS	164





THE WORLD IN TRANSITION

The COVID-19 pandemic is a milestone. One of the greatest challenges of the century, it has been going on for almost a year, with more than 50 million cases and more than 1 million deaths. While looking for ways to return to everyday life, easing restrictions and accepting the "new normal", the crisis inspires innovation.

Whether by new technologies for diagnosis and early detection, vaccines in record time or even an expansion of e-commerce, we have more and more solutions to the problems generated by the pandemic.

Innovations generate inspiration, and it is based on this that the editors of Brazilian Medical Students (BMS) defined the theme for this publication. Activities, research, experiences: the sky's the limit for what can be published in the magazine.

On these pages, you can see the impact of medical students in Brazil in the face of the COVID-19 pandemic. Take the time to read and get excited about our articles!

Camila Graczyk Corrêa

Vice President for internal affairs - 2019/2020

National President elect - 2020/2021

MAIN THEME

BRAZILIAN INDIGENOUS HEALTH: NARRATIVE REVISION ABOUT VULNERABILITIES IN THE FACE OF COVID-19

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Keywords: COVID-19; Indigenous People; Indigenous People's Health.



INTRODUCTION

Political and legal conquests of indigenous peoples were strengthened and organized in the mid 20th century, which gave visibility to indigenous people's claims. In this scenario, the creation of the Secretaria Especial de Saúde Indígena (SESAI), in 2010, ensured that the Health Ministry (MS) became responsible for directly managing the provision of indigenous' healthcare, taking into account cultural, ethnic and epidemiological aspects of indigenous people that live in Brazil.(1)

However, the global pandemic scenario imposed by the human infection by the new Coronavirus (2019-nCoV), worsened the condition of indigenous people on a global scale, as well for the general population. It is noted that there's an acute inequality in the impact of diseases on the 370 million indigenous people around the world, mainly during pandemics, as there are higher rates of critical infection and death, due to the strength of social and cultural determinants of health, and the lack of political power among them.(2)

In Brazil, 896,000 citizens who declared or considered themselves indigenous, according to the last census of the Brazilian Institute of Geography and Statistics (IBGE), made in 2010(3), are at high risk of contamination by the virus due to the constant proximity between indigenous people and non-indigenous people. In this scenario, there is the Yanomami Indigenous Land (TIY), located in the Brazilian Amazon, which is considered the most vulnerable area in this region for the transmission of COVID-19 due to illegal mining, according to researchers from the Federal University of Minas Gerais (UFMG) and Instituto Socioambiental (ISA), reviewed by Oswaldo Cruz Foundation (Fiocruz).(4)

In face of the vulnerability scenario in which indigenous people are inserted during COVID-19's pandemic, it is important to instigate and debate the aspects concerning

this population's healthcare. Therefore, this article seeks to demonstrate the challenges of Brazilian indigenous people healthcare in this reality, identifying the Federal Government's measures and consequences driven by this circumstance.

METHODS

It is a narrative review that has a broad character and presents itself to discuss the development of the given theme, from a theoretical or contextual perspective, through analysis and interpretation of existing scientific production. This work's production was carried out in August, predominantly in the database of the National Library of Medicine, in which 17 results were found with the search descriptors in English: covid-19; indigenous people. Data obtained from the Planalto of the Presidency of the Republic of Legislation COVID-19 were used, in which there is a daily update of the normative acts on the pandemic and references of institutional websites.

RESULTS

Since January 2020, even before the World Health Organization (WHO) decreed a public health emergency, the HM, alongside SESAI, began to elaborate technical documents to guide indigenous people, health managers and collaborators on prevention and initial care measures in case of contamination by Coronavirus. Up to June 2020, SESAI had invested more than R\$ 70 million in coping actions, sending more than 600 thousand items to the 34 Special Indigenous Health Districts.(5)

The Brazilian Government declared a Public Health Emergency of National Importance (ESPIN) due to COVID-19, through Ordinance nº 188, from February 3, 2020. This measure established the Public Health Emergency Operations Center (COE-nCoV) as a national management mechanism in response to the pandemic. In addition, the Congress, through the enactment of Law No.

13,979, of February 6, 2020, provided ESPIN's measures to confront the coronavirus.(6)

According to the Informativo Saúde Indígena nº 2, from June 2020, SESAI attends almost 800 thousand indigenous villagers and promotes primary health care in the Brazilian territory. The Lei Arouca, nº 11,794/99, determines that this work must be carried out where this population resides, that is, in rural areas or in officially recognized Indigenous Lands.(5)

In relation to cases of contamination of indigenous peoples, the Brazil's Indigenous People Articulation (APIB) has been monitoring the progress of COVID-19 on a daily basis, according to the data presented by SESAI. Besides that, the National Committee for Indigenous Life and Memory has been analyzing data from the Municipal and State Health Departments, the Federal Public Ministry, APIB base organizations and the organized Covid-19 confrontation fronts in Brazil.(7)

It is important to emphasize that SESAI considers the diversity of traditional indigenous medicine as part of indigenous health, from the dialogue with village leaders the indigenous participation in the monitoring and evaluation of public health policies is guaranteed, through Local and District Indigenous' Health Councils.(5) It is noted that, despite advances in indigenous health care, Brazil and other Latin American countries still face many challenges, such as social vulnerability, marginalization and illegal exploitation of indigenous lands.(8)

DISCUSSION

The lifestyle of many indigenous peoples, based on collective housing and habit sharing of bowls, vessels and other utensils, favors the contagion by infectious diseases, such as COVID-19, in comparison to the contamination of people who live in the cities.(9)

In a general context, indigenous people are the ones who suffer the most in pandemics, such as the 2009 H1N1 influenza pandemic, which displayed, in Brazil, the fragility of indigenous people concerning respiratory tract illnesses.(8) In addition, Aborigines in central Australia experienced infection rates five times higher than the non-indigenous population.(2)

The pandemic has intensified challenges and vulnerabilities that already existed for indigenous peoples. As an example, the evasion of doctors from indigenous territories after the termination of the agreement between the More Doctors Program and the Government of Cuba, at the end of 2018. Such agreement assisted health clinics and partially allowed the overcome shortages of care to Rural, Forests and Water Populations (PCFA).(10,11)

Regarding mental health, one of the issues is the lack of specialized services aimed at this area during the pandemic. This is worrisome as, in addition to the problematic of mental disorders itself, racial and ethnic minorities are less likely than non-indigenous people to access mental health services and receive the demanded care.(12) Besides that, the restricted access to reliable information and the lack of health inputs, increases Indigenous People's fear and uncertainty about their own lives.(13)

Furthermore, the interruption of the cultural practices of indigenous peoples caused by epidemic crises, such as that of COVID-19, is harmful, given that the measures for the prevention and control of the pandemic were planned for a Western capitalist society, disregarding the peculiarities of indigenous peoples and the cultural determinants which have a positive impact on their health.(14) In this scenario, indigenous have had difficulties in balancing the restrictions of the coronavirus with the cultural obligations based on relations.(2)

As the infection of COVID-19 increases among indigenous communities, it will proportionately affect older people, who are the reservoirs of language and history. Their deaths represent an immeasurable cultural loss. Indigenous communities have a lot to teach about sustainable and community living at a time in which individualistic efforts seem to overcome care for the most vulnerable; to invest in their health is to invest in the future. Valuing the unique contribution of such communities requires that the goal is not simply that they survive this pandemic, but that they thrive after it.(15)

CONCLUSION

The advent of the COVID-19 pandemic has highlighted the inequality circumstances experienced by the world's population and increased the vulnerability that already existed among indigenous people. At a time when everyone seeks their homes as a safe place to protect themselves from contamination, indigenous people are confronted by the invasion of their "safe spaces", their territories, besides experiencing side effects on their lifestyle, based on the collective and community.

The pandemic is a collective adversity, which can be confronted jointly and with the community action-effort just as the links between science and political actions can be strengthened with intent of helping people in remote areas, such as indigenous communities. It is worth mentioning that the arrival of the virus merged other pre-existing vulnerability's factors, the lack of immunity to certain diseases and, mainly, the difficulty of access to health services in cases of urgency, as is the case with COVID-19.

It is noted that there are great challenges to guarantee the social distance demanded in these territories, but it is tangible that Funai and the healthcare teams that work in the Special Indigenous Health Districts (DSEIs) are fundamental strategic elements to fully act with the indigenous leaderships in confronting the obstacle, once it's actions take into consideration these peoples' culture and traditional knowledge.

The urgency of pursuing comprehensive healthcare aid to the community, with quality assurance, a robust disease surveillance system that integrates data on new illness outbreaks and expansion of innovation and essential products manufacturing, may be some of the most important requirements for preparation and response to the pandemic in indigenous health. It is clear that Brazilian Government has guaranteed and invested resources in attending thousands of indigenous people with plans to confront and prepare the teams in times of COVID-19.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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DEATH IS A DAY WORTH READING: BOOK CLUB AND DIGITAL INTERACTION IN PANDEMIC TIMES - AN EXPERIENCE REPORT

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Keywords: Social Isolation; Pandemics; Medicine in Literature.



INTRODUCTION

At the end of March, the coronavirus's pandemic context led to recommendations for social isolation by several world entities. In Brazil, the arrival of Covid-19 resulted in the shutdown of several universities and schools across the country, in addition to several preventive measures aimed at containing the rapid advance of the infection. With that, a concern with each individual's mental health arose during the isolation; in this context, the Clube Quarentena do Livro (CQL) was created, guaranteeing a distraction in a time of difficulty. After all, it is known that the experience of sharing readings is an enriching social process of connection between readers.(1)

It is also understood that Medicine, in search of professionals with humanistic, critical, and reflective training, must recognize broad visions that involve psychosocial and aesthetic concepts. Therefore, medical education should be concerned with training doctors prepared to deal with themselves and patients, working with historical and socio-cultural values.(2) In this sense, the CQL carried out entirely online for physical isolation, worked on themes related to the book "Death is a day that is worth living" by author Ana Claudia Quintana Arantes(3), as foundations of palliative care, thanatology, and empathy in the care process. Thus, this work aimed to report the organization and importance of CQL in a context of low social integration, in addition to stimulating discussions about literature and poetry regarded to Medical Education.

EXPERIENCE REPORT

In the context of the pandemic that shutdown the world in their homes and given the need to produce entertainment linked to knowledge and humanization,

the idea of CQL emerged, an event developed in 2 stages: reconciliation and consolidation.

For the first phase, spots were advertised on social media for a group in instant messaging and voice calls applications. In this, the participants were told that the book "Death is a day that is worth living" should be read between March 27 and April 11, 2020. Thus, all participants could simultaneously undergo the experiences that this reading provides. Questions submitted would be selected and asked to the author on the day of discussion. The demand requested a second group in the application with the same purpose and operation as the first.

At the end of the stipulated period, consolidation was promoted through discussion with the book's author. To control access to the meeting platform (FreeConferenceCall ©), participants had access to a data registration check-in. After that, there was a rich explanation by the author about death and dying seen from different angles such as guilt, fear, and mourning, in addition to why Thanatology is a taboo in today's society. As addressed, the problem would be the "misuse of life"; the deathbed would then be the "cradle of repentance" for people who go and stay. Besides, selected questions were answered in a space of intimacy and sharing of experiences, in which the author explained ways to help and deal with the suffering of the other, and answered questions about some chapters of the work in question, in addition to suggestions from other books on the topic.

Finally, a space for interaction was dedicated: compliments were given, and reports on changes in life perspectives after reading were shared. Meanwhile, in the platform chat, the participants shared different academic environment experiences related to Thanatology. Thus,

through verbal feedback, it was possible to observe a positive impact of the activity on the participants' lives. Finally, the checkout was completed to validate the presence of everyone.

REFLECTION

The moment reported in the context of social isolation, and the increasing levels of mortality in the country became important when mental health worsened among university students.(4) This is because an unusual interaction model was created, diverging from saturated lectures and seminars lacking demand, providing relief, and promoting active and entertaining discussion.

Although death is an issue implicit in the practice and training of health professionals, it is noted that the discussion on this topic during the university is focused on its technical aspects.(5) Consequently, medical students from several universities in the country are dissatisfied with how Thanatology is approached during graduation, given that their schools do not debate the topic or make it, implicitly, the result of incompetence or professional failure, which makes many students distant from this theme. The same happens with palliative care, which presents itself as an innovative form of assistance in the health area(6), and because it brings reflections about care in the last moments of a patient's life, they do not receive due attention from teachers and, therefore, from students.

In this context, the CQL, taking into account the great difficulty of debates on Thanatology and palliative care in medical schools, becomes a notorious activity since the action was aimed at opening discussions on these topics. Another positive point was the dissemination of actions in the format of book clubs in the Midwest region and, subsequently, throughout the country, with discussions on other scarce subjects in the medical educational background.

On the other hand, we realized that the action's duration acted as a negative point, limiting full participation and the development of in-depth discussions. Interesting points were the number of participants and carrying out the action online. This, therefore, due to the large scale of participants, not all were able to express themselves by shyness from the large group. In turn, the online performance can be seen negatively by many people from different locations and expanded the initiative with new actions that should be viewed positively.

CONCLUSION

The CQL was considered an open space for debate, providing sharing experiences associated with literature and leisure, besides positive learning for the participants' academic background. Finally, the Club could be

considered a tool to address the re-signification of human suffering and the humanization of students about death and dying, revealing its relevance, from which it seeks to carry out, in the future, a multicenter activity that involves new readings. Furthermore, it is considered that the present text is an observational approach based on subjective data; therefore, future productions of more detailed drawings are recommended.

CONFLICT OF INTEREST AND FUNDING

It is declared that there are no conflicts of interest between authors of this experience report. There were no expenses for carrying out the work.

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COMBATING FAKE NEWS: A NARRATIVE REVIEW ABOUT THE IMPORTANCE OF A RATIONAL FILTER FOR DISINFORMATION

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Keywords: Health Education; Pandemics; Communication;

INTRODUCTION

The word “plague” is derived from the Latin language and is used to designate any disease capable of causing high mortality and affecting a large number of people at the same time. In the 14th century, Europe was plagued by the bubonic plague pandemic, described by literature at the time as a “breath infection”, which not only contaminated anyone who spoke to those infected, but also whoever bought, touched or took something that belonged to them. In the meantime - specifically in 1348 - the Faculty of Paris recommended a series of prophylactic measures to combat the disease: use of chamomile flower incense in homes and public places, deprivation of baths, and reduced intake of fatty foods.(1) Centuries later, new pandemics would affect the world population

and, among them, the most recent one, once again, deeply impacted the knowledge previously established: the COVID-19 pandemic, unlike the bubonic plague, emerged in a period that lives with countless technological advances, but which still faces obstacles to consolidating science. Faced with the new Coronavirus and the pandemic scenario established, a range of quick news is evident every day, and amid so many, it is necessary to pay attention to the false ones, also known as “Fake News”.(2) Although the dissemination of quick news as initial insights into the disease has been beneficial for the world of research and for the prevention of the population, currently there is a need for caution and scientific rigor for the transmission of information. The general public was overwhelmed with information, and many of them, who do not inform, but deceive with their controversies and conspiracy theories regarding the origin of the virus, treatments and preventive measures, weakening the real science. The digital world applauds “speculated information” with speeches without

compromise with veracity - on one side is opinion, on the other is truth.(3) In this bias, health education for the population is necessary to combat disinformation, seeking to improve knowledge and better understand the measures taken to confront COVID-19.(4)

Through a narrative review of the literature, the present study seeks to discuss the implications of the COVID-19 pandemic in the search and interpretation of information, knowledge and explanatory data related to the disease. In addition, the importance of health education in the pandemic context is analyzed, in order to explore themes such as the negation of science and the advent of fake news in the epidemiological scenario of Coronavirus infection.

METHODS

The present study is a narrative review, using literature from 1987 to 2020, with a predominance of more recent works. The writing of the present narrative review and configuration of the results were divided into four sequential steps. In the first step, the subtopic “Fake news in health” was chosen, in order to broaden the discussion based on the central theme and to relate the main impasses of transmission and perception of health information in the face of the COVID-19 pandemic. Subsequently, in the second step, the research platforms to be carried out to search for references were established, these being PubMed and Scielo. In the third step, the search descriptors were determined, which are: “False Information”, “Health Education”, “COVID-19”, “Pandemics” - verified on the Decs platform. Finally, the last step consisted of executing the searches and the literature to be used was chosen based on 2 criteria(1) approach present in the title and² content of the abstract. The publications should deal with the central theme and / or the themes defined in the first step.

This last stage resulted in 12 articles, which were read and interpreted critically. References were chosen that addressed the medical and sociocultural perspective of health information and that left room for the discussion of current impasses, since the pandemic of COVID-19 infections. This study has limitations regarding the impossibility of replicating the methodology, since it was not systematized, and regarding the low number of bibliographies, due to the current nature of the theme.

RESULTS

The selected materials, according to the steps represented in the methodology, were classified according to table 1 and categorized by title, country, year of publication, source, type of publication and authors. Of these articles, 11 were published in Brazil and 1 in Ireland. 6 publications are from 2020, while 1 is from 2014, 1 from 2012, 1 from 2011, 1 from 2008, 1 from 1998 and 1 from 1987. Of all publications, 6 deal with the relationship between fake news, disinformation and the COVID-19 pandemic, 4 address the issue of health information and education, 1 analyzes the quality of health information on the internet and 1 discusses the history of pandemics and epidemics worldwide.

Thus, the results of searches for references allowed socio-cultural, informative and educational observations of health, linked to the perception and its links with the pandemic context.

DISCUSSION

In times of crisis, the media gain an essential role in active search for information, and in the context of growing doubts, uncertainties and anxiety, the dispute over false narratives and news is amplified through pseudoscience and the lack of official information.(5) Health indicators can be characterized as the motivating eyes for policy formulations for health care and, although they should be a government priority, there are still difficulties surrounding the production and quality of such data.(6) Through this panorama, it is possible to understand that, in addition to the obstacles already verified in the health-political sphere, there are also the imbrolios related to the populations relationship with the search for information about the COVID-19 pandemic. Health education actions in Brazil are considered to have started at the beginning of the 20th century, through health campaigns, even before the Brazilian had access to free and comprehensive medical care.(7) Since then, community awareness is still carried out through informative actions aimed at the broad public. Although such measures have abandoned their coercive character, the lack of collective agreement remains as a problem to

be analyzed, the extremes being related to the acquisition of informational data - its excess, on the one hand, and its lack, on the other - origin of apprehension among scientists and intellectuals. In this sense, it is known that, even though the mechanisms for disseminating information acquire greater technological complexity and amplify the amount of knowledge produced, these changes, by themselves, are unable to eliminate the qualitative disparities in the data transmitted.(8)

A considerable portion of the population seeks information about treatments and their health status and conditions on the internet - in the USA, most users seek explanatory data about diseases, but in Brazil, there are not enough studies to outline the characteristics of the search for information in the environment virtual, although this is also relevant.(9) The problem, therefore, lies in verifying the veracity of the elements found and adds to the scarcity of tools found to ascertain them. One of the instruments that can be used for this purpose is the Health On Net Foundation (HON) page, a non-governmental organization created in 1995, which, in spite of assessing the credibility of health sites and already have updates focused on COVID-19, does not have a version in portuguese, a factor that may hinder its use by the broad Brazilian public.

In a horizon of obstacles to the search for information by the population, health education assumes a primary role. Ensured by the Brazilian Constitution of 1988, health information is a fundamental right of the individual, considered, therefore, essential to the exercise of citizenship. The acquisition of explanations about health and illness is considered a process and requires the presence of a mediator: the health professional.(10) Consecutively, a reality marked by the uncontrolled contagion by COVID-19 and circumscribed by fear, ignorance and apprehension experienced by Brazilian population groups, seems to return a situation similar to that experienced during the black plague and emphasizes the need for accurate and accessible knowledge transmission. From the need to search for information, people end up trusting any news they find on social networks, without finding out the real source. The type of content that Fake News embraces, impresses those who find themselves in a difficult, confusing moment and in a scenario of fear and, thus, can end up directly and indirectly cause harm to people's lives.(11) The fight against disinformation must be carried out through reliable information, which comes directly from qualified health professionals who are prepared to deal with the receiving public. It is evident that false news is a disservice to society and combating it is essential for the well-being of the population and, therefore, it is necessary to warn about research in safe sources, about the criticality that

the citizen needs to have, in addition to it is essential to check the source and veracity of the news.

CONCLUSION

Health information is a fundamental right of the Brazilian citizen and education on the same subject, through reliable mediators, is essential to guarantee the credibility of such data. With the emergence of the COVID-19 infection and the new investigations undertaken by researchers, a race of rumors and conspiracy theories - anchored in geopolitical disputes, nationalism and xenophobia - began.(3) In this scenario, strengthening the bond of trust between health professionals and the population is necessary for the public to become more sensitive to the speeches regarding the confrontation of the pandemic, providing moments for reflection and production of meaning.(4)

In this way, it is clear that the fight against disinformation needs to be carried out through quality information, propagated after the qualification of health professionals,

also in social media. For this, it would be interesting to have dynamic and easily accessible documents available, aiming to attract different social groups and helping to reduce the spread of false news.(12) The guarantee of accessible tools for verifying the quality of information obtained by individuals on health and disease is also crucial, as one of the ways of confronting the asymmetry of knowledge in this area. The achievement of an individual "filter" capable of selecting credible data depends on a joint and targeted effort, prioritizing the fight against fake news and reactivated science negativism.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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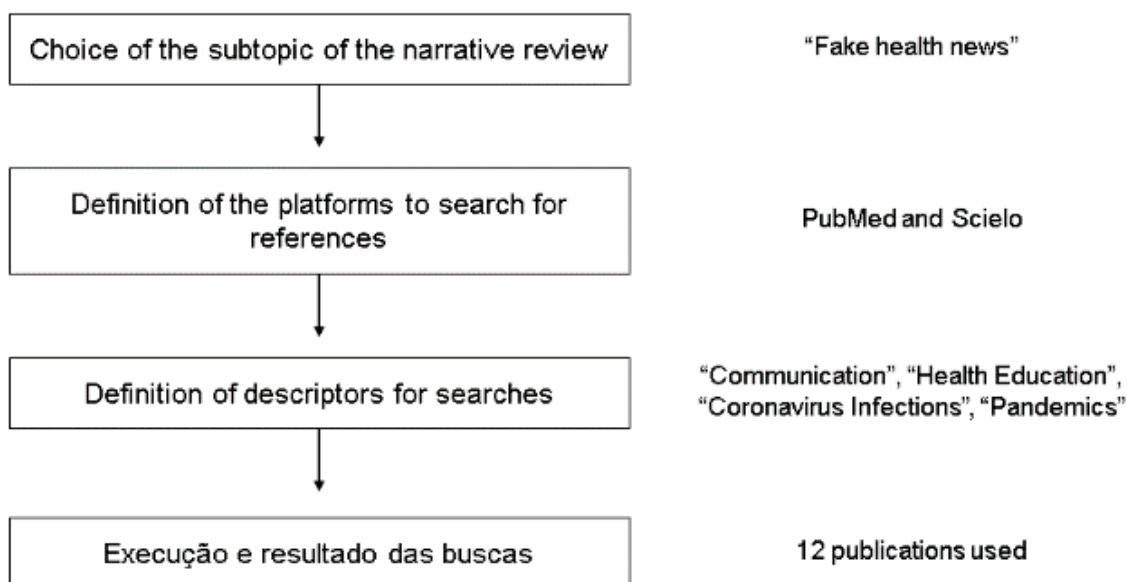


Figure 1. Flowchart: sequential steps of the narrative review methodology.

Source: Authors.

Title	Country	Year of publication	Periodical/source	Type of publication	Authors
Epidemics	Brazil	1987	Cadernos de Saúde Pública	Article	Rita de Cássia Barradas Barata
Fast News or fake news?	Ireland	2020	Science & Society	Article	Anthony King
Global public health emergency due to the COVID-19 pandemic: misinformation, information, asymmetry and discursive validation	Brazil	2020	Folha de Rosto	Article	Clóvis Ricardo Montenegro de Lima, Nancy Sánchez-Tarragó, Danielle Moraes, Luciana Grings e Mariangela Rebelo Maia
Light technologies and health education in coping with the COVID-19 pandemic	Brazil	2020	Preprint	Essay	Roger Flores Ceccon e Ione Jayce Ceola Schneider
COVID-19, fake news, and the sleep of communicative reason producing monsters: the narrative of risks and the risks of narratives	Brazil	2020	Cadernos de Saúde Pública	Article	Paulo R. Vasconcellos-Silva e Luis David Castiel
From data to politics: the importance of health information	Brazil	2008	Epidemia!	Editorial	Maria de Fátima Marinho de Souza
Understanding popular health education: A review of the Brazilian literature	Brazil	2011	Cadernos de Saúde Pública	Literary Review	Luciano Bezerra Gomes e Emerson Elias Merhy
Health Information: Challenges Continue	Brazil	1998	Ciência & Saúde Coletiva	Article	Ilara Hämmerli Sozzi de Moraes e Sílvia R. Fontoura Rangel dos Santos
Quality of internet information available to patients on portuguese pages	Brazil	2012	Revista Associação Médica Brasileira	Article	Adriana Del Giglio, Beatrice Abdala, Carolina Ogawa, Daniel Amado, Diego Carter, Fernanda Gomieiro, Fernanda Salama, Marina Shiroma e Auro del Giglio
Access to health information and comprehensive care: Perception of users of a public service	Brazil	2014	Interface Comunicação Saúde Educação	Article	Renata Antunes Figueiredo Leite, Emanuele Seicenti de Brito, Laís Mara Caetano da Silva, Pedro Fredemir Palha, Carla Aparecida Arena Ventura
From disinformation to Chaos: an analysis of Fake News in face of the Coronavirus pandemic (COVID-19) in Brazil	Brazil	2020	Cadernos de Prospecção – Salvador	Article	João Henriques de Sousa Júnior, Michele Raasch, João Coelho Soares, Leticia Virginia Henriques Alves de Sousa Ribeiro
Fake news in face of the COVID-19 pandemic	Brazil	2020	Revista Visa em Debate	Article	Rafael Christian de Matos

Table 1: Presentation of articles by title, country, year of publication, source, type of publication and authors.
Source: Authors.

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THE PRODUCTION OF PREGNANT WOMAN'S CARE IN TIMES OF COVID-19 PANDEMIC: A INTEGRATIVE REVIEW

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Keywords: Pregnancy; Prenatal Care; Coronavirus Infections.

INTRODUCTION

Brazil was responsible for 77% of worldwide pregnant and puerperal women's death of COVID-19 since the beginning of the pandemic until the 18th of June 2020.(1) Pregnancy is a special physiological condition with unique characteristics, having alterations on immunity and hormonal levels and also increased demand and partial pressure of oxygen, required for tolerate and support the placenta and fetus's development and survival in hostile environment maternal immunological system.(2,3) During the pregnancy, women are more seriously affected for pathogenic infections, particularly those caused by respiratory pathogens.(4)

For Covid-19 prophylaxis, the Pan American Health Organization (PAHO) recommends protective measures, such as washing your hands often with soap and water or hand sanitizer, covering your mouth with your forearm when you cough or sneeze, physical distance from 3 feet apart and the use of masks.(5) Furthermore, it is necessary for the adoption of preventive actions and specific conducts for pregnant woman's care, mainly in Brazil, so they can be assisted in the best way. In addition, this study aims to characterize the scientific production published of pregnancy during the pandemic and describe the main cares, as the health system organizations, prophylaxis, management and welfare, related to pregnant women in this period in Brazil and in the world.

METHODS

It is a integrative review realized by databases National Library of Medicine National Institutes of Health (PubMed) and Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS) and in virtual library Scientific Eletronic Library Online (SciELO) to answer the follow question: What are the cares during pregnancy in COVID-19 times? The search was realized by five trained

searchers, ensuring accuracy to the articles process of selection, using the standardized keywords and available in Descritores em Ciências da Saúde (DeCS): "gravidez", "cuidado pré-natal", "COVID-19", "Coronavirus Infections", "Prenatal Care", "pregnancy", "Embarazo", "Infecciones por Coronavirus" and "Atención Prenatal". The inclusion criteria were the full articles available online, from December 2019 to July 2020, in Portuguese, English and Spanish. The exclusion criteria were articles which were not available online, masters dissertation and doctoral thesis, opinion articles and editorials.

After that, the data collection instrument was created by authors containing relevant information like: article's title, authors' name, publication year, publication magazine, objectives, type of methodological approach, scientific evidence degrees, study location, mainly results and conclusion.

According to the established strategies, the keywords were associated in pares to be approximate to the scientific productions, those one that could contribute for the elucidation of introduced objective. Consequently, 552 articles were found about the issue, according to Table 1.

Right after, it was realized a full reading of all the material to identify those articles that were related to the research's question. Therefore, some have been excluded, resulting in 25 scientific articles which compose the potential bibliography.

The articles were classified according to the clinical evidence as follows: level 1, the evidence comes from systematic review or meta-analysis of all randomized controlled clinical trials or from clinics based on systematic reviews of randomized controlled clinical trials; level 2, derived evidences from at least one well-designed randomized controlled clinical trial; level 3, obtained evidences from well-designed clinical trials without

randomization; level 4, evidences from well-designed cohort and case-control studies; level 5, evidences from systematic review of descriptive and qualitative studies; level 6, evidences derived from a single descriptive or qualitative study; level 7, evidence from authorities' opinion and/or expert committee reports.(6)

RESULTS

For the proposed period, all found productions were published in 2020. As for the month of publication, prevailed the months april, may and july with 28% (n=7), 28% (n=7) and 24% (n=6), respectively. The articles were published in 16 diferentes magazines, being 60% (n=15) in americans magazines and just 12% (n=3) in brazilians magazines. Regarding the location of the main authors of the research, stand out the United States of America with 40% (n=10), being the others 12% (n=3) from Brazil, 12% (n=3) from Singapore, 12% (n=3) from China, 12% (n=3) from United Kingdom, 4% (n=1) from France, 4% (n=1) from Spain and 4% (n=1) from Italy. These data are important to feature in which months and places was found the higher production related to the theme. Regarding the approach to the production for pregnant women's care in times of Covid-19 pandemic, were observed that 52% (n=13) discussed health system organizations for pregnant women, 48% (n=12) care during pregnancy and 36% (n=9) about care related to the labor moment. The majority, 56% (n=14), it was from reviews, on the other hand the others were qualitative approach 32% (n=8) and quantitative approach 12% (n=3). About the evidence level, 64% (n=16) presented level 7, 8% (n=2) level 6, 4% (n=1) level 5 e 4% (n=1) level 4.

DISCUSSION

There are several new logistical organizations and workflow algorithms of health systems for pregnant women's care, in the prenatal phase, during the COVID-19 pandemic.(7) The articles mention very important implementations, such as the deployment of a drive-through care model, telehealth for high-risk pregnancies - which reduce the patient's anxiety resulting by the reduced number of her previously planned face-to-face clinical visits - people's flow control and clean techniques at the clinics - when presencial care becomes extremely necessary - and the management of chronic and specific diseases like diabetes and hypertension.(7-14) High-risk pregnancies have an eclampsia rate of 25 to 50%, in 50% of these cases, complications usually start before 37 weeks. Thus, more frequent prenatal visits are recommended for these women, even during a pandemic.(14)

Besides, the articles mention that the observation of screening process the pregnant woman (with risk

stratification), scheduling interspaced ultrasounds (with a 50% decrease in frequency by reviewing the protocols), training of health professionals and multidisciplinary care were essential for a correct direction of therapeutic conduct, a reduction in the number of presencial clinical visits (reaching 33% per patient, compared to traditional prenatal care) and, consequently, reduced risk of infection by pregnant women and staff. Corroborating this, it was recommended that transfers of pregnant women with COVID-19 between the infirmary, the operating room and the recovery room be cautious to avoid nosocomial dissemination.(8,11-19) However, the new ways of service organization also have limitations, such as the reluctance of pregnant women and visitors to answer screening questions, fearing isolation or hospitalization during childbirth, and pregnant women who do not possess a car, stable internet, sphygmomanometer or glucometer, for self-monitoring and telehealth.(8-10,13,14)

The articles recommend that pregnant women avoid presencial appointments, learning about the specific signs of COVID-19, and when they present mild or asymptomatic infection they should delay their consultations for 14 days.(14,20) The presencial ones can also be avoided by the decrease the risk of severe hypertension with the use of medication prophylaxis, such as low-dose aspirin, in women identified as being at high risk.(21) Pregnant women with diabetes must strictly follow social detachment measures, making only essentials ultrasounds, and, in case of hospitalization, they should be treated with steroids for fetal lung maturation as a priority if delivery is expected before 34 weeks.(10) Close monitoring of laboratory parameters, such as leucocyte count, as well image resources on sweeps computed tomography of the thorax, can be useful for the precocious prevention, diagnosis and treatment of Covid-19 infection during pregnancy.(22) As for the treatment of positive pregnant women, isolation is indicated, classification according to the risks and necessity determined by their clinical condition; adequate sleep, rest and nutrition; fluid and electrolyte ingestion monitoring; and oxygen therapy for hypoxemic pregnant women with frequent clinical reevaluation, a conservative fluid strategy when in acute respiratory failure and non-invasive positive pressure ventilation. If the respiratory status is deteriorated, after 28 weeks of gestation, it is recommended to proceed with a cesarean section delivery to avoid fetal distress.(4,19) It is indicated to apply low molecular weight heparin (LMWH) before and after delivery.(23) Vital signs, fetal heart rate and oxygen saturation levels should be monitored, as well as monitoring maternal temperature during labor and proper management if there is a fever.(18,20) It is

suggested to assess the risks and benefits of applying antiviral therapy for COVID-19, lopinavir and ritonavir.(24)

In the face of the new coronavirus pandemic, some recommendations on the management of childbirth are necessary to protect parturient women and health professionals. A systematic plan with respiratory precautions, pre-surgical hygiene and collection of laboratory tests is recommended.(11,15,25) Pregnant women diagnosed or suspected of having a coronavirus who already have delivery schedules should undergo a preoperative evaluation with a history and analysis of respiratory symptoms, although, the use of the stethoscope should be avoided, with emphasis on pulmonary ultrasound at the bedside for avoid cross-contamination.(18) When delivery is not planned, this assessment is also necessary and should aim at pain control and safety measures against infection.(11) This initial consideration should include platelet count due to the risk of thrombocytopenia, regardless of the infection's severity.(18,19)

Obstetric and clinical urgency factors should guide the type of delivery, with cesarean section indicated in the emergency, as well as neuraxial anesthesia to avoid the risks of aerosolization associated with intubation and extubation.(16,18) Regarding natural delivery, an analysis of 13 newborns revealed the absence of maternal virus transfer to their children during birth, so, vaginal delivery is not contraindicated in patients with COVID-19.(16) Despite this, late clamping of the umbilical cord and skin-to-skin contact should be avoided, and neonates isolation is indicated for 14 days.(26-28) It is also suggested that natural childbirth without medication should not be discouraged, and the early application of epidural is desirable, as pain can exacerbate respiratory symptoms and cause viral spread.(19)

Qualified care is a pregnant woman's right through the health care network, whose arrangements must guarantee access, integrality and humanization - having the right to a companion of her choice during labor. But, in the context of the pandemic, it might be more difficult for your choices to be accepted and respected by health services and professionals. The guarantee and empowerment of those significantly improve, even if indirectly, the care for pregnant women.(29)

A study of 31 women - pregnant women or women up to 6 months postpartum - was conducted to better understand the effects on health and well-being during a pandemic, as well as sources of resilience, among women in this period. Nearly 12% of the sample reported depression and 60% moderate or severe anxiety. Some benefits of isolation were highlighted by the interviewees, such as greater connection and bond with their family units and the possibility of working at home, which

allowed more time for self-care, improving physical and mental health. Yet, the weight of the uncertainty related to healthcare services and risk exposure were stressing points for them, including a lack of knowledge about early exposure. Bridging, also, care related to the mitigation of mood disorders in the prenatal and perinatal phases and promotion of resilience, through screening for depression and anxiety, also providing behavioral recommendations for active coping during prenatal consultations and postpartum.(30)

However, as Covid-19 an emerging disease, beyond the aforementioned limitations findings, few studies were found directly with sick pregnant women and professionals who provided care to these patients. Regarding the restrictions of this work, due to the use of only three databases, some relevant studies may not have been found. Jointly, no high-level evidence studies were found.

Keywords	Number of articles per database/virtual library			Total
	PubMed	SciELO	LILACS	
"gravidez" AND "COVID-19"	2	9	20	31
"cuidado pré-natal" AND "COVID-19"	0	1	9	10
"coronavirus infections" AND "prenatal care"	22	1	9	32
"coronavirus infections" AND "pregnancy"	391	2	16	409
"embarazo" AND "infecciones por coronavirus"	1	2	19	22
"infecciones por coronavirus" AND "atención prenatal"	0	1	9	10
"cuidado pré-natal" AND "COVID-19" AND "gravidez"	0	1	0	1
"coronavirus infections" AND "pregnancy" AND "prenatal care"	21	1	6	28
"infecciones por coronavirus" AND "atención prenatal" AND "embarazo"	1	1	7	9
Total	438	19	95	552

Table 1 - Scientific productions found per databases/virtual library with keywords associated in pairs.

CONCLUSION

Being pregnant women one of the most severely affected and vulnerable groups to the covid-19, alterations in organizations and workflow algorithms of health systems to their treatment during the pandemic, as well as specific care before and during labor, were essential. For instance, assistance in drive-through, telehealth, people's flow control, management of chronic diseases, risk stratification, professionals' training, resilience's promotion and learning about the signs of COVID-19. Despite the limitations related to the new care models, there is an infection's risk reduction for the pregnant women. About future perspectives in this theme's research sphere, there is a necessity for studies with higher evidence level. Besides that, there is no consensus regarding the drugs use for Covid-19 treatment in

pregnant women, further studies are essential to elucidate this issue.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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ASSOCIATION BETWEEN HEADACHE CRISES AND EXPOSURE PERIOD TO INFORMATION AND COMMUNICATION TECHNOLOGIES: AN INTEGRATIVE

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Keywords: Migraine Disorders; Tension-type headache; Smartphone; Internet.

INTRODUCTION

COVID-19, whose acronym stands for coronavirus disease 2019, is an infectious disease caused by SARS-CoV-2 that presents a wide spectrum of clinical manifestations ranging from asymptomatic presentations to severe conditions. The pathological agent belongs to the Coronaviridae family, which is composed of an extensive variety of viruses. SARS-CoV, was first identified in 2002 and was responsible for the Severe Acute Respiratory Syndrome (SARS) that has caused hundreds of people to die in China. In 2012, the MERS-CoV - transmitted by dromedaries to humans - caused the outbreak of Middle East Respiratory Syndrome (MERS) in Saudi Arabia, United Arab Emirates, among other countries. The new strain of coronavirus has been identified in humans in the city of Wuhan, Hubei province, in the People's Republic of China and has generated an outbreak that has spread worldwide.(1)

This reality was the basis for political authorities to adopt measures of social distance, as a preventive way to control the intensive dissemination of COVID-19.(2) This new condition required the population to remain at home (except for emergencies, health problems or essential services), which contributed to information and communication technologies (ICTs) - such as computers, cell phones and tablets - becoming the main means of interaction, work and study.(3) However, this method changed the scope of psychosocial behavior of these individuals, causing anxiety, fear, depression and other comorbidities, including headache.(4)

Headache is a condition characterized by pain due to inflammation, irritation, traction, destruction or displacement of structures sensitive to pain. It is estimated that during life 93% of males and 99% of females will have at least one episode of the condition. Headaches are classified according to their etiology, the primary ones without identifiable organic substrate and

the secondary ones with their cause demonstrable by usual clinical or laboratory tests. Among the primary ones, tension type is the most prevalent, followed by migraine.(5) Regarding the precipitating factors of crises, long periods of exposure to digital devices are included.(6) Therefore, it is necessary to analyze the impacts on public health in relation to the increase in headache attacks in young people associated with increased frequency of use of electronic devices.

METHODS

The integrative literature review included the following steps for its elaboration: identification of the theme and establishment of the guiding question; definition of inclusion and exclusion criteria for articles; definition of the information to be extracted; analysis of selected studies; interpretation of results and presentation of the synthesis of the knowledge produced.(7)

To guide the study, the PICOT-D strategy (English acronym for population, intervention, context, outcome, time and study design) was used, which served as a basis to formulate the following question: is there a relationship between the increase in headache in young people due to the increased frequency of exposure to ICTs caused by changing habits in the face of the pandemic of COVID-19? In it, the first element (P) is young; the second (I) increase in the frequency of exposure to ICTs; the fourth (O) the increase in headache attacks; the fifth (T) pandemic of COVID-19; and the sixth (D) cross-sectional studies and cohort studies. It is important to mention that not all elements of the PICOT-D strategy are used in this review, since the third element was not used.(8)

The databases used to produce the articles were: Latin American Literature in Health Sciences (LILACS), Medical Literature Analysis and Retrieval System Online (MEDLINE), Bibliographic Index Español en Ciencias de la Salud (IBECS).

TABLE 1- Bibliographic searches in the databases.

References Obtained	Databases					
	LILACS		MEDLINE		IBECS	
	Selected References for Review	References Obtained	Selected References for Review	References Obtained	Selected References for Review	References Obtained
Headache AND Information Technology	1	1	7	1	0	0
Migraine disorders AND Information Technology	1	0	10	0	0	0
Migraine disorders AND Computers	1	0	6	1	0	0
Migraine disorders AND Computers AND NOT Review	0	0	7	0	0	0
Tension-Type Headache AND Computers	1	0	3	0	0	0
Smartphone AND Migraine disorders AND NOT Review	0	0	22	1	0	0
Smartphone AND Adolescent AND Internet AND NOT Review	2	0	177	1	3	0
TOTAL	6	1	232	4	3	0

To search for evidence that answered the hypothesis, the following descriptors were used: "headache", "information technology", "migraine", "computer", "internet", "smartphone", "migraine disorders", "adolescent", "tension-type headache", "review". Subsequently, the descriptors were combined in pairs or trios using the Boolean operators "AND" and "AND NOT".

The inclusion criteria used in this integrative review were: articles published in English, Portuguese or Spanish, with abstracts available in the selected databases, in the period 2015-2020. Regarding the exclusion criteria, the following were admitted: expert opinion, editorials, patents, book chapters and literature reviews. Thus, 241 eligible articles were obtained and proceeded to analyze the titles and abstracts.

After the critical evaluation, 5 articles classified as level IV of evidence, as recommended by Stetler et al.,(9) were read in full and selected for categorization, investigation and synthesis.

RESULTS

Table 1 shows the bibliographic searches in the databases. MEDLINE presented 232 results which, after

analyzing the adequacy of the theme, were reduced to 4 articles (80%). The consultation held at LILACS generated 6 literature, of which only one was framed for review. The IBECS search resulted in 3 articles in which none corresponded to the pre-established parameters.

The synthesis of the results obtained is systematized in table 2, containing information regarding the title, authorship, year and country, database, outline, objective and outcome.

Among the five selected articles, the predominant language was English, which was present in 4 (80%), followed by Portuguese with 1 (20%). The analyzed studies were developed in 5 countries: Brazil, Turkey, China, South Korea and France. In relation to the period of publication, it was revealed that in 2020 there was a greater number of studies published on the subject investigated, totaling 3 articles (60%).

The predominance of designs among the articles analyzed was a cross-sectional study that corresponds to 4 (80%), whereas a cohort study represented 1 (20%). In general, the objectives of the studies analyzed included investigating the relationship between headache and the

TABLE 2- Presentation of the synthesis of articles included in the integrative review.

Title	Authors	Year / Country	Database	Study Design	Objective	Conclusion
Primary headaches among adolescents and their association with excessive computer use(13)	Saueressig IB, Xavier MKA, Oliveira VMA, Pitangui ACR, Araújo RC	2015, Brazil	LIACS	Cross-sectional study	Check the association between primary headaches and excessive computer use	It was observed that excessive computer use by adolescents is among the risk factors for the development of headache, with migraine being the most prevalent.
Effects of smartphone overuse on headache, sleep and quality of life in migraine patients(14)	Demir Y, Sümer M	2019, Turkey	MEDLINE	Cross-sectional study in a single center	To investigate the relationship between smartphone overuse and migraine headache, daytime sleepiness, quality of sleep and life.	It was found that sleep quality, quality of life, daytime habits and migraine headache are negatively impacted by overuse of smartphones.
Prevalence of primary headache disorders among information technology staff in China: the negative effects of computer use and other correlative factors(15)	Li C, Zhang L, Zhou J, Fan Z, Wang Y, Wang X, et al.	2020, China	MEDLINE	Cross-sectional study	Investigate the prevalence of primary headache disorders among the information technology team and identify the potential factors that contribute to it	Long-term exposure to screens offers a high risk for the development of headache (mainly tension type).
Screen time exposure and reporting of headaches in young adults: A cross-sectional study(16)	Montagni I, Guichard E, Carpenet C, Tzourio C, Kurth T.	2020, France	MEDLINE	Prospective cohort study	To evaluate the association between the time of exposure to screens and the risk of developing different types of headache in university students	It was observed that the increasing levels of exposure to screens are associated with increased reports of migraine - mainly in participants with migraine without aura - among university students. There were no associations between
Associations of personality and clinical characteristics with excessive Internet and smartphone use in adolescents: A structural equation modeling approach(17)	Jeong B, Lee JY, Kim BM, Park E, Kwon JG, Kim DJ, et al	2020, South Korea	MEDLINE	Structural equation modeling	To analyze the association between excessive use of smartphones and the internet and personality changes, development of psychiatric disorders and other health problems.	It was shown that adolescents who used smartphone and internet excessively were susceptible to; behavioral changes such as expressions of anger and aggression; and other health problems like headache.

Source: Own elaboration

use of information and communication technologies for long periods. It was observed that 4 (80%) of the studies found the excessive use of ICTs as a risk factor for the development of headache, while 1 study (20%) in patients with migraine correlates the excessive exposure of ICTs with the increase in frequency and crisis duration.

DISCUSSION

The change in habits, due to the social distance measures adopted with the pandemic of the new coronavirus, triggered an increase in the time of exposure to information and communication technologies. This new context signals the relevance of researches directed to this reality.

It was found, through the selected literature, that the excessive use of smartphones affects the quality of sleep. This, according to Park et al.(10) is associated with the prevalence of primary headaches in young people, as well as stress, fatigue, hormonal changes and climate changes.

Moreover, it is known that there is a predominance of migraine and tension headaches in female individuals.(5) In line with this, the study showed that, especially in women, the use of computers is evaluated as a risk factor for the development of headache.

Among the evidence analyzed, one of them associated the use of ICTs with the development of migraine, but found no relationship between such exposure with other types of headache. In contrast, a study demonstrated that the use of a computer was a significant factor related, predominantly, to the onset of tension headache attacks. However, according to Oksanen et al.(11) the frequent use of the computer is linked to the development of both types of headache.

Thus, the need to expand this discussion and develop further studies related to the theme is emphasized, since the scarcity of scientific productions on the issue was found as a limiting factor.

CONCLUSION

Therefore, there is evidence of level IV evidence associating the long period of exposure to information and communication technologies as a risk factor for the development and aggravation of headache in young people, whether of the tension type or of the type.(11) In short, the relevance of the information mentioned above is perceived for the field of Health Sciences, in view of its role in promoting the health and quality of life of individuals.(12) It is expected that this study can stimulate further research on this topic of great impact on public

health - encompassing other age groups such as children and the elderly - in view of the lack of methodological studies with a higher level of evidence, which implies the limitation of current literature.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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MANAGEMENT OF POSTMENOPAUSAL WOMEN WITH OSTEOPOROSIS IN THE PANDEMIC OF COVID-19: AN INTEGRATIVE REVIEW

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Keywords: Osteoporosis; COVID-19; Coronavirus infections.

INTRODUCTION

The World Health Organization (WHO) defines osteoporosis as a “condition in which bone mineral density is equal to or less than 2.5 standard deviations below the peak bone mass found in young adults”(1) and it is characterized by weakening and predisposition to fractures due to the progressive loss of bone mass.

Osteoporosis is a global public health problem, being the seventh most common disease in the world. It is a chronic disease that seriously affects the health of the elderly(2) causing morbidity and loss of functional independence. Annually, about 740,000 people die because of a hip fracture - an injury characteristic of osteoporosis - an event that has a mortality rate of up to 20% within 1 year.(3)

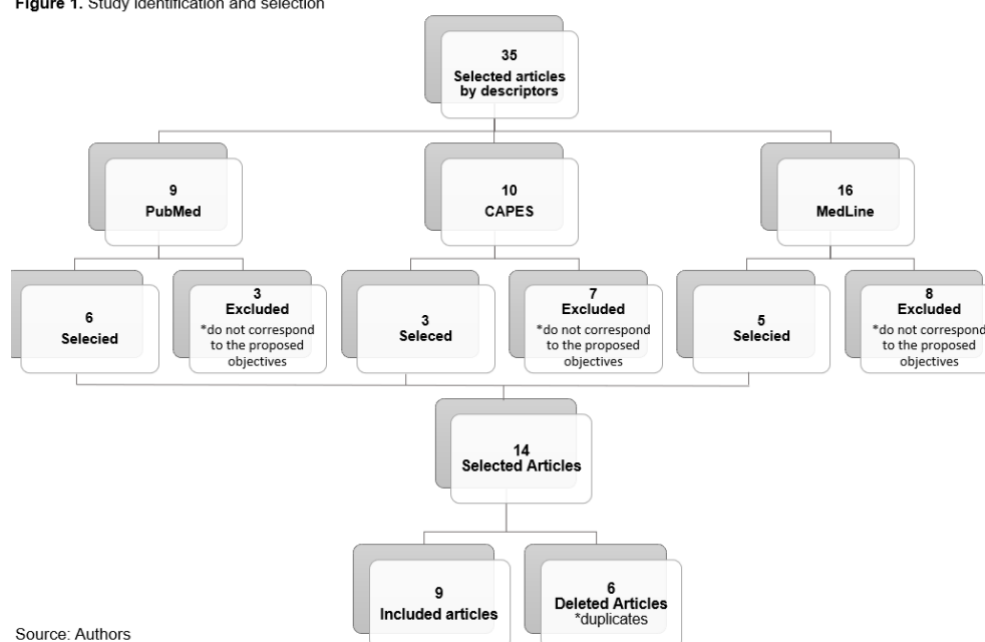
Osteoporosis patients need long-term medication, treatment and intermittent follow-up(2), which conflicts

with the current Sars-CoV-2 pandemic. During this coronavirus crisis, resources were reallocated to essential services. Clinical services, designed to prevent morbidity and improve functional independence, have been reduced and even paralyzed for months.

In this context, many health professionals have doubts about how to proceed the treatment and management of their patients, since they are predominantly elderly (at-risk group). These doubts are the result of scarce literature resulting from the lack of attention to this topic. This integrative review aims to analyze and compare therapeutic approaches and recommendations for postmenopausal women with osteoporosis (before and during the COVID-19 pandemic), synthesizing the most current recommendations from medical associations, clinical studies, observational studies and expert opinions to guide the treatment of affected patients.

METHODS

Figure 1. Study identification and selection



Source: Authors

Table 1. General characteristics of included studies

Author	Title	Type of publication	Date of publishing	Review
C. M. GIRGIS & R. J. CLIFTON-BLIGH	Osteoporosis in the age of COVID-19	Review article	2020 Apr	Osteoporosis International
GITTOES N J, et al.	ENDOCRINOLOGY IN THE TIME OF COVID-19: Management of calcium metabolic disorders and osteoporosis	Clinical practice guidance	2020 Apr	European Journal of Endocrinology
PAL R, BHADADA S K	Managing common endocrine disorders amid COVID-19 pandemic	Clinical practice guidance	2020 May	Diabetes and Metabolic Syndrome Clinical Research and Reviews
PASKINS Z, et al	Identifying and managing osteoporosis before and after COVID-19: rise of the remote consultation?	Review article	2020 Jun	Osteoporosis International
HOFBAUER L C, et al	Scientific Editing in the COVID-19 Era-Personal Vignettes from the JBMR Editors	Experience Report	2020 May	Journal of Bone and Mineral Research
ZOU J, et al	Standardized out-patient diagnosis and treatment process for osteoporosis clinics during the COVID-19 pandemic	Clinical practice guidance	2020 Apr	European Review for Medical and Pharmacological Sciences
WONJUN J, HUH K, KANG M, et al	Effect of Underlying Comorbidities on the Infection and Severity of COVID-19 in Korea: a Nationwide Case-Control Study.	Article (case-control study)	2020 Jun	Journal of Korean Medical Science
YU E W, et al	Osteoporosis Management in the Era of COVID-19	Clinical practice guidance	2020 May	Journal of Bone and Mineral Research
UPADHYAYA G V, et al	Challenges and strategies in management of osteoporosis and fragility fracture care during COVID-19 pandemic	Review article	2020 Jun	Journal of Orthopaedics

Source: Authors

A comprehensive review of the literature was carried out to seek guidance about treatment for patients with osteoporosis during this period of the COVID-19 pandemic. The selection of articles was carried out using the databases periodic Capes, MEDLINE and PubMed in search of works corresponding to the descriptors "osteoporosis" and "COVID-19" or "osteoporosis" and "coronavirus infection", aiming to answer the following question: How should postmenopausal women with osteoporosis be managed during the COVID-19 pandemic? The search found a total of 35 articles from 2019 January to 2020 July, which 9 were selected (Figure 1).

Included works in full-text and free full-text; in all study designs written in Portuguese, English, or Spanish; articles that treat osteoporosis in postmenopausal women.

The exclusion criteria were the date of publication of the studies, excluding those prior to 2019, because it is not about the new coronavirus, duplicate articles and articles that dealt with women with secondary osteoporosis and men osteoporosis.

RESULTS

From the selected articles, it was found that 44.4% of the works are guidelines for health professionals, which aim to provide information on the importance of osteoporosis treatment and guidance on how to proceed during the COVID-19 pandemic; 33.3% are literature reviews that approach the facilities and challenges for the

identification and treatment of osteoporosis through telemedicine and drug guidelines; 11.1% are case-control studies that evaluated the risk of SARS-VOC-2 infection associated with the presence of comorbidities and 11.1% are reports of experiences that describe the reality of several researchers who had to adapt their research activities due to social isolation (Table 1). Given the difficulty of carrying out work during the pandemic, no clinical or observational studies were found with large populations.

The main challenges in managing patients with osteoporosis during the pandemic are related to social isolation, which hindered the diagnosis and treatment of new patients and the maintenance of drug therapy, also aggravated by the transfer of resources from non-urgent to essential health services against SARS-COV-2.

The literature presented telemedicine as the main alternative to social isolation, which, in the treatment of diseases such as osteoporosis, presents efficiency like face-to-face care⁴. In making new diagnoses, it was recommended to use tools that do not require bone mineral densitometry (BMD), such as the FRAX fracture risk analysis tool (Fracture Risk Assessment Tool), and a detailed analysis of the clinical history. In addition, physicians were recommended to reinforce the importance of food and healthy living habits and, if necessary, therapeutic measures explained in Table 2.

DISCUSSION

In view of the current pandemic crisis of COVID-19, it was necessary to create alternatives for face-to-face care in

Table 2. Summary of therapeutic guidelines analyzed in this integrative review

Medication	Guidelines
Vitamin D	<ul style="list-style-type: none"> - Continuous supplementation - Guide on the importance of sun exposure
Calcium	<ul style="list-style-type: none"> - Continuous supplementation - Guide on the importance of a diet rich in calcium
Teriparatide (subcutaneous)	<ul style="list-style-type: none"> - Do not start new treatments during the pandemic - Treatment can be paused for up to 3 months. In higher periods, the temporary transition to oral bisphosphonates should be considered
Abaloparatide (subcutaneous)	<ul style="list-style-type: none"> - Do not start new treatments during the pandemic - Treatment can be paused for up to 3 months. In higher periods, the temporary transition to oral bisphosphonates should be considered
Romosozumab (subcutaneous)	<ul style="list-style-type: none"> - Do not start new treatments during the pandemic - Treatment can be paused for up to 3 months. In higher periods, the temporary transition to oral bisphosphonates should be considered - Consider permanent transition to oral bisphosphonates in patients treated for more than 6 months
Zoledronic acid (endovenous)	<ul style="list-style-type: none"> - Do not start new treatments during the pandemic - Postpone next drug application until the end of the COVID-19 pandemic - Consider provisional treatment with oral bisphosphonate after 12 months of pause
Denosumab (subcutaneous)	<ul style="list-style-type: none"> - Treatment should not be discontinued - Apply doses up to 4 weeks late - Supplementation with 25,000 to 50,000 IU of vitamin D with each application - Dismiss, if impracticable, pre-blood tests
Oral bisphosphonate	<ul style="list-style-type: none"> - Treatment should not be discontinued

Source: Authors

order to avoid crowding and compensate for the reduction of non-urgent clinical services resources which are necessary for prevention and treatment of morbidities and improvement of functional independence.(3) In this sense, the guidelines are for these services to be provided remotely, leading to experimentation and adoption of health care technologies that have not been used until then.(3)

This measure is applicable to osteoporosis services since remote visits for the analysis of chronic diseases, in which physical examination is not necessary, presented health results like those of face-to-face visits.(4)

In another analysis, video consultations resulted in fewer medication errors, greater diagnostic and decision-making accuracy when compared to telephone consultations. However, for practical and logistical reasons it is recommended to use video to complement, rather than replace, telephone consultations, since videoconferences may require training of doctors and patients and personal technical support.(4)

The main benefits associated with telemedicine are the elimination of aerial infections transmissions risk, reduction of costs for medical assistance, reduction of waiting times and flexibility of schedules. The possible negative points include the anxiety of the clinician and the patient due to insufficient training, medico-legal

vulnerability, data security and the very access to technology and means of communication.(4)

Doctors need to be aware of limitations and must not stop diagnosing people at risk or those with fractures⁵. Among these limitations, it is recommended to interrupt the elective imaging procedures, among them, the bone mineral density test (BMD), a tool that helps in the identification of patients at high risk of fractures.(6)

The alternatives to the BMD exam are: the use of clinical forecasting tools, such as FRAX, that do not depend on densitometry assessments(3,5-7); use of simple radiographs, when available, to identify fractures related to osteoporosis – such as fracture of the spine, pelvis, distal radius, proximal femur and humerus – which depends on a detailed analysis of the clinical history.(5)

Another challenge encountered by healthcare professionals is to maintain continuous treatment of patients with intravenous drugs. When continued treatment with intravenous bisphosphonate is not feasible, it can be discontinued for six to nine months without harmful effect(8), since it has a persistent anti-resorptive effect⁶. Because patients undergoing treatment may have symptoms such as flu symptoms and, consequently, those produced by COVID-19, it is essential that they are carefully oriented.(3,8)

Any new patients should not be started with an infusion of zoledronic acid, teriparatide, romosozumab or abaloparatide during the COVID-19 pandemic, because they also have side effects like flu-like symptoms⁹. Patients already on zoledronic acid treatment should postpone the next infusion until the end of the pandemic.⁽⁹⁾ This is only possible because the last infusion of this medication provides protection for more than 12 months and, if necessary, bisphosphonate should be considered as a provisional treatment.⁽⁹⁾

Patients using teriparatide, abaloparatide or romosozumab should continue with the planned therapy or pause the treatment for up to 2 or 3 months without therapeutic damage occurring. ^(5,6,8,9) If the pause exceeds this period, a temporary transition to oral bisphosphonates should be considered.^(5,6) In patients treated for more than 6 months with romosozumab, a permanent transition can be considered.⁽⁶⁾

In the case of treatment with denosumab, discontinuation should be strongly discouraged by the physician^(3,5,6,8,9), due to evidence that delayed treatment causes a rebound effect, generating rapid bone loss within 1 year, increasing the risk of developing multiple vertebral fractures.⁽⁶⁾ Therefore, people using this medication should receive the next dose within 4 weeks together with empirical treatment of vitamin D supplementation (25,000 to 50,000 IU) and pre-injection blood tests can be dispensed with.⁽⁸⁾

Patients or caregivers who are willing to self-administer the subcutaneous injection should receive training and preparation by phone or video,^(5,8,9) thus avoiding exposure to COVID-19 in health centers, however, physicians should be aware of the history and risk of hypersensitivity reactions.⁽⁶⁾ An alternative is to plan home visits by health personnel to administer medication.⁽⁵⁾

When it is not possible to continue treatment with denosumab within seven months of the most recent injection, a temporary transition with an oral bisphosphonate, such as weekly alendronate, is recommended. This recommendation is based on evidence, found in randomized studies, that the use of oral alendronate can provide protection against the rebound effect caused by discontinuation of treatment. However, this alternative has not been shown to be highly effective in patients treated for more than 2 years with denosumab.⁽⁶⁾

In all cases, the physician should advise on the importance of continuous supplementation of calcium and vitamin D^(5,8,9), as well as the regular practice of physical exercises, respecting the restrictions imposed by the social distance measures.^(3,5,8,9) In addition, guidance

should also be given on the importance of healthy lifestyle measures, since during this period of isolation, many patients are tempted to return to old habits.⁽⁹⁾

The discussion of this review was based on the most used drugs and the main medical guidelines. The lack of information on medications less common in the treatment of osteoporosis can bring risks to patients, such as raloxifene, which is associated with a threefold increase in the risk of venous thromboembolism⁽¹⁰⁾, which may increase mortality from the new coronavirus, because "almost 20% of patients with COVID-19 have severe coagulation abnormalities"⁽¹¹⁾. The scarce literature about COVID-19 and its implications for patients with osteoporosis, added to the low level of scientific evidence, limit a better discussion on the subject and, consequently, a more comprehensive approach to those people.

CONCLUSION

Osteoporosis, being a global health problem that needs continuous treatment, raises doubts among health professionals about the management of patients and adaptations in treatment in the face of the challenges imposed by the current pandemic of COVID-19.

Pending further studies with a higher level of scientific evidence - such as randomized clinical trials, systematic reviews and meta-analysis studies - for a better understanding of therapeutic changes and the impact of telemedicine, it is expected that this review will resolve the main doubts and provide alternatives to greatest difficulties encountered. Therefore, based on the data and guidelines available so far, it is recommended to continue therapy, preferably through telemedicine, individualized medical advice, continuous supplementation of calcium and vitamin D, in addition to reinforcing guidelines on diet and healthy lifestyle habits.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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FACE SHIELD PROTOTYPE FOR FRONTLINE HEALTH PROFESSIONALS IN THE FIGHT AGAINST COVID-19

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Keywords: Personal Protective Equipment; Pandemics; Solidarity.

INTRODUCTION

In March 2020, the World Health Organization declared coronavirus disease 2019 (COVID-19) a pandemic.(1) Due to its high infectivity, added to the momentary shortage of Personal Protective Equipment (PPE) and occupational exposure, health professionals are responsible for a significant proportion of infections.(2) Therefore, due to concerns about the health and well-being of professionals, who maintain the necessary workforce to fight COVID-19, actions were taken to assemble homemade PPE or “MacGyvered” solutions. Angus “Mac” MacGyver is one of the most famous fictional character of modern pop culture. In the original TV show, which was aired from 1985 to 1992, MacGyver routinely overcame apparently unsolvable problems on time pressure with nothing but promptly available items, good judgment and scientific insight. There are many “MacGyvering” examples connected to health, in which available materials are combined to replace unavailable equipments.(3,4) In this context, with the sporadic availability of facial protectors during the months of March to April in the state of Pará, academics with suspended classes and volunteers from “Amor em Foco”, a philanthropic group from Pará, developed a prototype face shield for health professionals. Thus, the objective of this study was to develop a low-cost face shield model, with a high protection coefficient, that would follow the requirements of National Health Surveillance Agency (ANVISA) Resolution No. 356 and that could be donated in large quantities to health services of the State of Pará.

METHODS

This is a technological development project, which exempts approval on Ethical Research Committee (CEP).

To make the proposed prototype, the following materials were needed: acetate sheet with a minimum thickness of 0.5 mm⁵; d33 foam with a 3 cm thickness; elastic with a 15 mm to 20 mm length. Also used in the confection: ruler, pen, scissors, cutter knife and hole punch to assist in the process.

For preparation, the following steps were followed:

1) Fabrication of the front display: the acetate sheet is usually sold with dimensions of 120 cm long by 62 cm wide. With a ruler, pen and scissors, divide the length into 5 equal parts of 24 cm and the width into two parts of 31 cm, totaling 10 rectangles of 24x31 cm each. The important thing is that the parts respect the minimum dimensions of 24 cm by 24 cm.(5)

After cutting the acetate sheet in 10 smaller and equal rectangles, you must remove the sharp edges from the lower margin of the prototype, because the face protectors cannot maintain protrusions, sharp edges, or any type of defect that can cause discomfort or accident to the user during use.(5) For that, any circular object or even a mold crafted with a sheet of paper can be used. After that, the front display will be ready.

Figure 1 - Acetate cutting process until reaching the final face shield display



Source: authors (2020)

2) Foam and elastic: again using a ruler and pen, the d33 foam should be marked in rectangles 30 cm long by 3 cm wide, the thickness being already 3 cm. As many markings as possible should be made, making the most of the foam piece. The cuts of the drawn rectangles must be made with a cutter knife, this tool cuts with precision and agility. To finish the face of the foam that will be in contact with the user's face, triangular cuts should be made at both ends with the aid of scissors or cutter knife, positioning them diagonally, which will provide greater protection on the sides, in addition to facilitating the subsequent passage of the rubber bands. That done, the foam will be ready. As for the elastic, the prototype will take 2 strips, which should be between 25 and 30 cm in length each.

Figure 2 - Marking and cutting the foam until the end of the strip



Source: authors (2020)

3) Fabrication of the prototype: to join the parts of the prototype (front display, foam and elastic pair), 2 holes should be drilled in the foam and also 2 holes in the display, following the direction of the foam holes for the passage of the elastics and, therefore, union of the parties. It is recommended that such holes should be made with a hole punch, because the cutter knife may break the acetate structure. In addition, the hole punch allows greater agility and precision for this step.

With the hole punch, 1 hole should be drilled at each end of the foam, respecting a distance of about 2 cm from the side margin, preventing the foam from breaking. This should also be done with the display, following the direction of the foam holes.

Figure 3 - Perforation of the foam strip



Source: authors (2020)

Finally, a knot must be tied at only one end of each elastic band and passed through the acetate and foam holes, in the acetate-foam direction, making the knot stay outwards. After that, the prototype is done.

Figure 4 - Mounting of the face shield



Source: authors (2020)

RESULTS

The model created presented an adequate configuration for mechanical protection, reducing the risk of infection, due to the protection of the eyes and the skin, also by blocking the user from touching his face, preventing self-contamination.⁶

In about 7 days, 2,000 (two thousand) prototypes were made by approximately 20 volunteers, and amount which would take more than a month to be produced by a 3D printer, since the manual assembly time did not exceed 5

minutes, considering the materials, such as foam, acetate and rubber bands, were previously cut. A large amount of places were covered by the donation: Regional Hospital Dr. Abelardo Santos, Adventist Hospital of Belém, Santa Casa de Misericórdia do Pará Foundation, University Hospital João de Barros Barreto, Hospital Ophir Loyola, Hospital Beneficente Portuguesa, Hospital and Emergency Room Mário Pinotti. In the interior of the state, prototypes were sent to teams from Tucuruí, Paragominas, Tomé-Açu, Igarapé-Açu, São Caetano de Odivelas. In addition, municipalities on the island of Marajó, such as Breves, Soure, Curralinho, Melgaço and Bagre, and SAMU were also reached by donating materials for assembling facial protection.

The individual kits contained: 1 prototype face shield, 2 extra foams and 2 extra pairs of elastic bands to be exchanged and washed with use. The value of each kit was around R\$ 2.00, the cost of which was fully covered by donations from “Amor em Foco”.

Figure 5 - “Amor em Foco” prototype being used by a health professional in Breves-PA, on the island of Marajó.



Source: authors (2020)

DISCUSSION

The assembling of the face shield prototypes occurred in compliance with the norms of ANVISA Resolution No. 356, which also deals with manufacturing medical devices identified as priority for use in health services, due to the

international public health emergency related to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).(5) About the prototype, the production time is highlighted within a high demand context because when putting in comparison the production from a 3D printer, which have an estimated average production time of 112 units within 72 hours, the advantage of the handmade models' production is proven because, in the same time interval, with the work of 5 volunteers, 500 face shields were made.(7)

This is extremely significant, especially when analysing the 3D printers disponibility in the North region which, along with the Central-West region, exhibited the lowest number of federal institutions that have produced face shields in Brazil, due to the limitation to acquire the filaments and the high cost.(8) Another substantive aspect is the cleaning of the handmade prototype which, as much as the production from 3D printers, can be washed with water and soap and disinfected with a sodium hypochlorite solution.(9)

Furthermore, with the possibility of washing and disinfecting, there had been also the caution of adding to the individual kits: extras foam strip and elastics to be replaced between use and cleaning, which, even with the increase in cost and material values due to high demand, kept the cost under the average cost of 3D printers' models.

At last, for the volunteers, the enrichment of knowledge about biosafety was notorious, enhancing a great personal and professional growth, since the majority was composed of health professionals and academics. With classes and activities suspended, but with the purpose of helping and redefining the role of their actions, being able to innovate in health, many volunteers helped. The main role of caring has been reframed in the face of adversity, which shows the great and fundamental capacity of the new generation to adapt in the globalized world.(10) Professionals, on the other hand, were able to enjoy a PPE that, in addition to protection, significantly influenced their psychological and work disposition, according to the reports of countless professionals who received the donation.

CONCLUSION

The proposed prototype allows mechanical protection. Being a low-cost alternative and being able to be handcrafted, it can be used as a temporary solution in contexts of unavailability of PPE. In conclusion, even with the difficulties, like the price increase of the materials, the philanthropic act may also be seen as an important instrument towards the academic formation of the volunteers and as a incentive to solidarity, benefiting all the concerned parties.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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DESCRIPTIVE PROFILE OF THE SOCIAL IMPACT ACTIVITIES CARRIED OUT BY IFMSA BRAZIL MEDICAL STUDENTS DURING THE COVID-19 PANDEMIC

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KEYWORDS: Medical Education; Coronavirus infection; Social isolation.

INTRODUCTION:

The current COVID-19 (Coronavirus Disease 2019) pandemic and the recommendation of social isolation in Brazil, in mid-March, in an attempt to prevent the disease from spreading, resulted in activities previously carried out in person being replaced by the online modality, giving space to distance learning platforms and reaching other activities such as campaigns, seminars, courses and congresses.(1)

Another consequence of social isolation are the impacts on the mental health of individuals. A study conducted in China has shown that psychological impacts due to COVID-2019 are more often on students and women, as they are under high levels of stress, anxiety and depression, in addition to responsibilities and tasks in a

context where people are increasingly prisoners of productivism.(2)

In the specific context of the student, the rupture of the study routine and the suspension of activities is equivalent to a great amount of free time, which takes on the meaning of something harmful that needs to be completely filled and when it does not happen, we have to deal with anxiety and frustrations.(3)

Therefore, our goal with this study is to conduct a comparative analysis of the impact of COVID-19 pandemic on the performance of IFMSA Brazil activities between the months from March to June of 2019 and 2020. For this, we evaluate the total frequency of activities in both periods, the quantity of activities per program, the modality between online and face-to-face and the type of action, according to the IFMSA Brazil classification.

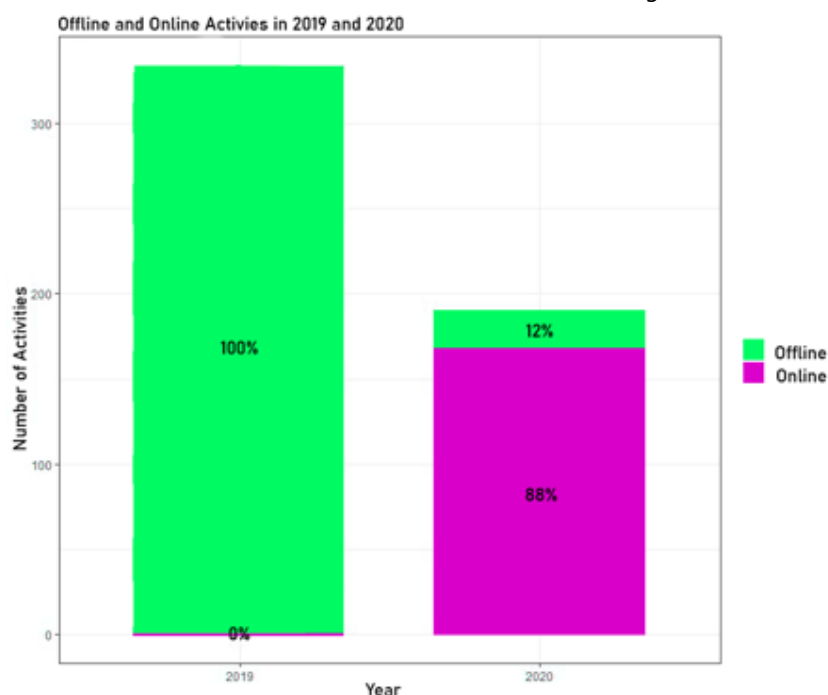


Figure 1. Comparison between virtual and presencial activities in 2019 and 2020.

METHODS:

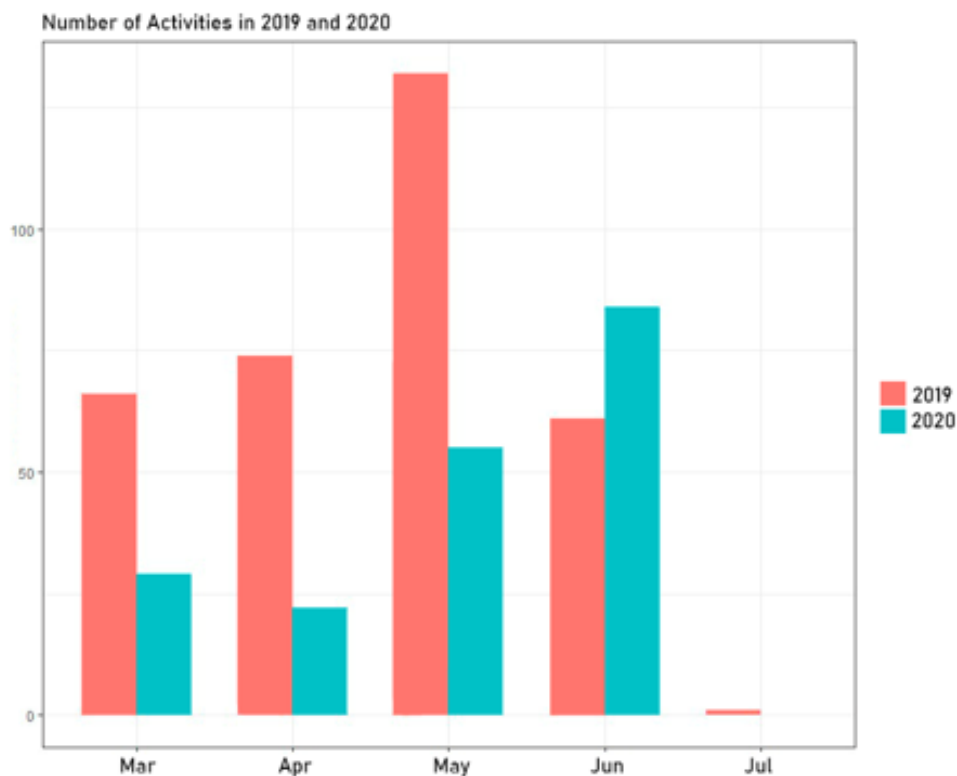


Figure 2. Comparison of the number of activities from march to july in 2019 and 2020.

Registration and Submission Forms (in portuguese FISA) of On-Line Activity and Reporting System version 2.0 (SOLAR 2.0). The inclusion criteria were activities that had been completed and whose FISAs had already been approved and the intervention had occurred during the specified periods. The exclusion criteria were activities whose FISAs did not contain sufficient information for analysis, such as whether they were online or not, or whose intervention had occurred outside the specified periods. The interval was defined in order to include the period of social distancing due to COVID-19 pandemic and the correspondent period in the last year, resulting in the period between 1 March and 30 June of the years 2019 and 2020. The data was collected between July 15 and 31, 2020. The variables collected were: name and type of activity, the program to which it was submitted, whether the event was on-site or online. For data processing purposes, only the last day of the activity was chosen as the period of the activity. Activities type was done accordingly to the one indicated in FISA following IFMSA Brazil standard. In the case of more than one type of activity, the type chosen was the one that suited the division of activities by workload. The data were described and analyzed in R with the software R Studio and the figures produced using the ggplot2 package.(4,5) For all data, the distribution of absolute frequency analysis was performed and plotted with bar graphs by ggplot2. This work did not require approval from the Research Ethics Committee because it was done with secondary data.

RESULTS

In a total of 528 FISAs, 524 were used, 0.57% (n=3) being excluded. The final sample was 524 activities, of which 334 (64%) in 2019 and 190 (36%) in 2020. Figure 01 shows that in 2019 there were practically no online activities and in 2020, 88% (n=462) of the activities occurred online. Figure 2 shows that the number of online and in-person activities in 2020 was higher only in the month of June. In the previous months, there was a decrease in the number of activities in 2020, as shown in Figure 2. In Figure 3, there was also a change in the number of activities submitted per program. In the year 2019, the Medical Skills program was predominant in the cut-off period, with 19% of the 2019 activities (n=65), while the other program by itself in the same period varied from 4% to 8% (n = 13 to 26) of the 2019 activities. In 2020, the predominance of the mental health program was observed in the established period with 21% (n= 40) of the activities of that year, while the other programs varied from 4% to 9% (n= 4 to 18) of the activities of that year in each one (Figure 3). Regarding the type of activity developed, it was observed that there was a decrease of more than a half of the number of campaigns and projects in 2020 compared to 2019, with an increase of other activities, as shown in figure 4.

DISCUSSION

In the analysis of the actions carried out two changes can be observed. The first of them is that the face-to-face form was replaced by the online form during the

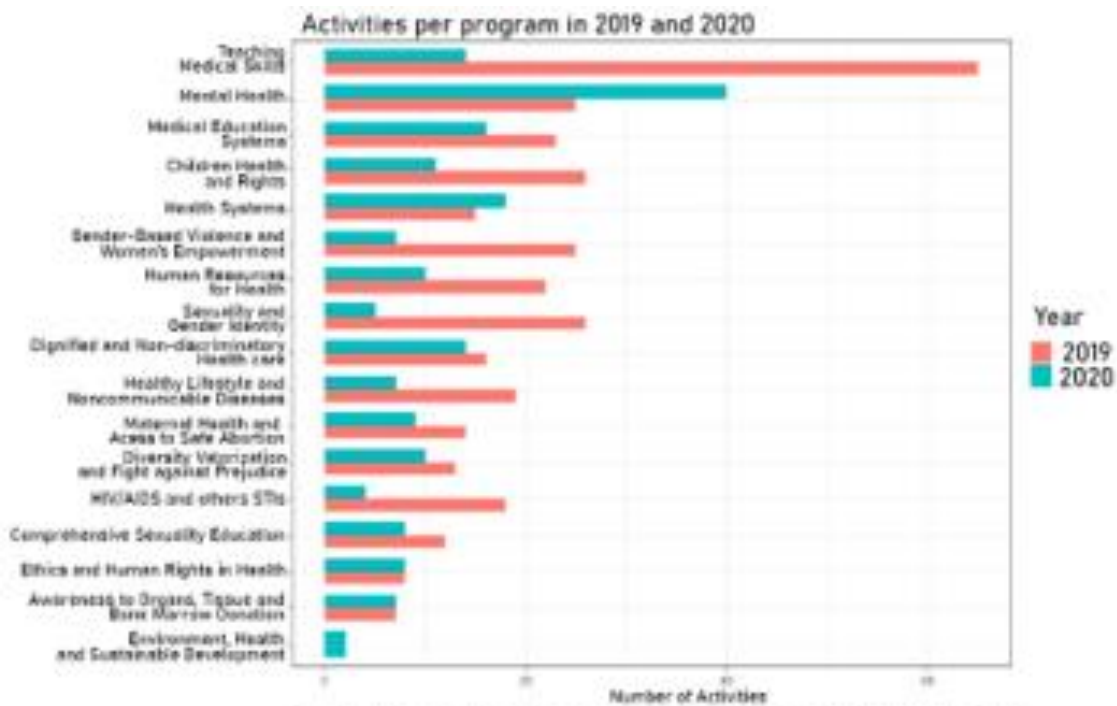


Figure 3. Comparison by programs of the number of activities in 2019 and 2020.

quarantine, although the data do not show a total adherence to the virtual model there was a notable adherence (88%) to the virtual environment for the actions. As for this, it must be considered that the isolation did not have homogeneous adherence in the country, some states adopted this protection measure before others. In the same period of 2019, the actions were 100% presential. In the analysis of the number of actions carried out in the period, the data collected shows that the actions in 2020 exceeded the previous year quantitatively only in the month of June. This allows two lines of reasoning: either the actions carried out fell due to the issue of stress and difficulties in organizing them in the midst of the pandemic or it may indicate a delay in the submission of FISAs 2 and correction of them, considering that we analyzed only completed FISAs 2.

Regarding the first reasoning, in which the drop of activities is a consequence of the period of stress and adaptation difficulties in the pandemic, it must be considered that the use of the Internet has been shown to be an aggravating factor in the mental health of the population, related to the increase of anxiety and depressive conditions.(6) The Internet during the pandemic concentrated in itself a high level of stressors.(7) This results from it conveying a high load of information, conflicting messages, reinforcing to individuals the restriction of freedom and the uncertainties of the process of illness by COVID-19.(8,9) There are also articles in the literature that address specific difficulties of students during this quarantine period, with implications on academic productivity and work.(6,10) Thus, this information route caused mental

health damage and may be a factor that resulted in fewer actions carried out by IFMSA Brazil in the year 2020, since face-to-face meetings and actions were made impossible as of March in Brazil.

Although the total actions have decreased in number, the analysis of the programs (axes of activities) shows that there has been a remarkable increase in the mental health program, the submission of FISAs has increased within this theme. The mental health program is the only one that exceeds in 2020 quantitatively the activities of the same period of the previous year. This may be related to the period of acute stress of medical students and an attempt to address this axis.(10,11)

Another program that concentrates actions at IFMSA Brazil is the medical skills program. This may be related to the greatest concern with theoretical and practical gaps in the formative process among Brazilian medical students.(12,13) Within the context of expanding medical schools that use the active methodology as part of institutional education, the analysis of the curriculum and competencies acquired during graduation and the implications of adopting this methodology should be carried out.(13-15) The Medical Skills program assists in the issue of curricular gaps as it encompasses both practical and theoretical actions. These are respectively exemplified by suture workshops and classes that aim to update students on health systems as well as to inform about interesting curricular components for the medical career. In this way, IFMSA Brazil gives the student the opportunity to train and adapt to their reality and this can justify this axis being well explored within the federation.

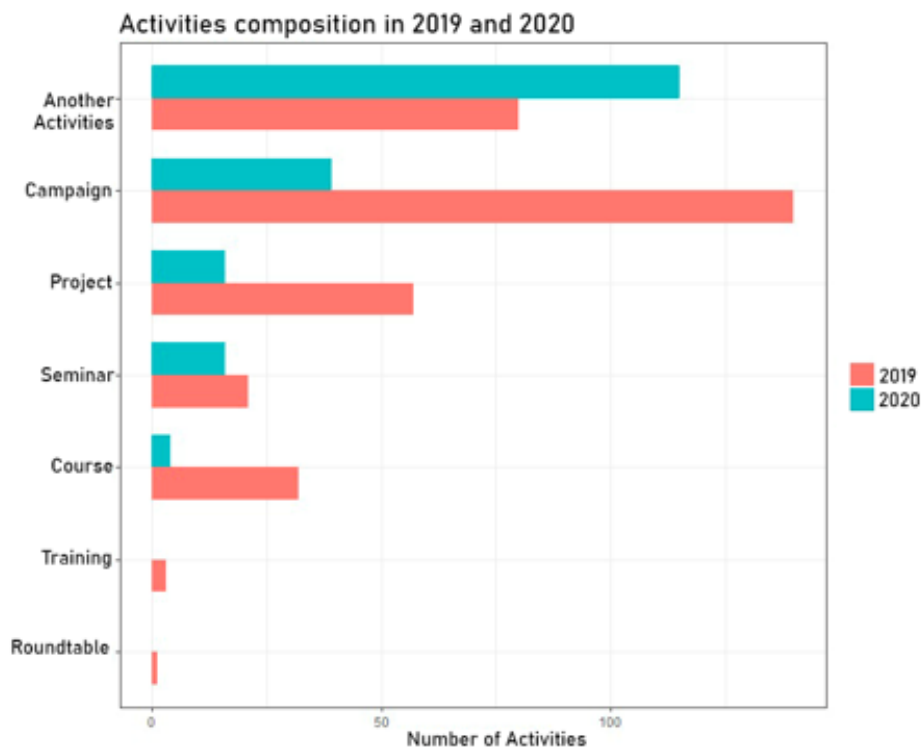


Figure 4. Comparison between activities composition in 2019 and 2020.

Another change is the decrease in the number of courses, seminars, projects and campaigns and the increase in what IFMSA Brazil classifies as "other activities" that indicates an adaptation of actions for the pandemic moment.

CONCLUSION

The data found has shown that, among the greatest changes, there was a drop in the absolute number of activities and a significant change in the programs with more activities carried out so that mental health gained greater prominence in 2020, leading the list. The Teaching Medical Skills program in 2020 had a drop in the number of activities, however, it still remains as a leading axis in the actions undertaken by IFMSA Brazil. Further analysis including the new FISAS 2, as well as analysis and comparison of FISAS 1 may contribute to a better assessment of the profile of activities in the midst of the new Coronavirus pandemic and social isolation.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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PSYCHOLOGICAL CONSIDERATIONS OF POST-INFECTION BY SARS-COV-2: AN INTEGRATIVE REVIEW

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Keywords: Coronavirus Infections; Mental Health; Depression; Anxiety; Public Health.

INTRODUCTION

The severe acute respiratory syndrome caused by the novel coronavirus, the SARS-CoV-2, was first identified in the city of Wuhan, China, in December 2019. On January 30, 2020, the World Health Organization declared COVID-19 as a Public Health Emergency of International Concern (PHEIC), characterizing it on March 11, 2020, as a pandemic.(1) Currently, until October 26, 2020, more than 43 million cases and more than one million deaths have been confirmed worldwide.(2)

Unlike coronavirus infectious outbreaks that have appeared since the beginning of the 21st century, such as severe acute respiratory syndrome (SARS-CoV) and Middle Eastern respiratory syndrome (MERS-CoV), the current outbreak has a higher rate of contagion, which it was a decisive factor for its dispersion throughout the world. As the number of positive cases boosted daily, the psychological burden associated with the general population and health professionals also increased.(3)

The inherent social distance, coupled with the lack of a definitive treatment protocol or vaccination program led to long-term psychiatric comorbidities, such as depression, panic attacks, anxiety, suicide, and post-traumatic stress disorder (PTSD), as reported in several samples during the spread of SARS-CoV and MERS-CoV. Among those affected, health professionals (4), the general population(5,6), and the most worrying, patients who survived the infection.(7-9) This study aimed to summarize and analyze the bibliography related to psychological reflexes in patients who contracted COVID-19 and required hospitalization.

METHODS

This integrative review was guided by the six-step process established by De Souza et al.(10) The six phases consist of elaborating the guiding question, searching the literature, collecting data, critically analyzing the included

studies, discussing the results, and presenting the integrative review.

The bibliographic survey was carried out in the PubMed/MEDLINE and SciELO databases, with the descriptors in English "Mental Health", "Stress Disorder", "PTSD", "Anxiety", "Depression", "Health Personnel", "Health Professional", "Coronavirus", "COVID19" and "Patient". The search terms were arranged as follows: (((("mental health") AND ("anxiety" OR "depression" OR "stress disorder" OR "PTSD")) AND ("coronavirus" OR "covid19")) AND ("patient")) NOT ("health personnel" OR "health professional").

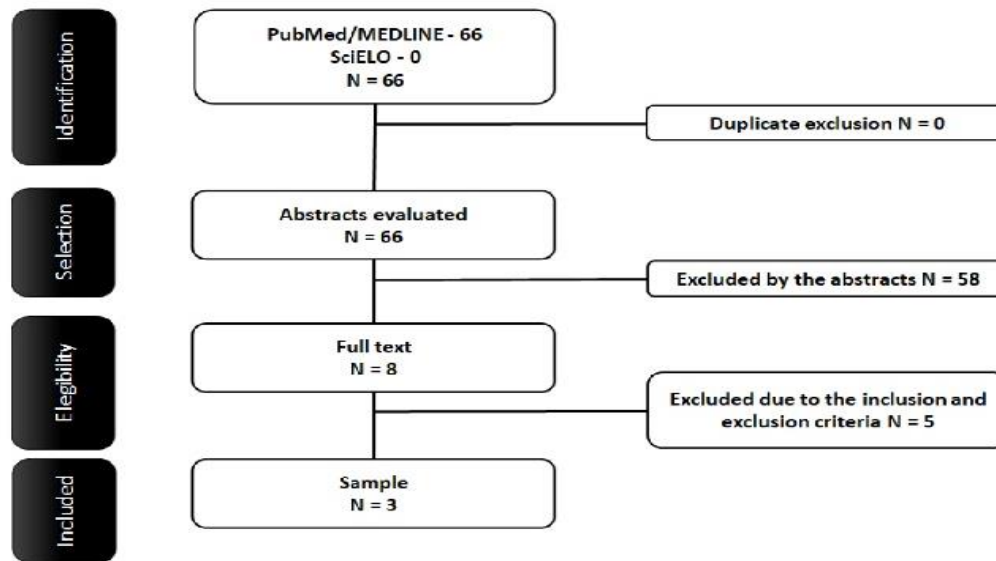
The inclusion criteria were complete articles published from January to August 2020 in Portuguese, English, or Spanish that addressed the psychological reflexes in patients infected with SARS-CoV-2, which outlined the research design. Exclusion criteria were pre-print, correspondence, articles published until the end of 2019, or that did not directly address the central theme of this review.

RESULTS

The search results in the two databases delivered 66 articles, all from PubMed/MEDLINE, so none of them were duplicated. Of these 66 initial articles, 58 were excluded in the first stage of the screening, where a careful reading of the abstracts and keywords was required to not find all the inclusion criteria. The remaining eight articles were read in full, followed by a discussion among the authors about their eligibility, reaching the final result of three selected articles, as shown in Figure 1.

In the collection, described in Table 1, two articles were original cross-sectional studies accomplished in China. One was conducted in Wuhan by X. Nie, Q. Wang, M. Wang, et al., and investigated the prevalence of depression and anxiety and the associated risk factors in patients with COVID-19. The second, in Zhongshan, was

Figure 1. Flowchart for identification, analysis, and selection of articles.



Source: elaborated by the authors themselves, 2020.

carried out by Zhang J, Lu H, Zeng H, et al. and the sample was stratified in patients who recently recovered from COVID-19 infection, quarantined individuals and the general public, aiming to identify the characteristics of psychological suffering in these populations. The last result was a case report, which despite the low level of evidence well-illustrated our topic. Epstein D, Andrawis W, Lipsky AM, et al. described the case of a patient hospitalized for mild COVID-19 infection who attempted to commit suicide. The three articles stated that there was significant interference by COVID-19 in the mental health of those affected, either because they had a high percentage of anxiety or depression (11), or because they had a higher prevalence of those affected by depression compared to other population strata (12), or for leading a suicide attempt motivated by in consequence of the infection and its treatment conduct.(13) Also, having family members who were diagnosed or died from the disease, or being female were identified as independent predictors for higher scores on self-report scales for depression and anxiety.(11) Both the analysis and the synthesis of the data extracted from the collection were carried out descriptively.

DISCUSSION

COVID-19 has rapid and proliferative contagion, which, associated with measures of social distance, can generate negative psychological reflexes, such as post-traumatic stress disorder (PTSD), anger, and confusion in healthy individuals and in those who have been infected by the virus.(14) In summary, the results exposed in this integrative review point to the existence of psychological consequences closely related to COVID-19, which are

manifested in different ways. Thus, the findings of this study make it clear that it is not enough just to pay attention to the respiratory, cardiovascular, or other systems belonging to the domain of organic health most affected by SARS-CoV-2 infection, but it is also essential to monitor the mental health of affected patients.

After the first SARS outbreak, a study showed that depression and post-traumatic stress disorders were reported up to one year after the initial virus infection (15). Given SARS-CoV-2, a pilot cross-sectional study conducted in Zhongshan, China, used the 9-item General Health Questionnaire (GHQ-9) and the 7-item Generalized Anxiety Disorder Scale (GAD-7) to assess the prevalence and severity of psychological distress in the three population strata assessed: patients recently recovered from the infection, quarantined individuals and the general public. The researchers concluded that the prevalence of depression was higher in patients presenting with COVID-19 when compared to the quarantined population and the general population. Still, the prevalence of anxiety was not statistically different between the three groups mentioned.(12) However, this conclusion differs from the findings of another single-center study, also cross-sectional, pilot, and Chinese, this time performed at the number one hospital in Wuhan, the epicenter of the pandemic. In this study, the researchers evaluated depression and anxiety using two self-assessment scales: Zung Depression (SDS) and Zung Anxiety (SAS). The article indicates after patients who were admitted to two hospital wards to have tested positive for the new coronavirus had a prevalence of depression and anxiety similar to the general population

Table 1. Included articles.

Title/Authors	Objectives	Methods	Results	Considerations
<i>Anxiety and depression and its correlates in patients with coronavirus disease 2019 in Wuhan.</i> X. Nie, Q. Wang, M. Wang, et al¹¹.	Investigate the prevalence of depression and anxiety and the associated risk factors.	Self-reported scales of depression and anxiety. Linear regression to determine independent predictors.	35,9% of patients with symptoms of depression; 38,5% with symptoms of anxiety. Having family members diagnosed or killed by COVID-19, or being female were independent predictors.	COVID-19 patients, especially those whose family members were diagnosed or killed by COVID-19 are more susceptible to depression and anxiety than other patients.
<i>The differential psychological distress of populations affected by the COVID-19 pandemic.</i> Zhang J, Lu H, Zeng H, et al¹².	Identify the characteristics of psychological suffering in populations affected by the COVID-19 pandemic.	Sample was stratified in patients who recently recovered from COVID-19, quarantined individuals and the general public.	The prevalence of depression was higher in those infected with COVID-19. Infected by COVID-19 and the population in general, they indicated an increased prevalence of comorbid depression with anxiety.	There were different levels of psychological distress in patients who were infected with COVID-19, quarantined individuals and the general public.
<i>Anxiety and suicidality in a hospitalized patient with COVID-19 infection.</i> Epstein D, Andrawis W, Lipsky AM, et al¹³.	Describe a case of a hospitalized patient for mild COVID-19 infection.	Case report.	When testing positive for COVID-19, the patient was admitted and treatment has started. On the 7th day of hospitalization, he jumped from the infirmary on the 3rd floor, attempting suicide, being stabilized and the transferred.	Illustrates the psychological disorders that can be linked by infection, an organic cause.

Source: elaborated by the authors themselves, 2020.

during a pandemic.(11)Thus, it is important to highlight the limitations of both articles, which may have contributed to the divergence of results. The study carried out in Zhongshan presented as the main limitation the fact that it was the first study that aimed to explore psychological health in groups with different levels of exposure to the COVID-19 epidemic.(12) The study conducted in Wuhan suggests a possible justification for not discrepancy between the levels of psychological status measured between patients and the general population, the fact of free treatment, and the sense of security after admission to the isolation ward. The authors also point out as limitations of the study the fact that the sample is small, 78 patients out of 85 who were admitted in the period from 02/14/2020 to 03/18/2020, in addition it was directed in a single center; because the questionnaires were self-reported, none of the participants were in critical health condition, which prevents a correlation between the severity of the infection and the psychological state, which can be

considered a selection bias; in addition, his findings can only qualify for a prevalence of symptoms of depression or anxiety, as the Zung scales used have not been validated for patients with COVID-19 or other public health events; still, they draw attention to the fact that the cross-sectional design has inherent limitations that do not allow causal interpretations of the results; finally, the researchers did not record comorbidities with chronic diseases, marital status and employment, known risk factors for major depressive disorder or suicide attempts.(11) Despite limitations and bias, X. Nie, Q. Wang, M. Wang et al. demonstrated that multiple linear regression revealed that having family members with a positive diagnosis for COVID-19 or death resulting from it were independent predictors for higher severity of depression index or anxiety score, both measured by the Zung scales. In the meantime, being a woman was also independently associated with higher rates of the severity of depression in patients with COVID-19.

Although case reports are classified as level 5 evidence, according to the hierarchy of evidence-based practice 10, this article is valuable, as it tests the case of a young patient hospitalized for COVID-19 symptom levels. During his stay in the ward, we did not have dyspnea or fever but related to a psychological condition with anxiety and insomnia. On the 7th day of hospitalization, the patient attempted suicide, a fact that is directly linked to the psychological disorders he presented. In this manner, he was submitted to urgent surgery, being transferred to a trauma level I center, always respecting the isolation rules.(13)

The main limitations of this study refer to the fact that there is a restriction of the results in the database search, caused by the requirements imposed at the time of the search (use of specific Boolean descriptors and operators), which may have been a reason for the absence of articles on the topic that were not included in the search engine. As follows, the fact that a new and specific theme was addressed - considering that the vast majority of articles that were presented as a result of the search needed to be removed (including pre-prints) for not addressing the outline proposed by the review.

CONCLUSION

This research is extremely important to notify health professionals and hospital unit managers who are focused on the treatment of people affected by COVID-19 that monitoring the mental health of these patients is essential. Besides, the study indicates that publications that relate to the reflexes of SARS-CoV-2 infection to the mental health of those infected, especially those who undergo hospitalization, are negligible, which has a clear expression in this article, considering that, even expanding the field of inclusion of a selection of articles to be reviewed for studies with less evidence, such as case reports, only 3 publications were found yet.

Thus, motivated by the fact that the entire world population is at risk of infection with the new coronavirus, future works must focus on the theme determined by the objective of this review, aiming for discoveries and considering that these publications helped in the production of evidence that guides public health managers towards the realization of strategies with psychosocial performance, which may be included in the health management plans that compete for the care of patients affected by this viral infection.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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ACCESS TO PRIMARY CARE AND THE IMPACTS OF THE COVID-19 PANDEMIC IN MINAS GERAIS

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INTRODUCTION

The Primary Health Care (PHC) works similar to a filter, regulating access to other health sectors, since it constitutes the first way of contact between the population and the health system. PHC has several functions, such as prevention programs integrated with longitudinal and comprehensive care, usually aimed at the family, through the Family Health Strategy (ESF). (1) Thereby, primary care is of great relevance, since it provides attention to the individual, eliminating the curative view, treating the patient in an integral and continuous way over time. (2) Thus, in view of the relevance of PHC functions, it serves as the basis for the other levels of medical care.(1,2) The pandemic caused by the SARS-CoV-2 virus was declared by the World Health Organization (WHO) on March 12, 2020 and the beginning of community transmission in Brazil was announced on March 20, 2020.(3) As a result of the fast spread of the virus, isolation measures were necessary in an attempt to contain the progression of the disease.

Given the principles that govern the Unified Health System (SUS)(4), which are integrality, universality, equity, it is expected that all Brazilians have access to health. In doing so, we sought, through a quantitative analysis, to discuss this aspect, taking into action for the modifications possibly triggered by the COVID-19 pandemic. It is pertinent to emphasize that the difference between access and accessibility proposed by Starfield will not be considered.(2) Thus, access is evaluated as the institutional means of the health system available to the public.(5) Although PHC has proven to be essential in recent decades, access is still the worst category evaluated in primary care in Brazil.(1) In this context, the impacts of social isolation, added to the set of past impasses, are related to the intensification of obstacles to access to health in the country. Nevertheless, PHC should maintain the follow-up of chronic patients and expand

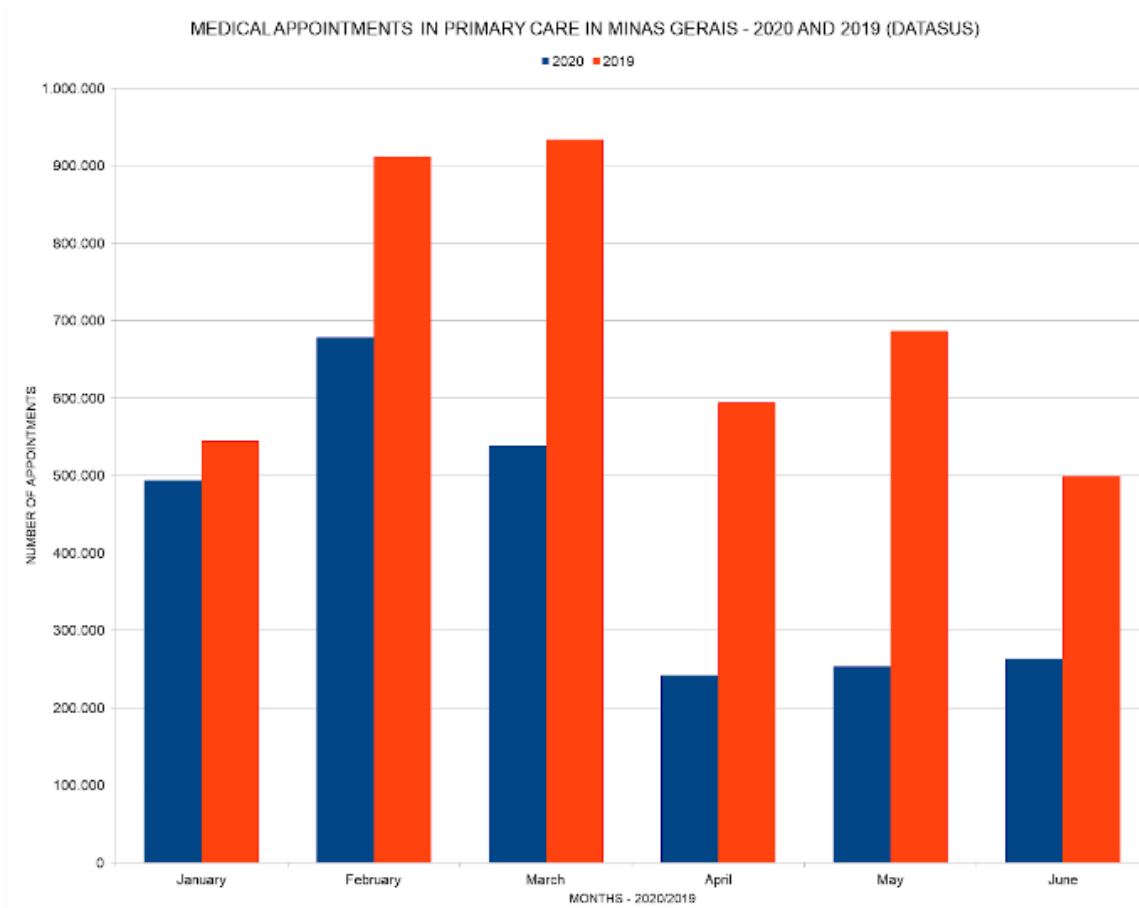
the field of telemedicine, in order to mitigate the current problem. This follow-up can be intensified using several strategies, such as home visits and virtual care. In addition, greater investments in primary care are needed, as well as the urgency of a more effective organization of professionals and resources in each Basic Health Unit.(2)

In view of the above, this study seeks to understand the consequences of the current pandemic context on access to basic health services. The hypothesis raised is that access to primary care, as well as the care of patients with chronic diseases would have a reduction during the COVID-19 pandemic period in Minas Gerais. The analysis was based on the frequency of care performed by primary care, considering data prior and posterior to the emergence of COVID-19. This discussion is justified by the need for actions that aim to reduce the major impacts of the pandemic on the Brazilian health system, since further scientific research on the subject is necessary in order for the actions to be effective.

METHODS

This is an ecological study since it studies data related to a population. It is also cross-sectional and has observational character. The database information was collected on the virtual platforms of the Department of Informatics of the Unified Health System of Brazil (DATA-SUS) (6) and the Health Information System for Primary Care (SISAB).(7) It is noteworthy that data referring to July and August were not considered, since they were not present in the databases.

Data were collected regarding the state of Minas Gerais, considering the number of total medical consultations in Primary Health Care (PHC) and number of individual consultations of patients with diabetes, a disease chosen as an example of a chronic condition, in order to evaluate the impacts of the pandemic on the treatment of patients



Graph 1 - Data regarding medical consultations in primary care, extracted from DATASUS, referring to the period of January to June 2019 and 2020. Source: Own authorship.

with non-transmissible diseases, in PHC, from January to July 2019 and 2020. These data were obtained in order to compare the range of primary care prior and during the course of the pandemic.

For comparison, the mean percentage of variation and the median of the absolute difference referring to each year for both variables mentioned above was achieved. Also, it is noteworthy to say that the data is asymmetric and that is the reason why the median was calculated. The percentage variation was obtained by subtracting the monthly values found in 2020 by the monthly values found in 2019. Subsequently, the result calculated was divided by the monthly value of 2019. Once this is done, it is multiplied by 100 to get the value in percentage. To calculate the median difference, the monthly value of 2019 was subtracted by the value of 2020. After that, the median was performed for the values found. As the values were even ($n=6$) the mean of the central values was made and, thus, the median value was obtained.

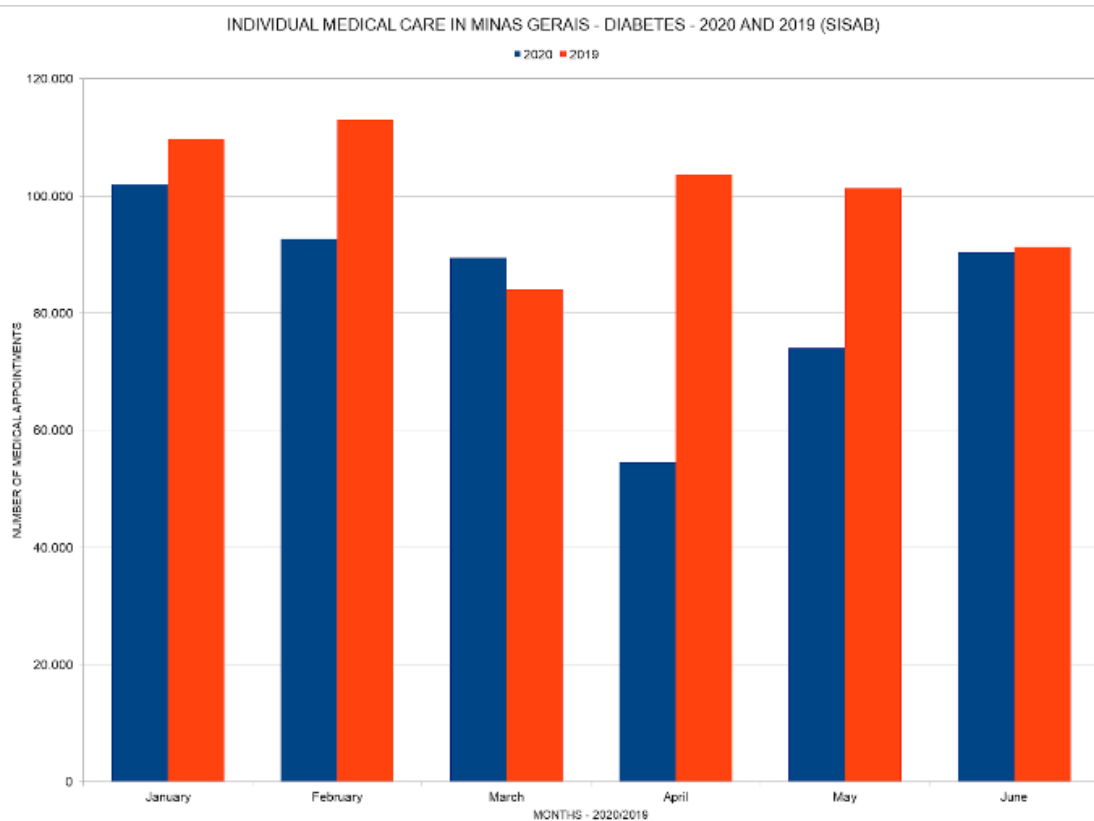
To test the significance of the difference of these measurements between years, the Wilcoxon nonparametric test (8) was used, for being the most appropriate test for this specific situation, in which the

samples are related. For this process, the software "Action Stat" was used, and the level of significance adopted was equal to 5%.

RESULTS

The data collected in the SISAB (7) and DATA-SUS (6) are shown in Graph 1, presenting the number of total primary care visits between the months of January and June throughout the years of 2019 and 2020, while Graph 2 presents the number of diabetics who received medical care during the same period. The values found per month of the percentage variation of the collected data are shown in Table 1, while the values found calculating the difference of the data between the months of 2019 and 2020 are shown in Table 2. The values found by the final analysis can be seen in Table 3.

There was a significant decrease in the Wilcoxon test in the number of total primary care visits in the state of Minas Gerais in 2020 when compared to 2019 ($p=0.0312$). On the other hand, it was found that, even with the high variation for the months of April and May, the total variation was not significant by the Wilcoxon test for the care of diabetics ($p=0.0938$).



Graph 2. - Data on individual care of patients with diabetes, extracted from the SISAB, referring to the period of January to June 2019 and 2020. Source: Own authorship.

DISCUSSION

Given the high chance of contagion of the SARS-CoV-2 virus, combined with the protocols of social isolation and the orientation of suspension of elective care (9), it was hypothesized that access to primary care, as well as the care of patients with chronic diseases would have a reduction during the period of COVID-19 pandemic in Minas Gerais. The statistical analysis of the collected data confirmed, in general, a significant reduction of primary care consultations ($p= 0.0312$), revealing a deficit in the population's access to this service in this period of social isolation, as it had been previously hypothesized. On the other hand, the number of visits from people with diabetes did not show a statistically significant decrease ($p= 0.0938$), leading us to conclude that there was no reduction in the care of diabetics during the pandemic. The first result reinforces a problem previously addressed to the pandemic: the difficulty of access to quality service within the time to meet the patient's complaint.(5) The political bias in the management of health systems, along with underfunding, contribute to the precariousness of basic care.(10) Moreover, the geographical barriers and

restricted opening hours distance the population from access to fast and quality care.(11) The previous problems along with the pandemic context, led to greater selectivity on the part of PHC, since it needs to direct the focus to combat COVID-19 and maintain care for chronic patients that are subjected to more complications.(9,11) This situation forced PHC to postpone less urgent care,(9) contributing to the formation of a pent-up demand that could generate an impact in the post-pandemic context, overloading the system. In addition to postponed consultations, the change in habits caused by social isolation creates scope for the emergence of complications such as mental health problems like anxiety

	January	February	March	April	May	June
Data difference in medical appointments in primary care between 2019 to 2020	50.543	233.904	396.134	352.025	432.968	235.559
Data difference in individual medical appointments for diabetes between 2019 to 2020	7.407	20.363	-5.316	49.171	33.384	920

Table 1 - Results related to the calculation of the difference between the value of the data collected from January to June 2019 and 2020. Source: Own authorship.

and depression and others resulting from poor diet, sedentary behavior, increased consumption of alcoholic beverages and domestic violence, already reported in literature.(12-15)

In view of the changes mentioned above, it is possible to infer the reason why there was no decrease in diabetes consultations, since chronic diseases were prioritized in the Technical Note of the Center for Emergency Health Operations - COES MINAS COVID-19, No. 21/2020 - 06/04/2020,(9) published at the beginning of the pandemic in Brazil; and in the speech of the director of the Pan American Health Organization - PAHO Clarisse F. Etienne,(16) who highlighted the need for the treatment of non-transmissible diseases. Thus, we emphasize the need to maintain this favorable aspect of access to and organization of PHC from Minas Gerais, in face of the pandemic, since there are reports in other countries of a failure to continue the care of this population.(13)

	January	February	March	April	May	June
Percentage change in medical appointments in primary care (2020-2019)	-9,288%	-25,643%	-42,397%	-59,232%	-63,046%	-47,165%
Percentage change in individual medical appointments for diabetes (2020-2019)	-6,771%	-18,020%	+6,319%	-47,444%	-31,088%	-1,007%

Table 2 - Results of calculations of the percentage variation of data collected on medical consultations in primary care and diabetes, from January to June 2019 and 2020. Source: Own authorship.

As a potential solution, telemedicine is a possibility,(17,18) since it allows a decrease in the flow of PHC through online consultations, while allowing the fulfillment of less urgent cases, so that the demand for consultations would be reduced after the pandemic. However, this alternative brings with it problems of inequality, since one in four people in Brazil do not have adequate access to the Internet, nor devices that allow this access,(19) which constitutes a challenge for the use of this technology on a large scale. Moreover, it is essential to redirect funds and new investments, in addition to the formulation of new strategies in order to mitigate the problems of underfunding primary care. Thus, it will be possible to make the first level of care more robust so it can deal with the repressed demand with quality and efficiency in the post-pandemic period, as well as the cases that will continue to need consultations.

primary care, both in the pandemic and post-pandemic contexts.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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Variables	Average percentage change (2019-2020)	Median difference (2019-2020)	p-value
Medical appointments in primary care	-41,128%	293.792	0,0312
Individual medical care for diabetes	-16,335%	13.885	0,0938

Table 3 – Result of the calculations of the mean percentage variation, median difference and p-value (Wilcoxon test)

Finally, it is worth mentioning that this article is limited to the restriction to the state of Minas Gerais and cannot be applied to discussions at a national level, since each state adopted its own guideline. Further studies on the condition of other chronic diseases during the pandemic period are needed, since this study only addresses diabetes.

CONCLUSION

Based on what was discussed in the present study, we can conclude that the reduction in access to primary care will certainly have negative impacts on the post- pandemic context. This study will contribute to a greater understanding of the limitations of access to PHC in Minas Gerais, which may help the planning of measures to repair them. In addition, it is important to conduct future studies with the intent of evaluating other non-transmissible chronic diseases grouped together and with shared values in order to uphold health planning. Finally, it is important to conduct studies with the objective of evaluating new data and perspectives regarding access to

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RAINBOW COLORS ERASURE: AN INTEGRATIVE REVIEW ABOUT THE IMPACTS OF COVID-19 ON LGBTQIA + HEALTH

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INTRODUCTION

In December 2019, it emerged in Wuhan, China, the new respiratory infection that later would be identified as the 2019 Coronavirus Disease (COVID-19). In January of the following year, the World Health Organization (WHO) (1), considering the increasing number of cases around the world, declared a state of International Emergency. This scenario, together with the pre-existing social weaknesses, brought up discussions about marginalized and considerably more vulnerable populations in pandemic times.

It is common knowledge that, even in normal situations, individuals that don't meet specific standards of gender and sexual orientation are constantly subjected to stress factors that keep them out of the health system. Thus, considering that, according to the Ministry of Health of Brazil (2), sexual orientation and gender identity are important social determinants of health and assuming that the current pandemic is a period of considerable instability, in which social vulnerabilities are accentuated, it is clear that the LGBT + community suffers, disproportionately, from this situation, since it is susceptible not only to the infectious risks of the virus, but also to the psychosocial problems resulting from the current pandemic - the result of the process of overlapping marginalization (3).

Therefore, this study aims to assess the impacts of the COVID-19 pandemic, as well as the resulting social isolation, on the health of the LGBTQIA + population.

METHODS

It is an integrative literature review, which, according to Broome (4), consists of a synthesis of research already

published, generating general conclusions on the topic of interest. The article was systematized according to the steps proposed by Whittemore and Knafl (5): 1) identification of the guiding question; definition of inclusion criteria; database searches for studies; 2) analysis of study abstracts; selection of studies; 3) analysis and file of studies; 4) data analysis.

The research included the Virtual Health Library (VHL), Google Scholar and PubMed databases, so that searches were performed with the following search keys: "LGBT" AND "covid-19" in PubMed database, "COVID-19 virus infection" AND "Sexual and Gender Minorities" on Google Scholar database and "Coronavirus infections" AND "Sexual and Gender Minorities" on VHL database - all descriptors were determined by the Tool Descriptors in Health Sciences (DeCS) (6) - and the boolean operator "AND" for articles addressing both themes simultaneously. It is noteworthy that the use of varied research keys occurred due to the small amount of results found when the same key was used in the three databases.

Inclusion criteria were established as all original articles made available in full, in English or Portuguese, which were published in 2020. Then, the exclusion criteria for removing monographs, theses, and review articles were applied. From this systematization, we selected nine articles that answered the research question: How are sexual and gender minorities being affected by the COVID-19 social distance measures?

In sequence, we performed the record of the nine articles, with subsequent data analysis.

Table 1: summary of the articles selected for review

Título	Objetivos	Método	Principais Resultados
Rethinking COVID-19 Vulnerability: A Call for LGBTQ+ Health Equity in the United States During and After a Pandemic	Assess the impact of the COVID-19 pandemic on the LGBT + community. Identify overlapping forms of marginalization and their impact on health equity.	This is an original article built from databases of public access.	The present study promotes a reflection on the vulnerabilities related to COVID-19. Thus, suggests that an exclusive emphasis on the risks inherent to adults aged from 65 stimulates perspectives outside social and political factors, contributing to a precarious health supply for socially vulnerable groups, such as an LGBT + population. Thus, it is concluded that the current pandemic disproportionately affects the health of LGBT + individuals, either due to a considerable number of overlapping marginalization, or due to the greater susceptibility of this group to behavioral disorders caused by social isolation.
“The Untold Side of COVID-19”: Struggle and Perspectives of the Sexual Minorities	Assess the risks of the COVID-19 pandemic for sexual minorities. Identify psychosocial factors involved in the deterioration of COVID-19 vulnerabilities for LGBT + community.	This is an original article built from databases of public access.	This study points out that LGBT + people are more prone to develop stress-related factors and, therefore, are not only susceptible to infectious virus risks but also to the psychosocial disorders resulting from the pandemic. Furthermore, it is noteworthy that during crises, human behavior is more likely to become irrational and violent, contributing to the aggravation of existing social stigmas, which intensifies the vulnerabilities related to the LGBT + population. Finally, possible solutions are listed: awareness of precautionary measures, harm reduction programs for risky sexual behaviors and substance abuse, information activities, education and communication in communities for social inclusion, among other measures.
Impact of COVID-19 Pandemic on Minority Populations in Brazil: An Analysis of Social/Racial Disparities in Maintaining and Description of Behavior	Understand how social distance measures and the COVID-19 pandemic are impacting personal lives, sexual behavior and access to Social Prophylaxis (PrEP) and Antiretroviral Therapy for men who have sex with men (MSM) and Transgender.	Cross-sectional study based on an online questionnaire with 3486 participants.	Less education, lower income, excessive alcohol consumption and being black / brown / native race were related to the impossibility of maintaining social distance. The most measured challenges were reduced / lost wages / jobs, access to hand sanitizer and availability of transport. 29.7% of those who consumed alcohol reported an increase, 49.4% of those who consumed tobacco said an increase and 30.4% of those who used illicit drugs measured an increase. The main reasons for discontinuing the daily use of PrEP were the impediment to withdraw from refueling and sexual abstinence. Regarding antiretroviral therapy, 17.2% of those who used it reported the impact of distance on refueling.
LGBTQ Populations: Psychologically Vulnerable Communities In the COVID-19 Pandemic	Discuss the influence of the COVID-19 crisis and the reactive capacity of the United States health system regarding the specific risks of the LGBTQ population caused by the psychological burden of COVID-19, in addition to proposing interventions.	Original article made from US government, organizations and information vehicles database.	This study points out that the LGBTQ community is particularly vulnerable (mainly because of the intersectionality with the ethnic-racial dimension) to the psychological, financial, employment and health insurance ramifications in the context of COVID-19. It also recommends that educational, social services and mental health institutions provide their services online, in addition to extracurricular activities for the LGBTQ community in order to strengthen community support and integration.
Vulnerable Youth and the COVID-19 Pandemic	Analyze the risks faced by vulnerable pediatric populations, including the LGBTQ community, in the context of the COVID-19 pandemic.	Original article made from US government data and scientific articles about vulnerable youth.	Pediatric health workers play an important role in the COVID-19 pandemic, and should draw attention to the special needs of populations that are likely to be disproportionately impacted by the pandemic, in addition to setting up alternative care assistance. Furthermore, much can be done through partnerships between state child welfare agencies, departments of health, and advocacy organizations.
Precariousness lives and LGBTQIFOBIA at the pandemic context: the dissidents sexuality necropolitics	Problematize some of the historic and contemporary elements that affect the LGBTQIA+ individuals compared to the public health crisis due to the COVID-19 pandemic, once that only increased and worsened their precariousness and vulnerability. Beyond answer to (2020), and implications to the LGBTQIA+ before the pandemic scenery and its effects.	The article reflected on the researches and data analysis organized for the “OutRight Action Internacional2”, released by the report “Vulnerabilidade Amplificada: o impacto da pandemia COVID-19 nas pessoas LGBTQIA+” (2020). Besides relate experience with the creation of the “Campanha TranSolidariedade” in the city of Juiz de Fora (MG).	The analysis done in the article tried to take into account the precariousness and vulnerability context of the LGBTQIA+ lives and bodies, in general, and in the concrete experience with the transsexual women and “travestis” in the city of Juiz de Fora. The article understood that, if the working class is already affected for sanitary, political, economic and social crisis that reach the county, the LGBTQIA+ community, well-marked because of the discrimination, prejudice and intersectionality to other social determinants, have their bodies and lives even more precarious.
LGBTI+ during Covid-19 Pandemic	To investigate reflexes and consequences of the Covid-19 pandemic for the LGBTI + population and justify research in this area.	Original article that uses a brief historical and conceptual review and preliminary disclosure of research data, together with an update on the current scenario faced by the LGBTI + population during the COVID-19 pandemic period to justify, contextualize and map data about health of that community.	This article aimed to investigate the consequences of the COVID-19 pandemic from the perspective of LGBTI + diversity. Initially, the authors propose to discuss the context of general vulnerability of this population, to revise concepts about the State's responsibility towards LGBTI + demands, and to contextualize, historically, the actions of the Brazilian State in the guidelines of the LGBTI + community. In addition, the figures released by a survey by the #VoteLGBT Collective, the Federal University of Minas Gerais and the University of Campinas are released on a preliminary basis. From the results of this research, we highlight that: the LGBTI + population reports more mental health problems, unemployment and tensions in family life; there is a comparison of data that shows an increase of up to 4 times in mental health problems in this community; for 28% of this community, family life is reported as an obstacle to coping with the pandemic, a number almost four times higher than the 7.6% of the national average; it was not possible to comprehensively cover the senile population of this community with such research; 97% of this community rated the confrontation of COVID-19 by the Presidency of the Republic as terrible, a number more than 2 times higher than the national average of 43%; 93% of this population supports isolation measures, while only 52% does so on the national average.
Economic, Mental Health, HIV Prevention and HIV Treatment Impacts of COVID-19 and the COVID-19 Response on a Global Sample of Cisgender Gay Men and Other Men Who Have Sex with Men	Fill in the gaps on the economic and health impacts of COVID-19 social by conducting a study among a sample of gay men and other MSM living with or at high risk for HIV worldwide.	Cross-sectional study based on research implemented by a gay social networking application that has more than 25 million users worldwide. Analyzing responses from 2732 people from 103 countries.	Of the total, 11% lost their jobs, 38% did not receive financial aid when necessary, 19% reduced or cut meals and 4 out of 10 said their income was reduced by 30% or more. 31% stated moderate to severe psychological distress, 35% positive screening for depression and 34% for anxiety. Of the participants who did not live with HIV, 65% had access to condoms, 30% had access to HIV testing, 21% access to PrEP and 17% to PEP, respondents from ethnic or racial minorities indicated less access to condoms and HIV tests. 23% of participants with HIV reported losing access to treatment providers, individuals from racial or ethnic minorities reported more difficulties in treatment.

"I'm Kinda Stuck at Home Investigate the experience of the This is a qualitative study for LGBT + young people. Starting from the phrase that name the job - "I'm kind With Unsupportive Parents young LGBT + population based on the analysis of of stuck at home with parents who don't support me at the moment" - and Right Now": LGBTQ during the COVID-19 pandemic. 31 transcripts of online considering that queer youths experience unique stressors, the article lists Youths' Experiences With Analyze the impact of online chats obtained from the consequences arising from living in a hostile and intimidating environment for this COVID-19 and the support groups for LGBT + "Q chat Space", an online group. Such consequences are manifested through mental health problems, such as Importance of Online youth during the period of social support platform for stress, anxiety, depression and suicide. Finally, the importance of online support Support isolation. young LGBT+ platforms for this group is highlighted, as it is online where these young people assert themselves as beings belonging to a community and find support that they often do not receive at home.

This study proposes a reflection on the risks of the current pandemic to the LGBT + population, promoting a deeper and more specific analysis of the consequences of stuck at home with parents who don't support me at the moment" - and Right Now": LGBTQ during the COVID-19 pandemic. 31 transcripts of online considering that queer youths experience unique stressors, the article lists Youths' Experiences With Analyze the impact of online chats obtained from the consequences arising from living in a hostile and intimidating environment for this COVID-19 and the support groups for LGBT + "Q chat Space", an online group. Such consequences are manifested through mental health problems, such as Importance of Online youth during the period of social support platform for stress, anxiety, depression and suicide. Finally, the importance of online support Support isolation. young LGBT+ platforms for this group is highlighted, as it is online where these young people assert themselves as beings belonging to a community and find support that they often do not receive at home.

Source: Developed by the authors, 2020.

RESULTS

All the nine articles selected for this integrative review were synthesized and are previously presented at table 1. It's seen as a common spot in all articles that the LGBTQIA+ people already lived, before the pandemic crisis, in a vulnerable and sociopolitical inequality situation - created for a cisheteronormativity obligation - in a way that these conditions were even more accentuated after the pandemic.

At a first analysis, the stressors increase explicitness of anxiety, depression, and other mental health grievances at the population in the study had been seen on seven references of this review, which has many causes. One of those was the fact of being isolated with people that do not support your gender identity and expression or/and your sexual guidance, the suffering from the decrease of a great part of your income, and the concern with the COVID-19 infection itself (17, 22, 23). As a mental health grievance consequence was seen that many of these people potentialize their addiction to substances like alcohol, cigarettes, and illegal drugs, which turns their mental health condition even worse (16).

Furthermore, three of the nine publications address the relation between COVID-19 and the economic and employment vulnerability in the LGBTQIA+ community, being a coefficient that caused the preclusion of the isolation fulfillment and the adoption of expenditure containment measures, as cutting meals, from part of these individuals.

Besides, the intersectionality is also a much mentioned point, direct or indirectly, in the reviewed material. It could be seen on two levels. The first one is related to the fact that the general community suffers the crisis effects in a major intensity. This was represented, for example, in an article that measured that the mental health grievances in LGBTQIA+ individuals were four times bigger than in general population. The second one is related to the existence of inequalities in the own community because in the moment that ethnic and racial factors were related to the non cisheteronormativity were seen a potentiation of the difficulties and the challenges.

Lastly, was shown that the pandemic also affects these individuals at the HIV prevention and treatment, in a negative interference in the continuity at the prophylaxis

means PrEP and PEP and at the TerapiaAntirretroviralmedications, that happen due to the medicine supply difficulties and the absence of the providers, for example.

DISCUSSION

From the results obtained with the review of the articles it is important to highlight that the pandemic only fortified the repressions that LGBTQIA+ people were already victim in non-pandemic times, such as the elevated risk of domestic and familiar violence, the employment vulnerability – many LGBTQIA+ individuals tend to have low-income jobs and usually on the informal sector – the health disturbance and the reluctance to seek for treatment (7).

Thereby, it is possible to measure that being outside of the hetero-cis-normativity category is a social determinant of health – concept that indicates a link between behavioral, ethnic, racial and/or social factors with the appearance of diseases (8) - given that, the vulnerability caused by the expression of a non-hetero-cis sexuality is associated with the social invisibility and with the prejudice in the health services (9).

In that perspective, the greatest neglect of mental health care of the LGBTQIA+ community in relation to society in general is notorious. This neglect occurs due to a range of factors such as discrimination, marginalization and homophobia, both in their family unit and in health services, which drive these individuals away from these institutions (10). Thus, without an adequate support system, this population becomes more vulnerable to the development of mental disorders, for example: depression, suicidal thoughts, self-harming and substance abuse (11, 12, 13).

Moreover, the emergence of the pandemic and the fear of transmission and infection by COVID-19 ends up increasing the suffering of a large portion of this population (7), causing an expansion in the previously mentioned barriers.

Concurrently, it is a great concerned that LGBTQIA+ people are having difficulty to access AIDS prophylaxis and treatment, once the reduction of AIDS cases was included in one of the millennium objectives for development determined by the United Nations (14), due to its great epidemic and its risk for public health.

Therefore, not ensuring that AIDS prevention and treatment are offered, as well as the necessary resources to access those services, is a threat of regression to collective health.

Besides suffering the impacts of the current crisis with greater intensity, was shown in the results that non-hetero people are also affected by intersectionality – concept that designates interdependence of race, sex and class in power relations (15) - reason that explains the fact that, in the results, the data presented correlate a greater increase in difficulties, which cause a worsening in the quality of life and health of people within some racial ethnic minority group, in addition to being LGBTQIA+. As an example of this, one of the articles states that people belonging to certain racial ethnic minorities had more difficulty in accessing oral HIV prophylaxis, which is a result of a deep historical debt that society has with marginalized populations (22).

As limitations of this integrative review stands out, in large part, the fact that the pandemic is a recent event and although there is already a good amount of produced material on this topic, it is not large when associated with gender and sexual minorities, which hindered further deepening of scientific evidence. Moreover, the researchers did not initially record the total number of articles found in the databases, which prevented a measurement of how many studies were removed by duplicate or because they did not address the proposed theme. In addition, another limitation in this study is due to the fact that the search criteria used may have somehow curbed the possibilities for research.

CONCLUSION

It is believed that this research is extremely important for scientific knowledge, with regard to LGBTQIA + health, in view of the need for an inclusive service based on the health specificities of this population. Besides that, Regarding mental health, it is emphasized that the LGBTQIA + community already presents a significant vulnerability, which, in the context of the pandemic, is heightened, since sexual and gender minorities are more susceptible to substance abuse - alcohol, cigarettes and illicit drugs - to anxiety disorders and depression. In addition, due to the consequent social isolation, access to HIV prophylaxis and treatment drugs is hampered, which, in turn, can lead to a setback in the fight against infection with this virus. In this way, the integrative review leads to the conclusion that the end of the pandemic should not be expected for the provision of healthcare to the LGBTQIA + community and, therefore, it is essential to carry out more research involving these people, in order have greater evidence of how to meet their particularities.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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THE IMPACTS OF COVID-19 ON THE QUALITY OF TREATING PATIENTS WITH CANCER AS A PUBLIC HEALTH ISSUE: AN INTEGRATIVE REVIEW

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Keywords: Coronavirus Infections; Neoplasms; Therapeutics.

INTRODUCTION

The outbreak of the disease COVID-19 (Corona Virus Disease), expanded rapidly to pandemic proportions, being considered by the Director General of the World Health Organization (WHO) as a Public Health Emergency of International Importance (ESPII).(1)The transmissibility of this disease occurs from individual to individual through respiratory secretions and contact (with surfaces or people), mainly through sneezing and coughing, and some dissemination may occur even before the infected individual has any symptoms.(2)

As a result of this health emergency, individuals with underlying diseases, such as cancer patients, are at a greater risk of infection and severe morbidity, presenting a 3.5 times greater need for ventilatory support, admissions to the Intensive Care Unit (ICU) or death, in comparison with patients without comorbidities.(2) This scenario becomes worrying since health resources have been restructured to manage the large flow of patients infected with SARS-CoV-2 who need intensive monitoring and artificial ventilation, leading to a sudden interruption in the treatment of cancer patients.(3)

The increased risk in cancer patients occurs mainly due to their immunosuppression status as a result of the effect of chemotherapy, radiation therapy and surgery. In addition, this group constantly needs medical monitoring and hospital assistance for their treatment, which puts them at risk due to the crowding of hospitals of individuals infected with the novel coronavirus.(4) Another aspect that affects the treatment of these patients is the indirect consequences of quarantine, since strict social isolation is recommended, which causes psychosocial/spiritual losses in patients, causing changes

in their diet and exercise routine and negatively impacting the immune response of the individual.(5)

In this perspective, institutions and health professionals have developed guidelines to be put into practice, in order to reduce the exposure of cancer patients to the virus⁶. Some of these guidelines involve the creation of COVID-19 free hospitals for patient care, the division of patients by priority level of treatment and the use of telemedicine, in order to maintain physical distance and minimize the exposure of patients to potential infected individuals inside and outside hospitals.(7,8)

In line with the information above, the objective of this review was to verify at what level the COVID-19 pandemic had an impact on the quality of treatment of cancer patients, considering that the changes and adaptations that have occurred in the therapeutic resources of people with cancer have resulted in a generalized drop in the efficiency of consultations, therapies, surgeries, transplants offered and playful practices. It is intended to emphasize that such factors are extremely important for the full care of individuals with cancer, needing to include the continuous monitoring of them, even by virtual means, and to provide palliative measures of medical and hospital security for face-to-face care, which reduce the risk of infection with the new coronavirus.

METHODS

The present study aims to synthesize results obtained in research, in a systematic, orderly and comprehensive manner, consisting of an integrative review about the impacts of COVID-19 on the quality of the treatment of cancer patients, carried out.

Title	Author	Year of publication	Bibliographic base	Main subject
COVID-19 y Cáncer de Mama. ¿Debemos cambiar las estrategias de prevención, control y tratamiento o, inteligentemente, racionalizar nuestra práctica?	GONZÁLEZ, E. et al	2020	BVS	Alternative chemotherapy maintenance measures for breast cancer cases and criteria for postponing or stopping it during the pandemic.
Summary and considerations in genitourinary cancer patient care during the COVID-19 Pandemic	RODRÍGUEZ-COVARRUBIAS, F. et al	2020	BVS	Social psychological consequences caused to cancer patients by COVID-19.
Recommendations of individualized medical treatment and common adverse events management for lung cancer patients during the outbreak of COVID-19 epidemic	ZHAO, Z. et al	2020	BVS	Importance of developing specific treatments for patients, considering the stage of the disease and the vulnerable conditions of lung cancer.
Ph+ Acute Lymphoblastic Leukaemia in Italy During the Covid-19 Pandemic. A Campus ALL Study	FOÁ, R. et al	2020	PubMed	Clinical management of cancer patients who were infected with COVID-19 and specific treatment measures.
Patients with Cancer Appear More Vulnerable to SARS-CoV-2: A Multicenter Study during the COVID-19 Outbreak	DAI, M. et al	2020	PubMed	Explanations for facilitated contamination of cancer patients by COVID-19, differentiating the type of cancer according to the severity that may be caused.
Prehabilitation Telemedicine in Neoadjuvant Surgical Oncology Patients During the Novel COVID-19 Coronavirus Pandemic	SELLI, N. M. et al	2020	PubMed	Importance of telemedicine for continuous patient monitoring and the use of playful practices to mitigate the social impacts of the pandemic on cancer patients.

Figure 1 - Specifications of the research used to compose the work. Own source.

The searches were carried out in August 2020 in the bibliographic bases: Biblioteca Nacional de Medicina e Instituto Nacional de Saúde (Pubmed) and Biblioteca Virtual em Saúde (BVS). The descriptors used for searching the articles were "Coronavirus Infections", "Neoplasms" and "Therapeutics", connected with the Boolean operator (AND).

Among the applied filters are: scientific articles made available in full for free; published in 2020 - a period associated with the emergence of the first case in the world of COVID-19, in December 2019, and the beginning of the pandemic decreed in March 2020 and chosen because of the scarcity of old research on the subject, since there was no scientific information based on SARS-CoV-2 before 2020.

National and international articles were included; in English, Portuguese and Spanish; clinical and surgical approaches, studies available online and free of charge and with the central theme related to changes in the treatment of people with cancer. Therefore, repeated works, review articles and publications that did not deal with oncology protocols during the pandemic, carried out before the year 2020, were excluded.

Finally, a qualitative analysis of titles and abstracts was carried out, with the screening done using filters and

criteria and, finally, six documents were selected to compose the following review. (The main data about the articles can be found in Figure 1).

RESULTS

Initially when searching with the descriptors, 354 articles were found in Pubmed and eight in the VHL, totaling 362 articles. Among these, 348 were excluded from the sample after applying the filters, reducing the number of articles to 14, of which eight were in Pubmed and six in the VHL. Applying, in sequence, the inclusion and exclusion criteria detailed above, the number of studies was reduced to six: three in PubMed and three in the VHL. (As we can summarize by the flowchart in figure 2).

In sequence, the texts were read in full and the six previously mentioned articles were selected for analysis by four researchers, which allowed the verification of the following information: author, year of publication, journal and main subject. In addition, we used some guiding criteria, acquired from the convergent opinions of the authors, which we represent in figure 3.

The worrying fact that cancer patients have a higher risk of developing complications due to COVID-19, such as admission to the ICU, invasive ventilation and death, is evidenced by many of the studies.(10-14) The central idea

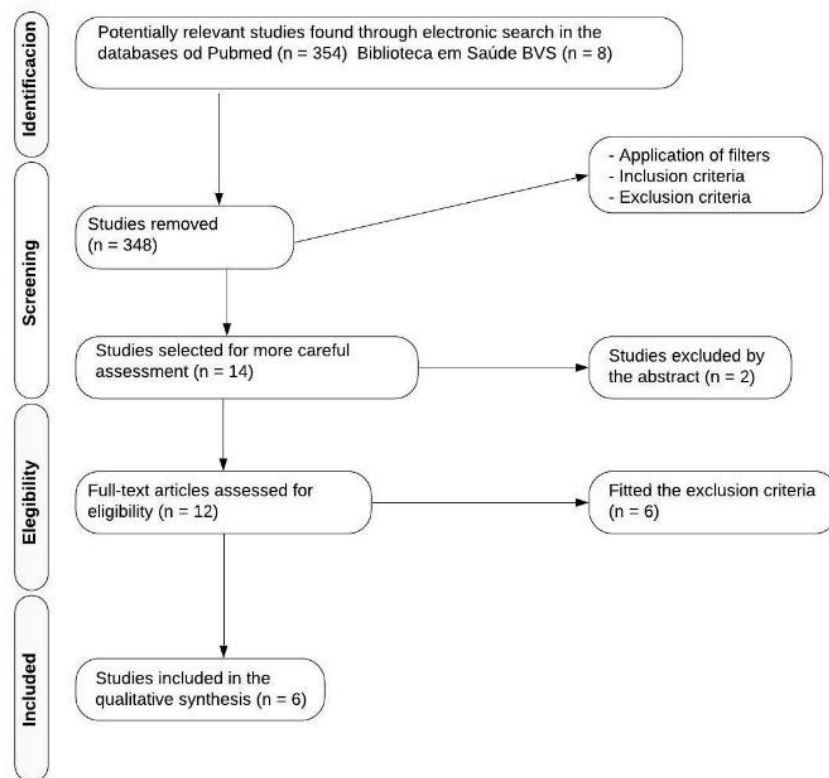


Figure 2 - Stages of research in electronic databases. Own source. It consists of a flowchart responsible for detailing the selection process of the articles to be used in the review, indicating the steps that led to the inclusion of six articles and the exclusion of the others.

is to reduce the number of outpatient visits to a safer level, changing the current risk scenario that worsens the health status of many patients.(10-13) For this, the authors considered the use of telemedicine, a practice that reduces the number of outpatient visits in the hospital.(11,14)

There was unanimous recognition of the need to create or adapt effective methods to maintain the treatment of symptomatic patients with active disease or those at high risk of progression, if the treatment has already started, since social withdrawal, by itself, already causes a slower response to medication.(11) Furthermore, the postponement is considered only for indolent tumors and for asymptomatic patients without active treatment, and it is possible to accept interruption of maintenance therapy if the disease improves in remission.(9-14) The decision must be shared with the patient, weighing the high risks of progression and / or infections that the novel coronavirus predisposes in the hospital environment.

Another damage caused by the pandemic widely discussed among the authors was the increase in complications in patients undergoing surgical procedures at that time, such as increased risk of infections and greater post-surgical stress.(9,12,13) For this reason, some of the studies analyzed highlight important aspects concerning the regrettable need to postpone elective surgeries, taking into account the patient's situation, as well as the care that the medical team must take when handling a patient infected with the novel coronavirus, especially if there is a need to contact the patient nasal

mucosa (region with a high level of dissemination of viral material).(9-13)

It was also noted the importance of diagnosing cancer in this pandemic moment, and it is worth emphasizing that a solid medical judgment must always be maintained and avoid immediately associating the patient's symptoms with Covid-19, in order to facilitate the delivery of a treatment. previous and of quality to the individual.(10,12) Thus preventing their exposure to treatments that may be rejected due to immunodeficiency.

In addition, the consensual need for continuity of treatment for patients with severe cancer is emphasized, in addition to the imminent exhaustion of resources of all kinds and probable capacity of hospitals by patients infected with the new coronavirus, factors that hinder the effectiveness of the means used. As a solution, the Brazilian Society of Oncological Surgery (SBCO) strongly recommends the creation of COVID-19-free pathways for the care of patients with diseases not related to the current pandemic, called COVID-19 Free Units.

DISCUSSION

The general agreement between authors regarding the harm caused to cancer patients became evident due to the scenario shaped by the current pandemic of COVID-19.(9-14) Such harm results, according to the results obtained, from multiple complications from various stages of treatment of cancer patients, from problems in

Guiding aspects of the treatment of cancer patients	Before the pandemic	During the pandemic
Diagnosis	Based on existing guidelines.	Need to establish a differential diagnosis, avoiding associating the symptoms necessarily to Covid-19.
Consultations	Presential and constant.	Use of telemedicine to maintain social isolation.
Surgical interventions	Performed in line with the patient's condition.	Need to postpone elective surgery due to increased risk of infection and increased post-surgical stress.
Chemo/Radiotherapy	Performed normally according to the needs of each patient.	Maintained only in the treatment of symptomatic patients with active disease or patients at high risk of disease progression, if already started.
Psychological situation	The presence of face-to-face consultations, the possibility of practicing activities in open environments and social relationships contributed to the patient's psychological situation.	With the detachment of ties, social isolation and quarantine measures, there was a greater psychological difficulty in patients.

Figure 3 - Aspects to be considered to expose the changes caused by the pandemic and its consequent impacts on the treatment of cancer patients. Own source.

diagnosis to prognostic difficulties, passing through the other therapeutic stages.

Regarding the problems in the diagnosis phase, the importance of early detection of Covid-19 cases among people who are being treated for cancer(10) was emphasized, in order to, in addition to treating them, avoid contamination from other patients and health professionals. However, there is a clear emphasis on the need to establish a differential quality diagnosis, since the symptoms of SARS-CoV-2 are similar to several other diseases - such as lung cancer - which can cause a delay in the diagnosis of the cancer patient, compromising the individual's treatment and, consequently, a good prognosis.(10)

Besides, one of the main points discussed in studies on this theme corresponds to the indispensability of keeping the cancer patient as far as possible from the hospital environment, with the aim of avoiding his infection by nosocomial Covid-19, whereas, in this way, burdens the health system.(9-13) For this, several strategies were suggested, namely: the creation of hospitals free of the novel coronavirus with exclusive care for people with cancer⁷, adoption of therapies that can be performed by the patient in their own home (oral chemotherapy or

employing an infusion pump, for example),(10-12) use of telemedicine as a virtual method of doctor-patient interaction(10,14) and, finally, the postponement of elective surgeries taking into account the specifics of each case.(9,12,13) However, it is essential to emphasize, still, that the maintenance of chemo or radiotherapy is recommended, if the treatment of the patient has already started.(11,13)

Another aspect to be highlighted is the significant interference that the new Coronavirus pandemic caused on the well-being of cancer patients, in several different dimensions (biological, psychological, social)(10), which are already naturally affected by cancer, but which are accentuated by a scenario of interruption or modification of treatment,(9) in order to adapt the treatment of patients to the new guidelines arising from the Covid-19 outbreak.

The low number of research materials on the subject is emphasized as a limitation for the elaboration of the work, mainly due to the current context of the pandemic. Since the first case of SARS-CoV-2 infection appeared in December 2019, there was no research prior to that date. In addition, considering the start of the pandemic in March 2020 and the time required to prepare scientific

documents, many of these are still in the development process.

CONCLUSION

It was evidenced that the changes in the follow-up of the resulting cancer patients and the factors inherent to the context of social isolation resulting from the pandemic of COVID-19, worsened, in general, the quality in the treatment of neoplasms and, consequently, harmed, physiologically and psychologically, the living conditions of many individuals affected by cancer. With this - considering the difficulty exposed in reformulating medical guidelines and in guaranteeing the necessary medical-hospital structure - it is believed to be essential to improve the telemedicine support methods and encourage the humanization of medical care and other face-to-face activities in return for such patients. Under this situation, it is important to ensure the safety and hygiene of the consultation, surgery and recreational practices environments. Finally, it is emphasized that the data, studies, analyzes and conclusions presented seek to provide theoretical and scientific basis for future research - clarifying the impacts generated by the pandemic on cancer treatments and the need to mitigate such problems - aiming at well-being cancer patients and encouraging the joint action of researchers and health professionals in general.

CONFLICT OF INTEREST

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GENDER-BASED VIOLENCE IN THE COVID-19 PANDEMIC: A REVIEW ON HOW THE SOCIAL DISTANCING AFFECT THE NUMBERS OF DOMESTIC VIOLENCE

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Keywords: violence against women; gender-based violence; social isolation; COVID-19.

INTRODUCTION

The COVID-19 pandemic, a new strain of coronavirus, demanded from governments around the globe to take preventive measures to control the virus outbreak. Among the established recommendations, the social distancing was recommended by World Health Organization as the most effective to contain the virus spreading, avoiding the exponential growth of the number of cases and the overload in healthcare services.(1)

The social distancing recommendations affected several segments of society, causing economic and social tension that coupled with the movement restrictions, led to a dramatic increase in the number of girls and women in a violence situation (United Nations, 2020). In this context, social distancing reveals alarming numbers regarding domestic violence, especially against women. It's estimated that, globally, 30% of the women experience physical or sexual violence caused by their partner in their lifetime.(2)

The Human Rights Ombudsman, part of the Woman, Family, and Human Rights Ministry, points that out of the 3.739 women's homicides registered in 2019 in Brazil, 1.314 (35%) were categorized as femicide - in other words, every seven hours another woman is killed because of gender-based violence. Analyzing the victim's relationship with the perpetrator, it reveals that 88% were committed by their own partners or former partners. (3)

Besides, the enormous requirement of healthcare services and the challenge to contain COVID-19 number of cases led to a reduced offer of support services to victims of intimate partner violence (IPV), notably the social assistance, public security and justice. During the pandemic, this event occurs along with the decrease in

the search for help, because the victims aren't able to reach for the services due to fear of infection, promoting the maintenance of physical, psychological and sexual abuse they are suffering.(4)

It must be emphasized that the emergency restrictive measures during this period increase the housework to women, historically affected by the patriarchal social structure in which they must have a larger dedication to household functions, such as caring for children, elders and sick members of the family. This matter, along with social isolation, disruption of livelihood caused by the economic tension and the instability, creates an enabling environment to the exacerbation of the power and control held by the perpetrators.

Considering this scenario, this review aims to analyze the side effects of the social distancing measures on the numbers of domestic violence during the COVID-19 pandemic, reflecting on the different sides of this phenomenon.

METHODS

This study is a narrative literature review based on data from Electronic Databases PubMed, Lilacs and Google Scholar. The search terms consisted of domestic violence, COVID-19, social isolation and pandemic. The inclusion criteria were qualitative or quantitative studies, booklets, articles, dissertations or literary journals that focused on domestic violence and gender-based violence or IPV within the COVID-19 pandemic. Exclusion criteria were studies that didn't approach IPV nor brought gender-based violence as part of the main theme.

RESULTS

There were 12 articles selected for analysis. Regarding the potential predisposing factors that lead to IPV, some issues stand out when the increase of domestic violence

cases due to COVID-19 pandemic is investigated. Those are: circumstantial unemployment, low socioeconomic status, low educational levels and past of violence in childhood.(5-7) The analysis points out that young individuals are even more prone to be victims of violence or perpetrators.(8)

Furthermore, the precarious conditions of housing and family structure of the victims, combined with the need to be isolated were understood in all the publications analysed as central causes to a domestic violence outcome, having negative impact in their reports.

Concerning the abusers, the studies highlight the relation between IPV with depressive symptoms, post-traumatic stress disorder, personality disorders, including anti-social and aggressive behavior, borderline disorder, as well as the abuse of drugs and alcohol⁶. Researches suggest also that, although the majority of perpetrators are not affected by those conditions, the pandemic scenario may lead to a larger amount of more acute and potentially dangerous outcome.(9)

In terms of domestic violence reported by telephone, with or without use of an exclusive helpline, wasn't observed a specific pattern of variation, even though it was highlighted in most of the reports. China, United Kingdom, Spain and Cyprus registered an increase of report calls. (4,10,11) On the other hand, Italy, the first Western country to be a pandemic epicenter, had a sensitive decrease in the phone calls for the helplines. In Brazil, there was an increase of 18% in the number of the registered reports.(3)

Moreover, it is reported a significant mitigation in healthcare support related to non-COVID-19 patients. It was observed, also, pronounced reductions in funding for specialist gender-based violence public health services and, for the survivors of these aggressions, reduced access to healthcare services.(12)

DISCUSSION

The analysis of the bibliographic references outlined that the new strain of coronavirus intensified the disseminated domestic violence pandemic experienced by women from different cultures around the world. Hereinafter, the main aspects of this matter will be discussed.

4.1. DEMOGRAPHIC AND SOCIOECONOMIC INDICATORS

In this outlook, low socioeconomic status and unemployment are related to the increase of risk of abuse, since the employment and the source of income act as a protective factor to women.(13) Furthermore, the majority of the studies point out the low educational level as a risk factor to IPV as a victim or a perpetrator. Young

individuals seem to be more exposed to be the victim or the perpetrator of domestic violence.(5,6)

4.2. HOME ENVIRONMENT

The place where most frequent abuse related to IPV takes place is inside home(14) Within this context, the restrictive measures to movement, such as the lockdown, may expand control, coercion and surveillance tactics by the aggressor.(15,16) By way of illustration, many strategies from the abusers to maintain the victim enclosed home are reported, such as providing false medical informations to avoid the access to healthcare services and, moreover, report that the victim is infected with COVID-19 to justify the enclosure and avoid these victims to reach for their support network, composed by family or friends.(17) Likewise, a larger contact due to home office or distance learning, may potencialize the stress in the home environment inflicted by other issues, such as provision for the household.(6,7,8,15)

4.3. MENTAL HEALTH INDICATORS

The mental health categories related to domestic violence get a new perspective amidst the current global health crisis. Not far of the considerations aforesaid, the outcomes of the population submitted to strict social distancing are not well elucidated.

To witness or to have a previous history of violence in childhood can be a powerful predictor of a potential victim or aggressor in the adulthood.(18). The overwhelming majority of IPV cases is related to social and cultural standards, gender roles and a higher tolerance to violence rather than any other preexisting medical condition.(14,17) In the perpetrators case, however, studies have shown IPV related to depression symptoms, PTSD, personality disorders, behavior alterations and drugs and alcohol abuse.(15,19) In view of that, it's discussed, under a first analysis, this context may work as a way to evade the therapeutic follow-up, being a psychiatric support or the use of psychotropic drugs, leading this potential perpetrator to a more acute and potentially danger circumstance.(9)

4.4. REPORTS

The number of reports in the brazilian scenario seem to follow a global trend. Already in the first week of the pandemic, the national numbers from the Human Rights Ombudsman, from the Woman, Family and Human Rights Ministry, revealed a 18% increase on the reports through telephone calls in the country. In Rio de Janeiro, data from the State Public Ministry reveal a 50% raise on the domestic violence cases already in the first weekend after the state decree that proposed social distancing, being most reports related to violence against women.(9) This

growth was observed in countries such as Australia, Spain, United Kingdom and Cyprus.(3,15)

The Chinese scenario, that anticipated strict isolation and a fast pandemic control, presented sensitive growth in the number of domestic violence cases, especially women that had to stay with their abusive partners for months. Several reports reveal the reverberation of the IPV in the children. In Jianli County, Chinese province of Hubei, the police department reported a tripling in the amount of domestic violence cases comparing February 2019 with February 2020, estimating that 90% are related to the COVID-19 pandemic.(21) In India, the social distancing measures were applied in March. In accordance with the statistics released by the National Commission for Women (NCW), in early April of 2020 there was an increase of 100% of the reports related to violence against women.(9,10,22,23)

Italy, different from the global tendency, registered a decline in the number of phone calls to the special helpline to domestic violence and gender-based violence.⁶ The constant contact with the perpetrator, the shortened contact with other people and all the other issues here identified are discussed as possible causes to the decrease of the numbers.(9)

Digital tool using as an alternative to inform and denunciation can be explored as a possible counterpoint to new limitations. Google searching related to help in case of domestic violence has risen to 75%.(24) Refuge, a British organization that seeks to support victims, had a 150% increase of website visitation and a 25% increase of phone calls in their helpline only 7 days after the isolation measures were announced by the United Kingdom government.(22,24)

4.5. ACCESS TO HEALTHCARE AND PATIENT-PHYSICIAN APPROACH

If the pandemic context made evident the healthcare issues in a general mode, specialized services in gender-based violence face, as a result, reduced funding, professionals overloaded and changes in the ability to answer to diseases.(18)

The victims feel discouraged to search for medical assistance because - apart from the reasons mentioned, such as threats and psychological abuse by the aggressors - fear of being infected, of contributing to disseminate the virus or even add more demands upon a overcrowded health system.(6,12)

Those who obtain medical assistance have to deal with another obstacle: the new perspectives on the patient-physician relationship. The use of masks and other personal protective equipment (PPE), as long as the use of other technologies for the telehealth practice, become

the trust and empathy building, essential tools for this handling, really challenging. Besides, the recognition of the indicative signs of violence is affected.(18)

CONCLUSION

As discussed, risk factors that lead to domestic violence based on gender are potentialized in the landscape created by the social distancing actions to contain the coronavirus, creating a pandemic inside another pandemic. Based on this, active measures to improve surveillance and domestic violence management must be an essential part in the fight against COVID-19. Therefore, campaigns through different media vehicles to raise awareness of the society in general, that might include information about the Violence Cycle, helplines, shelters and legal assistance available to women. Lastly, emergency shelters to provide the IPV survivors protection and safety from the aggressors must be considered also.

CONFLICT OF INTEREST

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IMPORTANCE OF EVIDENCE-BASED CLINICAL PRACTICE DURING THE COVID-19 PANDEMIC: AN INTEGRATIVE REVIEW

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KEYWORDS: "Pandemics"; "Medical Education"; "Clinical Decision Making".

INTRODUCTION

In just a few weeks, the COVID-19 (Corona Virus Disease) pandemic brought up discussions about traditional aspects of patient care as opposed to evidence-based clinical practice. The current public health crisis, reflected by the high morbidity and mortality due to COVID-19, leads health professionals to reflect on the need to change the practice of doing health since it is fragile and fragmented (1).

The hegemonic model of medical education is still a reality in many important medical education centers worldwide. This model is focused on the hospital-centric perspective of patient treatment and its performance is generally fragmented (2). This training system for health professionals may be in conflict with the current epidemiological context experienced by most countries in the world, since medical conduct may not be in line with the recommendation of scientifically effective non-pharmacological interventions in addressing the pandemic of COVID-19 (3).

However, regardless of the established medical training model, holistic patient care and evidence-based clinical decision-making, with its strongest pillar "evidence-based medicine" (EBM) allows the physician to use meticulous, judicious prioritization, explicit and reasonable of the best scientific evidence published in journals in the area (4).

The present work aims to carry out an integrative review about medical training and evidence-based clinical practice in the context of the COVID-19 pandemic according to national and international scientific publications.

METHODS

An integrative bibliographic review on medical training and clinical practice based on scientific evidence was carried out from 2014 to 2020. The methodology of the integrative review aims to identify and synthesize published works on the mentioned topics. To expand access to national and international articles, descriptors (Decs) and bibliographic bases VHL, PubMed, SciELO and Google Scholar were used. Journals were searched using descriptors in English, Portuguese, Spanish and Italian. The terms used in the search were: "Evidence-Based Medicine", "Pandemics", "Medical Education", "Clinical Decision Making" and "Public Health" in a combined way through the Boolean operators AND and OR. The descriptors were grouped as follows: "Evidence-Based Medicine" OR "Clinical Decision Making" AND "Pandemics"; "Evidence-Based Medicine" AND "Medical Education"; "Pandemias" AND "Public Health". Articles were selected published articles that presented title and abstract in accordance with the objective of the work, which were later read in full. Articles whose access was restricted only to abstracts or which were in other languages were excluded. Other areas of health (for example, Nursing or Pharmacy).

RESULTS

The bibliographic review allowed gathering 33 articles for the theoretical foundation, of which 13 were used for the argumentative construction of this review. The other articles, although having a title and summary according to the objective of the work, were disregarded, as they were not relevant. Of the 13 articles found, 3 were taken from the Virtual Health Library (VHL), 3 from PubMed, 1 from Scielo and 6 from Google Scholar. Regarding the source, of the 13 articles, 8 were published in one of the

Title	Autors	Objective/method	Results/Discussion	Conclusions
<i>Covid-19: Exposing the Lack of Evidence-Based Practice in Medicine</i> ⁽¹⁾	Reisman J, Wexler, A	Point out the lack of evidence-based practice by doctors during the COVID-19 pandemic.	The COVID-19 pandemic has revealed a distance between clinical practice and scientific knowledge, which means that many doctors have adopted pharmacological and non-pharmacological interventions that have not been scientifically validated in their clinical decisions, thus disregarding possible risks to their patients, even if these may be minimal.	After the pandemic, it will be difficult for doctors and patients to return to standards prior to COVID-19. Health systems must be providing high-quality evidence-based care.
Will COVID-19 be evidence-based medicine's nemesis? ⁽⁵⁾	Greenhalgh, T	Describe the behavior of evidence-based medicine and its applicability in the pandemic context caused by COVID-19	The search for objectives of certainty, predictability and linear causality (logic of EBM) can only be applied in some situations. Furthermore, intervention studies should focus on reducing critical uncertainties, non-randomized study designs should be adopted rather than tolerated and that a more subtle approach to assess the usefulness of different types of evidence is needed.	While it is difficult to make accounts and predict events in real time, it will become clear over the years whether the practice of evidence-based medicine has helped or hindered the public health response to Covid-19, or whether the lowering of standards to accommodate "practice based on in evidence" was a more effective strategy.
Diretrizes para o tratamento farmacológico da COVID-19. Consenso da Associação de Medicina Intensiva Brasileira, da Sociedade Brasileira de Infectologia e da Sociedade Brasileira de Pneumologia e Tisiologia ⁽⁶⁾	Falavigna M, Colpani V, Stein, C, Azevedo, LCP, Bagattini, AM, Brito, GV	This article seeks to make evident scientific information based on evidence so that it can subsidize decisions regarding the treatment of COVID-19 and decrease the variability of conducts, through the implementation of analysis by PICO that used 11 recommendations.	The majority of the drugs currently used have low scientific evidence for their use, and some of these drugs do not decrease mortality as expected, but provide different effects, such as adverse cardiovascular events (hydroxychloroquine).	Several drug proposals, such as ivermectin and remdesivir, have been studied, but this article has raised the most pertinent doubts regarding pharmacological interventions, requiring the analysis of other sources due to the great expansion of knowledge regarding COVID-19, and this can make recommendations out of date in a short period of time.

Table 1 - Presentation of summary of the articles used in the integrative review

following journals: Westing Center Report, Plos Medicine, Brazilian Journal of Intensive Care, Revista Médica de Minas Gerais, Science on the agenda, Revista Docência do Ensino Superior, Recenti Progressi in Medicine, Biomed Central and Journal of the Royal College of Physicians of Edinburgh. The non-periodical articles corresponded to the guidelines of the Pan American Health Organization, to a collaborative study between the Health Technology

Assessment Center of the Hospital Moinhos de Vento Association (NATS-HMV) in association with the Assessment Center of Health Technologies at Hospital Sírio-Libanês (NATS-HSL) and the Health Technology Assessment Unit at Hospital Alemão Oswaldo Cruz (UATS-HAOC) and an article by the Brazilian Society of Family and Community Medicine. Tables 1,2,3 and 4 show the syntheses of the studies used in this review.

Title	Autors	Objective/method	Results/Discussion	Conclusions
<i>Based medicine indifference</i> ⁽⁷⁾	Raso, JL	Explain some of the reasons why evidence-based medicine has difficulties in spreading in the field of clinical practice.	Evidence-based medicine presented as barriers to its dissemination the excess of medical work, subspecialization, the discrepancy between developed and undeveloped countries regarding the application of what is taught and the low quality and relevance of a publication in a journal.	The authors noted that there are many barriers to overcome for the spread of EBM practice, and that the countries that face the most difficulties in this field are developing countries where the evidence often does not come from randomized studies.
Medicina baseada em evidências e a pandemia pela COVID-19 ⁽⁸⁾	Ferreira, RES, Pacheco, R,	Describe evidence-based medicine based on the evidence pyramid and according to its pillars which are clinical experience, the best scientific evidence and the patient's values and desires	In the present study, it was evident that the best ways to have evidence for decision making are systematic reviews followed by randomized trials, which are at the top of the evidence pyramid.	Therefore, there is a need for well-designed randomized clinical trials to best understand the effects of an intervention in order to know the prognostic factors of patients with COVID-19.
Educação Médica no Brasil: uma Análise Histórica sobre a Formação Acadêmica e Pedagógica ⁽⁹⁾	Daminelli C, Machado B, Wuo A, Heinze M	Expose a brief historical analysis of medical education in Brazil through its academic evolution.	In the last decades, new teaching models have emerged as an option for the training of medical professionals, who are involved with the current concepts of health and disease, aimed at meeting social demands.	Regarding changes in medical professional training, changes in curricular architectures do not seem to be enough, as isolated agents, in changing the profile of professionals.
Aprendizagem baseada em problemas: integrando a prática com a teoria no ensino da Medicina Veterinária ⁽¹⁰⁾	Vidor, SB, Silveira, E, Contesini, EA, Faria, ET	Analyze the importance of professional training and present Problem-Based Learning (PBL) as an alternative of active teaching methodology and EBM as a critical approach to the scientific knowledge produced.	PBL is aligned with EBM, under the professional's ability to ask questions and verify the validity of these data to make his decision, relating clinical experience to the rational application of scientific knowledge.	The training pillar must also be centered on EBM, where the future doctor's clinical skills allow the use of clinical experience with the knowledge of scientific research to improve the global capacity to make decisions through the rational application of scientific information.

Table 2 - Presentation of summary of the articles used in the integrative review

DISCUSSION

Since the Renaissance and the Scientific Revolution since the 16th century, rational thought has been the basis of scientific knowledge. However, the new coronavirus pandemic (SARS-CoV-2) has brought to light clinical practices that ignore ethics and reveal purely emotional decisions based on beliefs rather than science (17). These decisions can be explained by the fact that the international public health emergency is a new etiological agent whose natural history of the disease has many scientific gaps, in addition to the high morbidity and mortality of COVID-19 and the strong pressure that the pandemic exerted on the health care systems in many countries. One of the consequences of the fragility of scientific information during the pandemic was the distancing of physicians from evidence-based clinical practice (3). Other factors hampering the application of MBE are: the large amount of information that professionals are submitted daily and the difficulty in

dealing with impotence in view of the severity of the disease (7)

In a pandemic context of a new disease that spreads rapidly and has numerous socioeconomic consequences, such as the case of COVID-19, doctors can conclude that the evidence-based medicine approach is time-consuming and it is more objective and effective to rely only on specialists and / or government health agency (16,18). However, this decision can be problematic since the politicization of issues related to the pandemic has pointed to its continuity and non-resolution, in addition to minimizing the credibility of scientific studies and the rigorous scientific method. Such methods guarantee clinical decision based on the best scientific evidence currently available through the use of safe, effective and efficient pharmacological or non-pharmacological interventions (19).

Title	Autors	Objective/method	Results/Discussion	Conclusions
<i>Safety of COVID-19 Patients and Use of Medicines without Scientific Evidence of Their Benefit</i> ⁽¹¹⁾	Pan American Health Organization	Analyze the effectiveness of pharmacological interventions for the treatment of COVID-19	The combination of chloroquine/hydroxychloroquine and azithromycin causes possible adverse effects, such as serious cardiovascular effects.	There are no safe and efficient specific treatment options for COVID-19. The pressure imposed by the current situation, makes doctors fall into the false perception of potential alternatives under study may be better than the care and support of symptoms, without considering the scientific evidence available, putting the safety of patients at risk while distancing themselves from bioethical principles.
Associação hidroxicloroquina e cloroquina e azitromicina para Covid-19: Revisão sistemática rápida ⁽¹²⁾	Stein C, Falavigna M, Pagano CGM, et al.	A systematic review that aimed gather and evaluate the best scientific evidence on the efficacy and safety of the use of hydroxychloroquine / chloroquine in combination with azithromycin for COVID-19	After analyzing 11 studies and 13 clinical study protocols in progress, the benefit of the hydroxychloroquine/chloroquine and azithromycin combination is still limited	The use of these drugs for patients with SARS-CoV-2 infection is neither effective nor safe, and their effects are still very uncertain.
<i>Il re nudo nella pandemia: sulla produzione e comunicazione del sapere scientifico ai tempi di SARS-CoV-2</i> ⁽¹³⁾	Alderighi C, Rasoini R	Randomized and controlled study in order to analyze the production and communication of scientific knowledge during the pandemic.	The pandemic highlighted the modalities of development, as well as the communication of scientific knowledge. Economic interests have helped to generate and disseminate unreliable information about hypothetical medical interventions for CoVID-19, decreasing people's ability to make safe decisions. In addition, this situation resulted in even fewer trained people being part of the evidence-building process.	It is possible to educate the population about health care since primary school, disseminating information to everyone through solid resources that provide reliable information about the effects of treatments.

Table 3 - Presentation of summary of the articles used in the integrative review

Although in the beginning of the pandemic, the physicians lived with insecurities about their decision making since there were many scientific gaps about Sars-CoV-2, today this reality is different due to the fast execution of consistent clinical studies and clinical trials in several countries in the world (11,12,13). Even so, many professionals insist on maintaining dogmas and convictions, abandoning scientifically based practices, which not only reduces the credibility of science in the face of demands (20), but also puts the population's health and well-being at risk.

Since the beginning of the pandemic, some doctors have adopted drug protocols and therapies with a variety of drugs and with different dosages (for example: hydroxychloroquine, azithromycin, ivermectin and remdesivir), even without proof of the efficacy and safety of these drugs in the treatment of COVID-19 (11,12,13). It is evident that the decision-making of professionals is not always guided by EBM with the objective of promoting health to patients with interventions validated by science. Professional conduct is often guided by economic and

political interests, which leads to the dissemination of hypothetical and poorly based information about the therapy against SARS-CoV-2, many of which have proved to be of little use or even unreliable (13). It is perceived, then, the need for impartial scientific research and systematized by rational thinking aiming to move away from science and, consequently, from clinical practice, situations in which personal interests, emotions, fantasies and quackery may interfere in the medical decision (21).

Many doctors have moved away from scientific knowledge to embrace methodologies and practices that border on common sense. Today, society yearns for the "new", so much so that it is believed that in medicine the application of new technologies (treatments, laboratory tests, vaccines and procedures) will always be beneficial to the patient (22). This idea, besides being very simple and shallow, reveals a profound lack of knowledge among doctors about the safest evidence, including repeating errors that eventually worked. This misunderstanding reflects the application of the Flexnerian model in most medical schools (2,9), and in this methodological scheme

Title	Autors	Objective/method	Results/Discussion	Conclusions
<i>Medical overuse and quaternary prevention in primary care - A qualitative study with general practitioners</i> ⁽¹⁴⁾	Alber K, Kuehlein T, Schedlbauer A, Schaffer S	Obtain a deeper understanding of the relevant aspects of drug overuse in primary care from the perspective of German general practitioners, through a qualitative approach.	Excessive use of medications is an unnecessary treatment that does not benefit the patient. German primary care did not have a clear role, with many patients going directly to secondary care and having specialized treatments without evident medical indication.	General practitioners are almost always at the entrance to treatments, showing a high power to play a vital role in quaternary prevention.
<i>Cognitive bias clinical medicine</i> ⁽¹⁵⁾	O'sullivan, ED, Schofield, SJ	This article discusses and illustrates numerous biases that occur in clinical practice and considers potential strategies that can be used to mitigate the effect of "dual process thinking".	Among the different aspects for the distance between medical practice and EBM, there is the difficulty of the doctor in dealing with the urge to do something, whatever it may be, even though there is no scientific evidence of the effectiveness of the intervention to be adopted .	The current challenge is to exceed the findings for educational and clinical settings. The literature lacks long-term studies with follow-up data that show any lasting intervention.
<i>Prevenção Quaternária e Bioética em tempos de Covid-19</i> ⁽¹⁶⁾	Lima, R	Elucidate the bioethical aspects and the concept of quaternary prevention to support decision makers, who must propose "ethically acceptable interventions"	The current pandemic situation leaves the most vulnerable part of the population excluded from some bioethical principles. In addition, communities are self-medicating according to the information that is released by the media, causing excessive dosages and intensifying adverse health effects.	Many measures do not integrate the bioethical principles and quaternary prevention has been neglected at this time, giving rise to uncertainties and treatments based on medical intuition.

Table 4 - Presentation of summary of the articles used in the integrative review

the disciplines are isolated and the learning is fragmented, disregarding the patient as a biopsychosocial individual.

Within the scope of this discussion, it is plausible to debate the concept of quaternary prevention and its importance in protecting patients from possibly harmful and ineffective treatment approaches during the covid-19 pandemic. It is known that excessive medical interventions include unnecessary health care that does not benefit patients or may even expose them to some type of risk that outweighs the potential benefits. In addition, they can generate inappropriate use of financial and human resources (15). At the same time, there is a need to consolidate the idea of quaternary prevention among health professionals working in the pandemic, since applying conducts not evidenced by a rigorous scientific method can cause harm to the population (23).

In view of the panorama of uncertainties arising from the global pandemic, another very relevant factor influences the evidence-based clinical practice. Faced with the globalization of information, access by doctors to a large amount of documents with dubious information is frequent and practically unlimited. This information are created and/or reverberates through social media, but it is not always scientifically qualified. The spread of false information occurs in an uncoordinated way and often has no commitment to the truth (13,17). In view of this large amount of information, many doctors make use of

proselytism, inertia and there are still limiting beliefs about "redemptive treatment" (20).

As limitations of the study is the scarcity of publications on the central subject of the study (the pandemic and the evidence-based medical practice) since COVID-19 is a recent epidemiological event and the study period to search for scientific evidence that may result in loss published scientific articles.

CONCLUSION

Given the aspects observed, it is indisputable that science goes through a moment of technical insecurity related to its practices. In this regard, several individuals are suffering the consequences of a teaching and medical practice model, which often intensifies the harm because it is not based on solid evidence. In this study, it was evident that doctors were unprepared in the face of bad weather in the health area, both because they did not adhere to the EBM for decision-making and because of the disbelief in this modality, which insists on being excluded from medical curriculum and contexts. It is essential that quaternary prevention build an imperative in medical interventions, in parallel with the principle of medical ethics: "first do no harm and only then cure".

It is concluded that in the current pandemic, inserted in a vastly globalized world, fallacious information circulates easily among the population and scientific methods are ignored. Doctors have a responsibility to understand,

practice and disseminate scientific methods, as well as an obligation to think over the effectiveness of common sense. The COVID-19 pandemic and the scientific gaps on several aspects highlight in the 21st century that science-based clinical practice has never been more important and necessary in the recent medical history of mankind.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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IMPORTANCE OF TECHNOLOGY IN THE INTEGRATION OF DATABASES FOR COVID-19 NOTIFICATION: A NARRATIVE REVIEW

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Keywords: Coronavirus Infections ; Biomedical Technology; Database.



INTRODUCTION

The new coronavirus, Sars-CoV-2, which produces COVID-19 disease (Coronavirus disease 2019), is the third in the family of coronaviruses to emerge in twenty years and is the first to cause a pandemic. (1) Furthermore, its rapid spread prevented the performance of IgM / IgG serological tests to diagnose the disease in all symptomatic patients, causing underreporting in which, according to previous studies, only 7.8% of cases are reported in Brazil. (2)

It is noticed, however, that the correct notification of confirmed cases of COVID-19 is the most relevant data for understanding the evolution of the disease and, in this way, implementing care and prevention actions. Therefore, underreporting generates an underestimation of the severity of this pandemic, thus compromising the population's adherence to the care and prevention measures, which must be adopted to reduce the risk of contagion.(3)

To circumvent underreporting, the use of technology in the integration of databases is extremely relevant in the current pandemic context. To this end, a Contingency Plan was created by the Department of Informatics of SUS - DATASUS, the strategies of Technology, Information and Communication (ICT) in Health to control the public health emergency situation.

In this context, platforms such as "e-Sus Notifica" were developed, which consists of a record of virtual notifications of suspected cases and which provides an updated epidemiological follow-up, as well as the "Coronavirus Brasil" portal, which offers a panel of confirmed cases, deaths, incidence and mortality across the country or by specific regions, likewise, offers data on

the cases of Severe Acute Respiratory Syndrome and an interactive panel, the "Susanalytic", with graphics referring to all the data collected in the " e-Sus Notifica ".(4)

Furthermore, the most important thing is that all these information banks were migrated with the Ministry of Health Portal and the application "Coronavirus-SUS" to a cloud, ensuring the centralization of information, which allows the Ministry of Health to simplify administration, secure and scalable virtual servers and databases.(5)

Thus, the objective of this study was to describe the importance of technology in the integration of databases for reporting SARS-CoV-2 cases in Brazil and monitoring the evolution of the disease and, thus, mitigating the misinformation that leads the population to minimize the magnitude of this global epidemic.

METHODS

For the construction of this article, a search was carried out in the electronic database PubMed, SciELO, in the website of the Ministry of Health of Brazil and in the Center for the Mathematical Modeling of Infectious Diseases of the London Medical Academy. About 35 articles were found, which made up the category of publications of the last 5 years and which were free of charge. Thus, 26 articles were analyzed in full and, of these, 15 were selected to compose this work.

RESULTS

The review showed that the concern with the advance of the pandemic suggested the need for countries to structure themselves to follow their epidemiological evolution. In this way, the Pan American Health Organization (PAHO) and the World Health Organization (WHO) developed technological tools and provided technical support to countries in preparing and responding to the widespread epidemic of COVID-19.(6)

Thus, PAHO initiated a training process for public health specialists from several countries, including Brazil, in the use of Go.Data®, a tool that seeks to facilitate the investigation of outbreaks and epidemics, such as the disease caused by the new coronavirus: COVID-19. As well as, it allows the collection of field data, tracking of contacts and visualization of transmission chains.(6)

With the start of the pandemic in Brazil, the Coronavirus Panel was developed, with the perspective of being the official vehicle of communication on the epidemiological situation in the country.(7)

So that the epidemiological curve of this disease could be followed quickly, to assess its evolution, it was determined that the cases and deaths confirmed by COVID-19 were updated daily by the Ministry of Health, based on official information provided by the State Secretariats of Health. Health of all Brazilian states. Thus, the data is consolidated daily and published at the end of working hours, around 7 pm.(7)

Another strategy that was implemented in the database integration for COVID-19 notification was the gathering of information about the pandemic from the National Survey by Sample of Households PNAD. Developed by IBGE, in partnership with the Ministry of Health, it made it possible to collect data referring to the Brazilian resident population, interviewing 349 thousand people in approximately 200 thousand households. Specific questions about COVID-19 addressed issues related to flu-like symptoms associated with other aspects of people with referred symptoms and the search for health facilities.(8)

DISCUSSION

In view of the data presented, it is confirmed that health has evolved, through technologies, to be an important tool for monitoring and communicating with the patient. Furthermore, in the scenario in which we are included, in the context of the COVID-19 pandemic, the mobile environment has become crucial, both in the process of detecting and notifying infected individuals and in controlling their isolation.(9)

In this sense, there is the perspective that several institutions, public and private, are converging to an effective consensus to develop more digital technologies that seek to improve health and basic services that are provided to the population,(10) including, regarding tools that improve notification of new coronavirus cases. Thus, it is noted that many applications, designed to perform virtual screening, allow users to be evaluated for possible symptoms of the disease,(11) providing, consequently, the generation of safer information according to the confirmation of contamination by the virus.

However, it is important to note that, in Brazil, the number of confirmed cases of COVID-19 is significantly underreported. Therefore, this negative factor may be related, for example, to operational difficulties for carrying out tests on the population, since the quantities are insufficient in the face of demand and, also, the guidelines published publicly are deficient, as they do not warn about the testing by all individuals suspected of having the disease, but only in more severe cases, further contributing to the maintenance of notification below expectations.(12)

It is worth noting the existence of difficulties in the entire notification process, considering the size of Brazil and the complexity of grouping data from such different realities, since the country presents economic, social and cultural inequalities and differences between states and municipalities, which directly impact epidemiological assessments.

In addition, due to political party, administrative and managerial issues, in certain epidemiological weeks, the data stopped being disseminated daily. Furthermore, communication vehicles of great relevance to the country formed a partnership to provide transparency to COVID-19 data. Thus, journalists from different communication channels began to collect information on the pandemic directly from the health departments and jointly disseminate figures on deaths and contaminants.(13)

In addition, among the technologies developed, it is noteworthy that Apple and Google entered into a partnership aimed at creating a disease tracking tool, which consists of the "Contact Tracing" system, based on the exchange of anonymous identifiers between nearby phones, through Bluetooth, by installing an application made available by the authorities responsible for national health. When obtaining a positive result for the coronavirus, the individual informs the application and it will alert the people with whom the infected subject had contact in the last 14 days, so that everyone is aware of the situation.(14)

It is perceived that it is an important tool both for the identification and for the control of the proliferation of the virus; however, its efficiency has not yet been fully confirmed.

In the light of the information exposed, it is noted that the collection of data, in a fair, responsible and sustainable manner, protecting the identity and integrity of the individual who provides his information, increases society's trust in relation to the government in terms of the availability of data. your data to respond to situations of public interest.

Thus, the aspects related to the individual's right to privacy and, consequently, the protection of their data do not make it impossible to use this personal data to respond to the COVID-19 pandemic, since there is an emergency in this context, obtaining data so that measures can be taken that benefit society equally.(15)

CONCLUSION

Given the above, it is noted that there is a great need to change the reality of underreporting. In addition, it is perceived that technology as an enabling factor of attitudes that lead the population to minimize the magnitude of this global epidemic. It is also noteworthy that the information banks that were unified in the "Coronavirus-SUS" guarantee the centralization of information and the transparency of this data. Finally, this study explains the importance of technology in the integration of databases for monitoring the evolution of COVID-19 cases and, thus, mitigates misinformation.

As a limitation of this work, we highlight the fact that it is a narrative review of a recent theme, which is still under construction. Thus, additional methodological approaches are necessary to broaden the understanding of the importance of technology for data integration and notification of SARS-CoV-2 cases in Brazil and, thus, to assess the negative impacts of misinformation, as well as the positive effects of quality information on disease prognosis.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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The challenges in building quality knowledge are present in our daily life, it is undeniable that with the Sars-CoV-2 pandemic, our dynamics have been drastically modified. However, IFMSA Brazil has as its greatest definers the ability to adapt and grow, and with Exchanges it was no different.

When talking about exchanges, we are bringing with us the dream of traveling and exploring the world, and it still remains alive. It is from this that we were able to seek innovations, alternatives and solutions to deal with the sad pandemic of COVID-19, adapting our dream, but without losing the quality of the work we have done.

Patience, determination, resilience and courage define the characteristics of a medical student, a traveler. Whether through words or actions, the articles present here are a reflection of the constant searching for improvement and are a proof that adversity is the raw material for evolution and revolution.

The exchanges suffered unquestionably. The impossibility of breaking new ground, knowing new cultures, making new friends, and growing humanly and professionally, without a doubt, is impacting. However, we learned how to modify this reality. In this section below, you will have the opportunity to know how.

We hope that you will be inspired, be thrilled, and, above all, dream with our exchanges. Even socially isolated, we are more connected than ever on our beloved blue planet, full of opportunities that are awaiting the best moment to be discovered by you!

With love and blue hugs,

Renan Ribeiro Polachini

National Officer on Professional Exchange for Incomings

Sabrina Esmeraldo Cordeiro

National Officer on Research Exchange for Incomings

Larissa Yuri Suganuma

National Officer on National Exchange for Internal Affairs

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XCHANGES

INTERFACE IN SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS: AN EXPERIENCE REPORT FOCUSING ON THE DIGITAL EXCHANGE BETWEEN BRAZIL AND RWANDA

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KEYWORDS: Health Education; Medical Education, Sexual and Gender Minorities.

INTRODUCTION

Exchange activities are understood as transforming tools that provide not only information exchange, but also interpersonal and cultural knowledge. Consequently, such programs promote the expansion and consolidation of new competences and skills, whether in the social, cultural, political or scientific sphere, enabling both professional and personal growth of exchange students (1).

In view of this, exchanges within the areas of health can be extremely important to understand the epidemiological and medical reality of other countries, thus enabling contact with a new reality based on experiences and exhibitions (2). In the current context, marked socially and historically by the SARS-CoV-2 pandemic, the situation of public health and social isolation requires an increase in the use of distance learning (3), nevertheless, exchanges that take place online can be a great learning opportunity, mitigating distance barriers between countries in the midst of a pandemic. Thus, we sought to describe this type of experience and analyze its contributions from the perspective of Brazilian exchange students and participants.

EXPERIENCE REPORT

The virtual exchange of the Standing Committee on Health and Sexual and Reproductive Rights, including HIV and AIDS (SCORA) was promoted by the International Federation of Medical Students Association Brazil (IFMSA Brazil) and by the National Executive Director of Medical Students (DENEM). This proposal was based on the need to discuss Health and Sexual Reproductive Rights (SRHR) among medical students from various locations around the world. Thus, one of the countries offered was Rwanda, belonging to East Africa.

In addition, at SCORA X-CHANGE Rwanda 2020, presentations and interactions of participants were conducted in English, through two sessions: the first on June 17, on the general situation of SRHR in Rwanda from different perspectives and the second session on June 18, on access to safe abortion. In order to organize the meetings, a WhatsApp group was created to expand communication and interaction, always in English. Through it, the exchange coordinators and all the exchange students introduced themselves and also answered some questions. It had participants from Sweden, India, Malawi, Burundi, Sudan and Brazil.



Thus, the first meeting was guided by the discussion of SRHR policies, such as teenage pregnancy, family planning, fertility, maternal health, HIV prevalence and the situation of the Lesbian, Bisexual Gays, Transvestites, Transsexuals, Transgender and Queer community (LGBTQ) in Rwanda. The entire presentation was based on Tantine Group Ltd., an entrepreneurial platform made by medical students from the region, with the mission to

provide reliable information on sexual and reproductive health. Demographic and social aspects of the country were also discussed.

Subsequently, the second thematic meeting spoke about public policies on access to safe abortion in Rwanda. It functioned less expositively and more like a conversation circle, always opening the speech so that the other exchange students could share about the policies regarding abortion in their country as well, explaining the difficulties and limitations that exist today.

Through the opportunity for exchange and digital exchange between the participants, it was possible to see many similarities with Brazilian policies, however, it was noted in issues, such as abortion, that the African country is more advanced in social support to this demand than Brazil. From that, it was also possible to demystify many of the stigmas associated with Rwanda, its culture and its policy, expanding the information about the country.

REFLECTION

In view of the above, the exchange promoted by IFMSA Brazil and DENEM reached the spheres of professional knowledge, allowing exchange students to learn and discuss the epidemiological reality and medical assistance in reproductive and sexual health in Rwanda, as well as interfacing these learnings with the Brazilian reality, its advances and limitations. These moments of construction are important, as they develop interpersonal skills and social and cultural values (1).

These extracurricular academic activities allow the encouragement of medical students' autonomy, since experiences and themes, are discussed in new perspectives. In this sense, contact with different health systems in an exchange and learning about their organization, allow an expanded view of the concept of health (4).

On the other hand, it is worth noting that the digital environment has its own particularities, since there is no physical experience of the discussion with the exchange participants or a visit to the local reality. In addition, the language barrier is an important factor that must be mastered by the exchange student. However, this does not prevent the experiment from being successful, if well executed by the organization to promote a good experience for everyone.

CONCLUSION

From the experience, being participants in SCORA X-CHANGE Rwanda, the knowledge in education and medical assistance that the event brought, proved to be of great relevance for international discussions. In this way, to produce these debates of knowledge in SRHR, in

order to share this information network and the interface between countries with different structures, is transforming. Thus, this exchange proved to be a possibility to reflect and analyze SRHR not only in Brazil, but also globally and especially in Africa, fulfilling the objective proposed by the organization. Thus, this activity, despite its limitations, has a potential in academic training and should be considered even in pandemic times.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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TRIP TO MARAJÓ: REPORT OF SOCIO-HISTORICAL AND CULTURAL EXPERIENCE WITH THE AMAZONIC REALITY

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KEYWORDS: Cultural Diversity; Empathy; International Educational Exchange.

INTRODUCTION

The exchange program allows a practical sharing of experiences, beliefs and values between people with different life experiences and from different cultures. Thus, multiculturalism fosters the formation of a more critic and reflexive academic, providing an environment that encourages the exchange students to adapt themselves and master new challenges, such as unexpected circumstances inherent to the experience and personal growth through learning acquired by living far away from their family ties.(1,2) As mobility programs aim the cultural and scientific enrichment, professional and personal growth, in addition to quality education,(3) the International Federation of Medical Students' Associations of Brazil (IFMSA / Brazil) aims to promote such experiences, uniting people who might not meet during their lifetime and allowing them to have, besides joint work experiences, leisure activities among the program participants. Such activities are provided by the most diverse vacancies declared worldwide, whether international (SCOPE or SCORE) or national (SCONE). Therefore, in order to offer an immersive experience for exchange students, in January of 2020 they were invited to attend on a weekend social program as a trip to a beach field composed by an astonishing fauna and flora, typical of the Amazon region. Describing this experience and discussing the particularities of medical students in other countries are the objectives of this report.

EXPERIENCE REPORT

This is a descriptive study, on the modality of an experience report, which details an expedition of fifteen graduates during the free period of exchange students present at the institution. These academics were from several locations, including the Brazilian states São Paulo and Rio Grande do Norte, and from American Latin countries, such as Peru, Mexico and Chile.

On the morning of January 11th, the activity started with the meeting of all participants at Regional Fluvial Terminal to access a boat heading to Marajo Island. During the journey, the travelers' expectancies started to arise through relaxed talking about what they expected to see, especially for the exchange students, fostering the initial socialization and allowing a glimpse of what the weekend would be like.

During the stay, one of the coordinators of the trip allocated the establishment used for accommodation, and the first day was marked by the recognition of the surroundings, including the beach. It allowed the strengthening of ties and the exchange of experiences, with the

foreign students making reports about their homeland, the teaching method of each college and their trip experiences, in addition to their cultural knowledge. It is worth mentioning that, due to linguistic differences between the members, they adopted English for better communication.

Finally, the group took a cultural tour, in order to know the main attractions of the place. On January 12th, the expedition returned and, during the comeback, reports about the social program were collected. Next to their arrival, the exchange students contemplated one of the main postcards of Pará, the sunset in Guanabara Bay.

REFLECTION

The mobility resulted in tourist experiences linked to the travelers' sociocultural traits with the Amazonia Marajoara reality. The experience analysis revealed important cultural shocks, from the local geography, due to the archipelago surrounded by freshwater river, to the eating habits, allowing the exchange students to taste the local

cuisine, specifically dishes such as couscous and fried fish.(4)

In addition, the impact of meeting different behavioral habits was noticeable for the foreigners, through typical expressions of Pará and the host experience, since the students used hammocks to rest through the night, a common habit in the North and Northeast regions. This process also facilitated the deconstruction of propagated ethnocentric visions regarding the region and its people. Finally, the contact with the reality of forest and riverside populations allowed an enrichment of the humanized gaze, since these groups are socially neglected, requiring the implementation of more empathetic policies and professionals in medical practice.(5,6)

Finally, the debate on medical education generated unexpected conclusions. Among them, we can mention the absence of entrance exams in some countries; the different duration of graduation abroad; the presence and effectiveness of public health systems in their places of residence; the non-adoption of active methods in some institutions or the low demand of medical residences, such as neurosurgery, unlike what occurs in Brazil.

CONCLUSION

Thus, the experience provided to the exchange students fostered the sharing of lives and academic experiences, besides the stimulation of a more empathetic vision among the participants. The history and cultural diversity permitted the intensification of these processes. In this context, it is important to highlight that the forms of action on the health field and educational systems, as well as its characteristics in each place, turned into important themes discussed during the conversations, providing an enriched experience to each one of the students involved. It is something all of them will carry with themselves on the comeback to their cities. It will make the difference on how they see the world.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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BRAZIL AND MEXICO: DIFFERENT HEALTHCARE SYSTEMS AND THEIR COMMON CHALLENGES

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KEYWORDS: Unified Health System; Health policies; Health systems; Latin America.

INTRODUCTION

According to the National Curriculum Guidelines for the Undergraduate Medical Course, students should be encouraged to develop academic mobility. Conducting international exchanges provides enrichment of medical practice and a broader understanding of health care at an international level. (1)

Brazilian medical students, thanks to the 1988 constitution, spend their training immersed in a Beveridgean system - in which health is universally accessible and offered by the state, financed by taxes. (2) Currently, despite the numerous advances in health indicators since the implementation of the Unified Health System (SUS) in Brazil (3) (see table 1), this system has been the target of criticism, due to its high cost and high waiting time for elective procedures and specialized assistance. (2)

In another context, Mexico has a mixed health system - a Bismarckian model of social security (in which health financing comes from employees and employers, similar to Era Vargas in Brazil) and another of social protection. Social security institutions provide access only to salaried workers and their families, while social protection institutions provide access to people who have no mandatory membership in the social security system. (4)

Bearing in mind that the comparison between health systems provides a vast potential for learning and formulating public policies - allowing the identification of areas above or below expectations and guidance on potential solutions - the objective of this article is to present the experiences and reflections of a medical student, previously inserted in the context of attending SUS users, about her learning during a surgical clinical

Table 1

Indicator	Brazil		Mexico	
	1990	2014	1990	2014
Population	150.310.243	205.960.069	85.380.637	112.978.018
Poverty (% population)	48	16.5	44.2	41.2
Extreme poverty (% population)	23.4	4.6	16.0	16.4
Gini coefficient	0.627	0.548	0.542	0.491
Improved sanitation facilities (% population)	66.6	82.7	66.2	85.1
Life expectancy at birth	65.3	74.4	70.8	76.7
Fertility rate (births per woman)	2.8	1.8	3.5	2.2
Infant mortality rate (per 1.000 live births)	50.9	14.4	37.1	11.9
Neonatal mortality rate	24.3	9.6	20.6	7.4

Demographic, social and health indicators in Brazil and Mexico, in 1990 and 2014.

1 - Title: Demographic, social and health indicators in Brazil and Mexico, in 1990 and 2014 Reference: adapted from Machado CV. Health Policies in Argentina, Brazil and Mexico: different paths, many challenges. *Ciência & Saúde Coletiva*. 2018;23:2197-212.

exchange by IFMSA Brazil inserted in the Mexican health system.

EXPERIENCE REPORT

The exchange took place during January 2020 in Mexico City (Mexico), mediated by the local committee of the Instituto Politécnico Nacional, in the Urgency and Emergency Service of Hospital Juárez de México. Preceptors of the service explained the author about the Mexican health system. Several discrepancies were noticed between the Brazilian and Mexican models, starting with access: in Mexico, 3 different assistance models are available (social security, social insurance and private services), according to financial conditions and employment status. It is important to note that users who contribute to Social Security still pay a partial contribution or the total value of some of the services used during treatments, even though, for the most part, they are part of the lowest socioeconomic level.

Many low-cost private clinics advertised on banners were noticed, as well as pharmacies in peripheral locations and subways, selling medicines without the need for a medical prescription (figure 1). In addition, a high prevalence of obesity was observed among adults and children, which may be explained by the large number of people living in poverty and extreme poverty, since this portion of the population feeds of simple carbohydrates and fried meals (5). This is exemplified by the frequent meals in street stalls, something culturally and financially accessible.



Figure 1 - Title: Medicine being sold in a pharmacy on the subway. Source: own source

It was noticed that in most of the Mexican system there is no flow of information between different service complexities. Many hospital records are manual, with no digital system for consulting the history of care at other services - while at SUS there is an attempt to unify medical records, still in the process of application.

REFLECTION

Although Brazilians question the competences of SUS, Mexicans indicate that the best way is to unify their health system (4), through a system anchored in primary care. However, Mexicans have higher life expectancy, lower under 5 years, infant and neonatal mortalities when compared to Brazil. (3) Differences between health indicators in these countries cannot be explained exclusively by their different health systems, since - although there is international evidence indicating the primary care model as the most appropriate to expand access, decrease costs and improve assistance (6) - evidence demonstrates that health is impacted by historical, cultural, political and legal issues. (7)

Despite the differences in terms of the assistance model, Brazil and Mexico have similarities: they are incipient democracies with a colonial and authoritarian past, high susceptibility to crises, concentrated income and accentuated social inequalities. (2) Both are making efforts to increase universal coverage - Brazil since the 1988 Constitution and the implementation of SUS and Mexico mainly after the creation of social insurance - but still with the obstacle of social inequality. In Brazil, at one extreme, at a high socioeconomic level, there is use of private health plans and services, while at the other extreme there are people in extreme poverty who do not fully benefit from SUS (either due to lack of access or lack of information). These two extremes are also present in Mexico, one accessing private services and the other limited to the use of social insurance. It is noteworthy that this reflection was based not only on the reading of scientific articles, but also on the impressions acquired in the experiences throughout the author's experience, the latter not being subject to methodological pro

CONCLUSION

Many health issues have their source in a profound social problem, which has been present for hundreds of years. That is why it is necessary to develop public policies that cover the marginalized population with worse access to health in these countries. In Brazil, strategies such as Bolsa Família, the Mobile Emergency Service and Farmácia Popular brought innovations in areas where there were gaps. (3) However, especially in times of economic recession, improving and adapting successful health actions, as well as developing new strategies, is an enormous challenge.



Figure 2 - Title: Exchange student at the hospital. Own source

The accomplishment of academic mobility, in addition to improving the technical knowledge of the student, inserts him in a reality different from his own (figure 2). Immersion in another system, in which there are different strategies to circumvent problems that are also found in Brazil, culminates in a more critical and innovative vision about the solutions to the challenges faced by SUS, on the arduous path until the implementation of its principles - universality, equity and integrality.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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MEDICAL INTERNATIONALIZATION AND GRADUATION: ACADEMIC EXPERIENCE IN THE REGIONAL NEUROLOGY AND NEUROSURGERY CLINICAL CENTER IN UKRAINE

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KEYWORDS: Medical Education; Medical Students; International Educational Exchange.

INTRODUCTION

Medical curriculum prevalent in Brazilian universities is based, mainly, in Flexnerian model of teaching which is characterized by hospital-centered approach as well as technician, approach that includes curriculum, most times, static and not at all susceptible to changes (1). In this manner, academic activities that allow teaching flexibility, for example, international exchange program, present themselves as promoting autonomy for graduates. Simultaneously, connoisseurs of everyday more and more competitive work market experience, makes it primordial for medical professional to develop their competence broadly, bringing knowledge, abilities, and attitude as the north of their education and future practice. Therefore, it is perceived that such experience enables a more up to date education and curricular qualification, besides bringing the ability to learn a second language, which is relevant considering that most of scientific articles in the medical area, are published in other idioms, mainly in English. Contribution on screen can, among other things, lead to comprehension, interpretation, preservation, reinforcement, promotion and diffusion of national and regional cultures, international and historical, in a context of pluralism and cultural diversity (2) in medical graduation. Moreover, stimulate production of more studies related to this relevant thematic yet scarce in the global scenario.



Figure 1: Round with neurologists and neurosurgeons at the Regional Clinical Centre of Neurosurgery and Neurology Uzhhorod

EXPERIENCE REPORT

This article is an experience report of a medical graduates made possible by International Federation of Medical Students Association (IFMSA) program, a student organization with more than 1.3 million medical students in more than 130

countries (4). Among so many locations made available by the international exchange program notice, the country of choice was Ukraine, envisioning a unique opportunity to learn about the functioning of the health system in an Eastern European country. The clinical-surgical exchange (SCOPE) was carried out in the city of Uzhhorod, located in western Ukraine and with approximately 113,996 inhabitants. The activities were developed at the Neurosurgery Department of Regional Clinical Center for Neurology and Neurosurgery. The duration was from 01 to 31 January 2020, in which activities such as participation in rounds and preoperative meetings were developed with neurosurgeons (Figure 1), in which the clinical cases were presented, as well as procedures analyzed. and types of maneuvers that would be performed in surgeries (Figure 2). Direct participation in neurosurgical procedures was possible (Figure 3). In this program, the tutor ensured an active practice and improvement of academic skills, which are often not experienced during graduation.

REFLECTION

Such internship experienced at the hospital linked to the University of Uzhhorod brought together nationalities, fields of knowledge with different cultures, allowed to stimulate professional and personal maturation of the academic and also promoted the reflection of their skills. As well as, enable the overcoming of difficulties related to extreme cold weather, also, the local language – Ukrainian. Thus, this report is intended to spread the benefits arising from international exchange programs for

medical graduation, stimulating practice among the professor. Besides enabling ideas to support in legal matters with the institution to facilitate future programs.



Figure 2: Discussion of cases before surgical procedures.

CONCLUSION

Based on the scarcity of researches related to the impact of an experience for exchange programs in medical graduation, information spreading is, somehow, mandatory related to such relevant subject in our global scenario, to which the academic graduation is directly influenced. An international experience aggregates contribution that will take to a professional development of graduates that goes not as far as learning other languages, but to a higher sensibility and tolerance to different cultures that exist in the world, representing her enhancement in the medical and humanistic competencies, making it a contribution for Brazil medical education improvement.



Figure 3: Active participation of undergraduates in the surgical procedure.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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Maria Eduarda Mesquita
National Officer on Medical Education

Hey! Resilience is a concept borrowed from physics that means the ability of an object to deform and be back to its original state. During the year of 2020, while the pandemic events went on, managers, educators and students were invited to be resilient. To handle the pressure, the doubts, the anxiety, the social distance.... With the promise that later we would return to the original state.

Heraclitus already said that we cannot bathe in the same river two times. because in the second neither the river or us would be the same. And after the pandemic crisis, after we live the emergency e-learning, the collaboration between researchers all around the world through the internet and learned so many new educational tools... Is there a possibility that one day we will go back to our original states as teachers, students and educational methods?

However, we also experienced new approaches to old problems: excessive curricular hours, the lack of transparency between teachers and students, inadequate teaching and evaluation methods, lack of decent communication... All already known challenges. And for that I ask: should we go back to our original state?

For all of this, I invite you to think based on the next pages. Instead of being resilient and returning to our original state, we can be transformative and search innovation to better states. Searching for meaningful student involvement, socially accountable medical schools, teacher capacitation, education in all its power of transforming a whole new generation of health workforce committed to human rights, attentive to minority vulnerabilities, with a more inclusive look to sexual and reproductive health, more prepared to be health managers.

With the desire of transforming the world through education, that surpasses frontiers and social distancing barriers.

THE IMPORTANCE OF DISSECTION PRACTICE FOR THE DEVELOPMENT OF ESSENTIAL SKILLS IN MEDICAL TRAINING: EXPERIENCE REPORT

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KEYWORDS: Anatomy; Regional, Anatomy; Human Body; Ethichs, Medical.

INTRODUCTION

The discipline of Human Anatomy is a requirement in undergraduate medical, and it provides knowledge about body composition, its functions and relationships.(1) The study of anatomy in medical schools makes itself through pieces already dissected or prepared for this process. Dissection provides three-dimensional learning of the body through the identification of the human parts and may also help the future doctor to understand the signs and symptoms during the anamnesis of a patient.(2)

Besides the development of systemic and clinical reasoning, dissection is directly related to the introduction and handling of surgical instruments (Figure 1) and also collaborates in the composition of ethics and medical morals.(3) Moreover, the technique stimulates teamwork and allows reflection on life and death, awakening care, and empathy.(4)

That said, the objective is to report the experience of practical dissection classes experienced by undergraduate medical students, demonstrating their role of contributions to medical education.

EXPERIENCE REPORT

During the second semester of 2019, the students of the second phase of the medical course began, as part of the topographic anatomy discipline, dissection classes in the Laboratory of Human Anatomy. On the first day of class, the teacher instructed the students on dissection techniques and presented the materials for the semester. The students formed a group of five members, who were responsible for dissecting the left dorsal region of the corpse. Other groups dissected distinct regions.

The practical procedures began with the demarcation of the incision lines in the cadaver in ventral decubitus (Figure 2). The external occipital protuberance at the

cranial base, the mastoid process, the acromion, the posterior superior iliac spine, and vertebral spine were some of the main points used by the students to demarcate the lines. After the incisions and the reflection of the skin, which was relatively thin, there was the reflection of the subcutaneous layer, which was thicker than the skin layer, especially in the occipital region and in the lumbar region. The subcutaneous layer demanded more time and effort for the students to dissect compared to other stages.

Subsequently, the students reached the muscular fascia, which is extremely thin and must be reflected gently in order not to damage the muscle fibers that are below. Then, they found the superficial muscular layer, consisting of the trapezius and the latissimus dorsi muscle, which was reflected carefully not to remove the thoracolumbar fascia.



Figure 1 - Surgical Instruments used for Dissection. Own Source.

Finally, the group removed the fascias from the deepest muscles, which were the splenius capitis muscles, rhomboid major and minor, and lower serratus posterior. The semester ended before the team could complete the dissection and see other dorsal structures. Also, the students dissected the nervus occipitalis minor, branch of the cervical nerve C2.

Whenever students start dissecting a new layer, anatomical patterns and possible variations that can be found were investigated, allowing an excellent performance. As well, over the days of dissection, the group produced a previous report (Figure 3) describing the structures they found in each dissection layer, and they handed it over to the teacher at the end of the course.

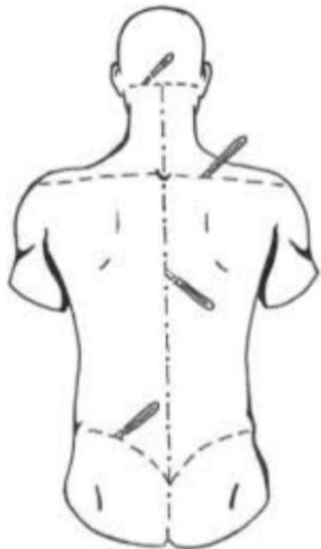


Figure 2 - Demarcation of the incision lines, first step of Dissection. **Source:** Duarte HE. Guia de dissecação do dorso [Internet]. Florianópolis; 2018.

The classes were regarding theoretical and practical activities for the proper execution of techniques with the aid of human anatomy books like "Clinically Oriented Anatomy" by Keith L. Moore. During the semester, the students evidenced the composition of the human body in different layers, being the dermis thinner and stiffer, while the subcutaneous tissue was thick and malleable. Separating the muscular fascia from the subcutaneous tissue imposed attention due to its similarities.

At the end of the semester, there was a seminar to evaluate the class, and the students demonstrated, in the dissected anatomical piece, the procedures they had performed and its respective materials. They also pointed out identified structures and their variations, described the organizations of layers and structures, shared knowledge, and reported to the other groups the facilities and difficulties encountered by them.

REFLECTION

According to Alhassan and Majeed,(5) dissection is an anatomical methodology that, in addition to provoking the curiosity inherent to medical undergraduates, deepens anatomical knowledge and develops the handling of surgical instruments, important aspects for a good clinical and surgical performance of the physician.

Moreover, the students assume more responsibility since the cadaver becomes the first patient of them and the activity developed requires a lot of attention and care. In addition to learning about the value of life and coping with trauma and death, this activity contributed to the development of the human aspect because empathy, care, and respect for the body, alive or dead, were worked through the practice. These elements favor the study by Souza et al,(6) who discuss the need for the training of a more human and ethical professional in the medical environment and the extreme importance of practicing dissection for this purpose.

Rehkamper,(7) in his work on the benefits of the dissection practice to the future professional, argues that the practice raises questions about organ donations to laboratories. In this context, students become able to intervene in this relationship between science and the population, since they can sensitize many people and patients, promoting an increase in donations and discussion on the subject.

CONCLUSION

Although the primary purpose of the discipline was the acquisition of anatomical knowledge, the practice also allowed for personal aggrandizement, by providing moments of teamwork and encouraging decision-making. In addition, the practice developed manual skills and knowledge of the areas explored. Therefore, we can say that dissection classes contribute positively to medical training.

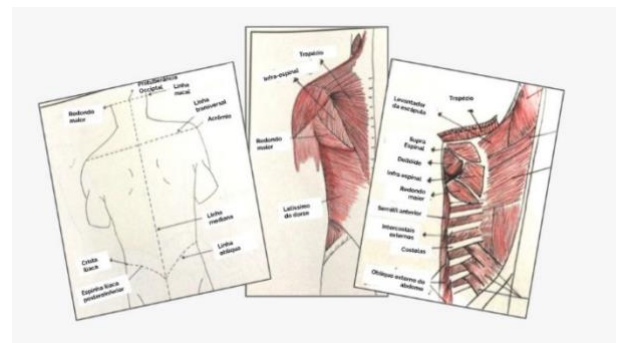


Figure 3 - Previous report describing the structures and dissection layer. Own Source.

However, despite the technical and ethical benefits of the practice, the reduced number of corpses and dissection classes were limited elements to the experience. There was not enough time during the semester for individual learning, and it was not possible to reach the deeper layers of the region to get insights from those bands. A more intense and constant practice would add even more knowledge to students.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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STUDENTS ENGAGEMENT IN PLANETARY HEALTH: EXPERIENCE OF SMALL WORKING GROUP OF IFMSA BRAZIL

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KEYWORDS: Environmental health; Medical students; Medical education.



INTRODUCTION

Planetary health gained prominence in 2015, through a report issued by a committee of The Rockefeller Foundation - Lancet. However, the term has been coined since the 70s/80s, addressing the vision of holistic and integrative health, which comprehends that everything that surrounds us determines our health.(1) Therefore, planetary health relates human well-being to the situation of natural systems on which it depends. On this matter, it is necessary for health professionals and managers to act on issues connected to sustainability, reduction of inequities reinforced by the environmental impact on health systems, and adaptation to climate changes, as well as their impacts on the community and the whole system.(2)

In addition to the aforementioned approach, in 2015 the United Nations (UN) proposed the 2030 Agenda, which is composed of 17 Sustainable Development Goals (SDG) aiming at actions for the benefit of the planet and humanity. These goals are based on five pillars: people (eradication of hunger and poverty), planet (protect the planet against degradation through sustainable consumption, and mitigation of climate change), prosperity (progress in harmony with nature), peace (just and inclusive society), and global partnership.(3)

Focusing on building related competences, it is identified the need to encourage an integrative medical education that addresses subjects regarding the environmental changes, its impacts on health, and the consequent needs of the community is identified.(4) Therefore, the aim of this study is to report and highlight the academic engagement on planetary health and their involvement in the insertion of the subject in medical undergraduate curriculum.

EXPERIENCE REPORT

A Small Working Group (SWG), composed by medical students affiliated to IFMSA Brazil, was created in order to insert in medical students' discussions the environmental issues and its interdependence with human health. These students bring to a national level their contribution on the theme, highlighting which environmental needs should be reaffirmed in student representation, medical education, humanization, and health promotion.

The group held 13 meetings, seeking to discuss environmental vulnerabilities as health conditioning factors and how these knowledge gaps can be filled, either through insertion in the medical school's curriculum, or by mobilizing student involvement and engagement. The debates were guided by an active teaching-learning methodology, allowing the awakening of a reflection and criticality of the participants on the themes related to planetary health.

These meetings were the stage of discussions related to the deterioration of ecosystems and biodiversity, as well as how such actions directly affect the health and well-being of humanity. Strategies on how to mitigate these effects were also debated, together with the sensitization and awareness of the Federation's academics on the themes: climate change, One Health, sustainable practices, climate-sensitive diseases (CSD), occupational health for agricultural workers, waste disposal, use of water resources, and basic sanitation.

The need to insert a professional with a certain expertise in the field to moderate the discussions was identified as a limiting factor on the proposed debates.

For that matter, the SWG intends to formalize a document that addresses planetary health in a national statement representing the Federation, in addition to manuals on the planning of activities on the subject, and the change

of individual and collective consumption patterns. It is also expected that the students participating in the group will advocate for the inclusion of these themes in extracurricular activities and in the formal teaching grid.

REFLECTION

As much as the Brazilian National Curriculum Guidelines (2014) for undergraduate medicine cite as curriculum content the understanding of ecological and social determinants, including those associated with the environment, the theme of planetary health is still poorly inserted in medical education. Scarce are the disciplines that insert specific skills and knowledge about climate change, air pollution, land use, destruction of biodiversity, and its impacts on human health.(5)

A research carried out by IFMSA - international entity that IFMSA Brazil is a part of - found that only 15% of the 2 thousand medical schools included in the study sample had climate change and health-related content in its curriculum. The data presented highlight the absence of this approach in medical education.(4) Nevertheless, institutions such as the Centers of Disease Control and Prevention (CDC) already related climate change to an increased incidence of respiratory, cardiovascular and psychiatric diseases in locations with high levels of air pollution. Other data correlates an elevation in gastrointestinal morbidity and mortality rates where there is a deficit in sanitation services, as well as an increased antimicrobial resistance in the context of One Health. Still in this field of study, the enhancement in global temperatures is confronted with the expansion of risk zones for malaria, dengue, and other CSD.(6)

Furthermore, the environment becomes a significant health determinant to several neglected communities, such as the indigenous, riverine, rural population, agricultural workers, material collectors, and landfill residents. Taking as example the physical, psychological, and moral impacts conceived to the Krenak over the rupture of the Fundão dam. In this situation, their entire culture was vanished with the pollution of Rio Doce by the mining waste.(7)

Therefore, it is important to reiterate the impacts generated by the improper management of natural resources, which resulted in the prosperity of many countries; to the same extent, a warning was lit for responsible consumption cultivating moderation, modesty, and the sustainable economy.(8) In order to remain aligned with this approach, the first step is recognition, which will guide awareness and promote the integration of the subject into our personal and professional practice.

CONCLUSION

This experience contributed to the training of future professionals who are engaged in the cause and promoters of impact in their communities, forming leaders in a global medical education. In this scenario there is the need for a greater involvement of higher education institutions on the debates about planetary health, and its effective insertion on medical curriculum.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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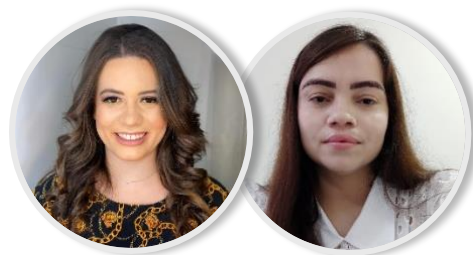
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PERSPECTIVES OF NEW WORK ALTERNATIVES PERFORMED AT DISTANCE BY HEALTH PROFESSIONALS IN PANDEMIC TIMES OF COVID-19: A NARRATIVE REVIEW

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KEYWORDS: Covid-19; Telemedicine; Pandemics.

INTRODUCTION

Since December 2019, healthcare professionals around the world have faced challenges due to the new coronavirus, SARS-CoV-2. This virus proved to be highly infectious and can be transmitted through droplets and close contact.(1)

For presenting more than 18,142,718 confirmed cases and 691,013 deaths(2), the so-called "Covid-19" represents a major threat to global health and safety.(1) Preventive measures were adopted, such as hand washing, use of masks and alcohol gel(3) for the general population, but these precautions alone are not enough to cover the health service and save lives.

Health professionals in conjunction with managers and researchers are looking for strategies to adapt to new realities and obtain preventive measures that contain the spread of the disease.(3)

One of these alternatives to provide continuity of care was the provision of health services remotely. This was a way found to respect the security measures of social distance and allow continuity in health care without exposure to the new virus.

The provision of remote activity, such as telemedicine, has great effects for the telecommunication modality and improvement in patient health. Creating a telemedicine program takes time and requires sources of funding and precise guidance.(4)

The objective of this article is to highlight adaptations adopted by health professionals in times of social distance due to Covid-19 and its benefits in using these tools.

METHODS

The methodology adopted in the study is the narrative review which allows a synthesis of published studies, through a research where it analyzes and builds literary criticisms in order to generate new pictures and perspectives on a theme.(5)

The present review had a guiding question: "What adaptations were adopted by health professionals in times of social distance due to Covid-19 and its benefits in the use of these tools?". To structure this issue, we used the PICO(6) strategy: participants; intervention; study context and outcomes.

A survey was carried out on the PubMed Portal, selecting all articles, which were published in the databases that address the topic in question. It also conducted a survey on the SciELO platform. The descriptors used were obtained from the "Health Sciences Descriptors" (DeCS). In Portuguese, the descriptors used were: ("Telemedicine") AND ("Covid-19").

Were found in PubMed 827 articles. Taking into account the pre-defined criteria, the articles included would have to meet the objective proposed in this work, have been published in Portuguese or English and indexed in the databases between the period 2015 to 2020. Were found 37 articles that addressed the thematic and 11 of them were selected. The search was carried out in August 2020. In SciELO, 37 articles were found and only those necessary to address the theme were selected. In addition, there was a need to add Law No. 13.989.

RESULTS

With the development of the pandemic, telehealth services offer the opportunity to maintain access and continuity of medical care, while reducing the potential

for the spread of the virus in the community and nosocomials.(7)

For the development of a telehealth service, it is necessary to have changes in the clinical care processes, with a view to drastically reducing the proportion of face-to-face care. Thus, the strategies adopted were to offer face-to-face clinical visits only to patients who cannot access telehealth technology or who, for some event, had urgent clinical problems, and consequently would need a more detailed clinical evaluation.(7)

In the outpatient setting, a study shows that telecommunications allow those patients with chronic wounds to continue receiving high quality care in the comfort and safety of their own homes.(8)

Studies show that telemedicine bypasses a major barrier for many patients: travel to health services. Thus allowing the provision of services at a distance for patients who cannot access health services. These virtual visits, in addition to solving the problem of direct contact with the patient, made impossible by the pandemic, generate time savings for providers and patients.(8)

A study conducted in the United States points to a massive migration to telemedicine between the months of March and April 2020, with an incidence of a decline of more than 80% in face-to-face visits. There was also an increase in the volume of emergency care via telemedicine, where there was a growth that varied from 82 visits in March to 1336 after 15 days.(9)

The professionals, responsible for providing health services, were subjected to pressure from the workload, in addition to the burden of exhaustion and the diseases that affected them. Thus, the use of telemedicine could provide, for example, advanced screening, improve communication between professionals and their patients, facilitate the provision of care, reduce the risk of direct exposure from person to person, perform telemonitoring of patients, conserve hospital resources, among others.(10)

Considering that the health service could collapse during the pandemic, if it had overloaded consultations that could be carried out in another way, telemedicine becomes a safe and efficient way to attend, guide, diagnose and monitor the treatment of its patients.(10)

DISCUSSION

With the advancement of the pandemic caused by COVID-19, many countries have chosen to maintain only the services of extreme need, such as supermarkets, pharmacies and the emergency room and hospitals. In these circumstances, thousands of appointments and elective surgeries were canceled in order to maintain the

physical integrity of doctors and patients, preventing the spread of contamination by the virus.

However, over the months and without the prospect of releasing the immunization, the need for resuming activities arose, as many patients needed to keep appointments for the maintenance of treatment - such as psychic illnesses that require regular monitoring, and telemedicine, which was already released by WHO since 1990 and used by some professionals, gained space and became a solution for safe return.(11)

In this context, on April 15, 2020, the Official Gazette of the Union published Law No. 13,989, sanctioned by the National Congress, which regulates the use of technological resources in health services¹¹ that would operate on an emergency basis during the pandemic period. In the document, it is established that telemedicine is understood as a means of research, prevention and assistance performed remotely and that the doctor must inform the patient of all the limitations present in this type of consultation(11), such as the inability to perform the very important exam physicist.

In systematic studies it was noticed that, despite the limitations, teleconsultation has been a pillar for reducing the flow of patients when it makes use of, for example, advanced screening(10), which is a virtual system in which patients consult themselves remotely and, when possible, are instructed not to seek health care because feasible care at a distance. In this way, this triage system allows for a reduction in the workload of medical center professionals and improves management in times of crisis.

Telemedicine visits require the use of two-way, synchronous (real-time) audiovisual portals for communication with the patient.(10) It is also noticed that the use of remote routes establishes good communication and rapprochement between health professionals and their patients because, if this bond is established, it is possible to answer questions through chat networks. Offices can use routine consumer video applications - such as Whatsapp and Skype - or can select more sophisticated medical applications that interface with platforms(12) facilitating care, monitoring and preservation of hospital resources, reducing the flow of patients in hospitals.

Thanks to technological improvements and cost savings in telemedicine solutions combined with high-speed internet and the mass dissemination of smartphones, it is possible to apply this structure and quickly deploy video teleconsultations in a patient's home.(13) However, these technologies do not covers the entire population.

In this respect, it became evident that work done at a distance is, whenever possible, ideal in times of pandemic. However, attention must be paid to the guidelines established by law No. 13.989 in order to prevent the professional's rights and duties from being harmed.

CONCLUSION

The use of telemedicine and the possibilities that comprise it was the intervention evidenced as the main adaptation adopted by health professionals in times of social distance due to Covid-19.

Its main reported benefits were the possibility of access to the population, given the need for social distancing, and the continuity of medical care based on the use of technological communication tools. The possibility of paying attention to people's health was evidenced despite the overload of consultations resulting from illness by Covid-19.

Considering that the Covid-19 pandemic has not yet been overcome, other tools not yet described in the literature may be in use for the development of the work activities of health professionals, which is shown to be a limiting factor in this study. Thus, it is recommended to develop future new studies, with more detailed methodologies, in order to highlight all these tools used during the pandemic.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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PERCEPTIONS ABOUT THE EMOTIONS ON THE HEALTH-DISEASE-DEATH PROCESS IN MEDICAL TRAINING: AN EXPERIENCE REPORT

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KEYWORDS: *Emotional Self-Regulation; Physician-Patient Relations; Education, Medical.*

INTRODUCTION

Emotional reactions are stimulated by factors that act directly or indirectly, related to the need of the necessary,(1) with social representations(2) and with perceptions of the world.(3) Therefore, the study of emotions in undergraduate medicine offers a unique experience that brings theoretical issues closer to medical practice, acts in the decision-making process(4) and in the attitudes of the trainee, also enabling a more empathic, human relational dynamic and holistic(5) between doctor and patient. Thus, bearing in mind that the Pedagogical Plan of the Medicine course at the Federal University of Amapá presents a scarcity of this theme, the present report is justified due to the importance of emotions and the development of emotional skills for medical training. Thus, the study aims to report the experience in the optional curricular component "Emotions in the health, disease and death process" in this graduation and its result in academic training.

EXPERIENCE REPORT

The experience took place in the second semester of 2019, in the context of the elective course offered to 40 students from the third to the sixth year of medical school, with a 60-hour workload in total. In this course, dynamic classes were held contemplating the study of emotions based on the health-disease-death model, those classes were divided into thematic blocks and evaluative activities using different methodologies, such as staging, book and scientific papers summaries, seminars and debates.

Introductorily, a ludic activity was performed with the students about their expectations on the subjects offered in the course, an opportunity in which each one classified an episode of their life, according to the feeling indicated on the card (anger, love, joy, sadness or shame).

After this introductory moment, the first thematic block focused on the biopsychosocial conceptions and factors regarding the historical, philosophical and anthropological aspects of the health-disease binomial through the reading of scientific articles and discussions in the classroom, as well as the role of the expression of emotions in the health-disease process, highlighting the professional ethics and how emotion contributes to the well-being of the patient and the care team.

In the second block, themes such as the impact of the disease and hospitalization on the family and its reflection on the patient-physician relationship were staged, with an emphasis on the empathic capacity of the medical professional in the face of illness. In this manner, clinical scenarios were simulated in order to encourage students to identify inconsistent attitudes and coping solutions.

In the third block, the emotional challenges regarding finitude were discussed, with emphasis on the historical and social representations in the world context about mourning, burial and the relation between the individuals' wishes and their family. The phases of mourning⁶ and the physician's behavior in dealing with emotional demands and feelings against incurable diseases were also correlated and discussed.

Finally, assistance and palliative care by a multidisciplinary team was discussed, with a seminar being held, as a final assessment, about death in cultural and religious processes, in which each group discussed death and culture in different ethnic groups.

REFLECTION

Considering that the emotional reactions are the basis for the physician's first contact with the patient and that the handling of emotions affects the care and the professional's decision-making process (4),

complementary activities help to improve(7) and provide tools for the student to deal with the dilemmas found in clinical practice, playing an important role in the academic education.

The experience showed the students' difficulty in dealing with issues inherent to the patient-physician interaction that entail the management of emotions, this was observed on the written reports and in the classroom simulations. In a similar way, the exploratory study(5) pointed out a difficulty for the students to establish a closer, global and humanistic relationship with the patient due to the difficulty of applying emotional aspects.

In addition, this report found a lack of insertion and studies of emotional skills in medical training and in its curricular structure, which are so essential in the academic development and professional performance, as noted by the study from São Paulo.(8)

To fill this gap, the course provided opportunities for the application of distinct teaching methodologies, on a continuous basis, in order to work on emotional management and subjectivity in interpersonal communication and had the objective to strengthen mutual trust(3) between patient, physician and family through the knowledge of the stages linked to the health-disease-death model. In this sense, the work(8) demonstrated that continuing education and practical activities contribute notably to self-confidence, emotional maturity and to the teaching-learning process.

Furthermore, the course enabled the collaboration of students from different semesters and the participation of various professionals and religious representatives. In view of this diversity, the study enabled the expression of different ideas and points of view in order to provide emotional maturity, develop empathy and compassion, strengthen the process of personal reflection, improve future professional performance, and build an ethical and humanized behavior to deal with the limitations of the curative biomedical model (2,5,8) that is still present in medical school, which dissociates rational thinking from emotional expression.

It is noteworthy that the study has limitations, since it was not performed the quantitative measurement of the perception of emotions, nor the sociodemographic analysis. Despite this, this experience suggests the need for more comprehensive and robust studies to integrate student's emotional processes during medical training.

CONCLUSION

The study of emotions and death in medical training has little insertion in the medical curriculum, especially in the institution reported, notably in relation to scientific research and production. However, appropriate training

greatly influences the improvement and development of students, by enabling the creation of spaces for reflection, debates and the stimulation of ethical skills to deal with conflicting situations in the clinical reality and, mainly, with regard to the patient-physician relationship. It should be noted that the experience allowed the exchange of knowledge through different perspectives taking in consideration the role of emotions in different contexts for a more comprehensive and humanistic care practice, and in addition, schooling the future physicians on how to develop strategies to manage each situation properly.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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HEALTH OF THE BLACK POPULATION: UPDATING STUDENTS KNOWLEDGE, AN EXPERIENCE REPORT

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KEYWORDS: Mental Health; Racism; Dermatology; Education, Medical.

INTRODUCTION

According to the 2010 census from Instituto Brasileiro de Geografia e Estatística (IBGE), the black community constitutes more than half of the Brazilian population. Also, as reported by the Instituto de Pesquisa Econômica Aplicada (Ipea), in 2008, the black community represented 67% of the total public covered by the Sistema Único de Saúde (SUS) (1-2). Thus, specific care to promote their health is to be expected; however, it is noticed that medical education neglects some aspects that make these approaches difficult.

The struggle of the Brazilian black population to access health care is mostly due to institutional racism. That is, despite the majority of SUS-dependents being black or brown, the state institutions still fail to provide adequate services, aggravating the differences of the social determinants of health of the black population (3). In addition, some practices of racism became socially accepted, characterizing the structural racism, and favoring the perpetuation of ethnic disparities. Thus, racism is still present in medical training and in the patient's experience in the service, which may deteriorate the quality of the conduct and the user's comfort.

Thus, it is pertinent to discuss academic education, aiming to improve it by adapting to reality, preparing future professionals for situations they will experience. This article is an experience report regarding the performance of an activity, by a local committee from IFMSA Brazil, on the health of the black population, which addressed aspects of mental health, women's health, dermatology, and the impact of institutional racism in these approaches. It also aims to highlight the importance of considering different ethnic-racial aspects in the education of future health practitioners.

EXPERIENCE REPORT

The activity "Update: Health of the Black Population" occurred in four meetings in the third week of August 2020, held via "Google Meet". The event was announced on the local committee's Instagram with 91 entries through a pre-event questionnaire form. Post-event forms were sent every day to register the presence and to assess the impact.

On the first day of the event, a lecture was given by psychologist Mafoane Odara, who introduced the theme with necessary concepts about the context in which the black population lives, such as institutional and structural racism. In the end, a debate was opened dealing with the historical context of racism in Brazil and its development and implications over the years, which included interactions and personal reports from participants.

Subsequently, the second meeting was held addressing the theme: dermatology applied to black skin. Dermatologist Camila Rosa spoke about the characteristics and specificities of black skin and how the main dermatological pathologies that affect it are little detailed in the academic studies of medical students.

The third meeting was mediated by gynecologist and obstetrician Débora Britto. It focused on the impact of racism in this area, bringing data on violence against women, obstetric violence, maternal mortality, and health care for black women.

The last day of the event featured a lecture by psychologist Deborah Medeiros, who addressed the consequences of racism on mental health. Some of the topics covered were the objectification of black individuals and their ensuing psychological traumas and the importance of racial literacy in overcoming them. Finally, in addition to the post-event questionnaire, an

evaluation to assess the impact of the event was sent to the participants, with affirmative answers from 29 of them.

REFLECTION

During the workshop, it was noticed that institutional and structural racism radiate within academic backgrounds. In the lecture that covered dermatology, it was possible to notice that there are differences between the manifestation of diseases in white skin and black skin. To illustrate racism in the area, dermatological lesions in the blacks make up a small percentage of publications, having little visibility in medical teaching and may compromise their recognition and diagnosis (4).

Furthermore, gynecology and obstetrics were also explored, presenting alarming data about the reality of black and SUS-dependent women. This data covered aspects such as maternal mortality, which in 2012, according to the Mortality Information System (SIM), 60% of the victims were black women, in contrast with white women who were only 34% of victims (5). Beyond that, it is clear that the access of this population to certain services, such as mammography, is more restricted (6).

As for mental health, two issues can be highlighted: the cultural issue (through stereotypes that affect psychosocial well-being) and the issue of internalized racism, which has a significant impact on self-esteem (mostly in childhood). This situation highlights the relevance of racial literacy, educating individuals to recognize and fight racism (6).

However, there were some obstacles to the event. One of them was to compose a cadre of black professionals. This problem was solved by conducting an active search on social networks, where specialist professionals belonging to the black population were found. Another challenge was the digital platform to be used, due to the unknown demand from viewers and their tools. Finally, the platform chosen was Google Meet, which met the needs of the event.

Thus, the need to highlight the needs of the black population during the training of health practitioners is noticeable. The event showed that 48.3% of the participants considered that the health issue of the black population was not well addressed throughout their institutional education. Besides, more than 80% of the participants considered the lack of knowledge on this theme in their professional practice as a serious issue. The event aimed to fill part of the gap in the curriculum of health majors and raise awareness about its relevance, both professional and social.

CONCLUSION

That said, the construction of critical and humanized reasoning regarding the gaps in academic education on the visibility of specificities of the black population, in addition to the ethnic factor as a social determinant of the health-disease process, is necessary to guarantee the equity and quality of the health system. Thus, the event highlighted aspects related to the lack of sufficient approach to the health of the black population, promoting reflection about the need for awareness in the exercise of the profession and bringing this discussion to the academic environment, which also may benefit other professionals. Finally, it is necessary to continue to promote this awareness in theoretical presentations and, if possible, completed by practical demonstrations.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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POSITIVE IMPACT OF RESEARCH, DATA ANALYSIS AND STATISTICS LEARNING ON MEDICAL EDUCATION: AN EXPERIENCE REPORT

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KEYWORDS: Global Health; Education, Distance; Information Dissemination

INTRODUCTION

During the pandemic, an extensive amount of information has been shared in media outlets, whether or not they are accurate. In that sense, health professionals and students must understand basic concepts in subjects like statistics, public health, and epidemiology to correctly interpret the data daily being released.(1)

Statistics and its health applied branch, biostatistics, are considered areas of applied mathematics needed for designing and analyzing data, requiring competencies in statistical models and probability.(2) Public health and epidemiology, on the other hand, require physicians and medical students' previous knowledge in research methodologies and statistics, to develop evidence-based clinical practices.(1,3)

The Coronavirus Visualization Team (CVT) is an initiative founded by Harvard undergraduates aiming to involve students in research projects, while also amplifying knowledge in data analysis and helping to create accessible and veridic insights to the public. The student-founded non-profit organization has more than 20 projects aimed at reporting the impacts of the COVID-19 pandemic from different perspectives in different platforms and around 400 active members.

The aim of this experience report is to describe how experience in CVT can result in professional and personal growth, specially for medical students.

EXPERIENCE REPORT

New members for the team are selected through an application form that gathers applicant's main interests, abilities and previous experiences.

Upon entering CVT, members can join projects with different approaches to the COVID-19 pandemic, according the previously cited interests. An example is

"Project Breaking News", that has as a goal providing noteworthy visualizations

on pandemic related topics that are currently trending or that have a considerable impact during the pandemic. Further, Project Breaking News is a great opportunity for those with a limited background in programming and data visualization.

CVT also provides weekly sessions in which members can learn new skills on data analysis and programming from more experienced team members, as well as receiving help in specific obstacles projects may be facing.

Besides that, in the following weeks after joining the team, participants can take part in events intended to promote education and discussions, providing opportunities to evaluate the repercussions of the pandemic in several fields. There are events led by students, which allows for the exchange of experiences from different realities. For example, in the "International Perspectives on COVID-19" fireside chat, led by members from Canada, Brazil and Bangladesh, there was the opportunity to approach how different countries are approaching the COVID-19 pandemic, by directed questions on topics such as the economy, society, politics, giving the opportunity for both speakers and attendees to discuss.

Additionally, panels are also available, in them, professionals from different fields, including physicians, mathematicians, economists give talks and team members have the opportunity not only to learn about various subjects but also to make questions and share experiences. Examples of topics discussed were "Innovation of student mental health during COVID-19" and "Understanding COVID-19: A Community response".

CVT is an ongoing initiative, and projects results are shared as the team progresses in its research and data analysis.

REFLECTION

According to previous studies,(1,3,4) despite the high importance of subjects such as epidemiology, statistics, and public health, there is still a lack of preparation for medical students in those areas. In that sense, many students have found in online activities the opportunity to extend their knowledge in underrated subjects during a period in which regular classes were not maintained.

Understanding of Epidemiology and Statistics is crucial in Medical education, and the practice of skills related to these subjects allows a better understanding and application of concepts in future practices.(4) In this sense, the Coronavirus Visualization Team promotes the development of both theoretical and practical abilities in these sectors through sessions made available weekly and within each project. This makes learning accessible for most audiences, as they do not require prior experience to participate and allow self-paced learning according to your time commitment each week.

Moreover, peer and "near-peer" mentoring are pointed out in literature as an efficient way to promote learning and experience.(5) Weekly sessions occur in a peer mentoring like system, in which more experienced team members have the opportunity to teach and share experiences with the novice members, allowing the learning to be individualized and case-oriented. These meetings can range from workshops on specific skills to advice to those applying to college, allowing for a wide range of knowledge to be shared.

International collaborations have a positive impact on education and are usually done between Universities to propose more opportunities for students and professionals, these can be done in-person and online.(6) Although the Coronavirus Visualization Team is a student-founded and led organization it provides great opportunities for partnerships between students and professionals, even though, due to the COVID-19 pandemic, all projects are conducted online and use platforms available throughout the entire process, from recruiting to the publication of data. This allows for integration with international students granting members not only the opportunity to connect with people from various realities, but also the possibility to democratize knowledge(7), being a platform to facilitate the access of students from different countries to information and consequently help improving health quality in developing countries through the participation in projects initially established in developed countries.

However, downsides are found in the project. The main ones being time incompatibility, due to members being from different time zones and eventual inactivity within projects.

CONCLUSION

Coronavirus Visualization Team offers numerous opportunities for people with diverse backgrounds, being possible the acquisition of skills in the medical field. Collaboration with this diverse community is enriching not only professionally, but also personally, as the large scope of possibilities allows for connections with those in different fields expanding understanding of subjects and ability in communication and teamwork. Overall this initiative offers a unique chance to engage with individuals seeking to help communities and promote changes in their realities, with the possibility to lead projects that generate local and international conscientization about the issues identified, facilitating effective interventions.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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The COVID-19 pandemic was much more than just a disease. It had a political role, raised discussions on human rights, made us think about the social determinants of health and how they are inserted daily in our lives. It made us see information such as age, sex, race and access to health differently when we analyze a topic. And, more than that, it made us actively look at strategies on how to face these differences and grow as a human society.

The doors of public health are, now and always, wide open for these discussions. It is only fair that we publish and talk about it more, right?

I hope, with affection, that this edition will make each orange heart see more the importance of our discussions and that we will always grow together!

DENGUE, ZIKA AND CHIKUNGUNYA AND THEIR RELATIONSHIP WITH THE CLIMATE: AN INTEGRATIVE REVIEW

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KEYWORDS: Arboviruses; Climate Change; Zika Virus; Public Health.

INTRODUCTION

The climate changes that we are currently experiencing give rise to numerous impacts on the environment. In this context, an environment extremely modified by human life has brought as a consequence environmental imbalances that favor the dissemination of several diseases, being highlighted in this integrative review, the arboviroses. Furthermore, taking into consideration the importance within public health policies and the need to prevent the spread of disease transmission vectors, it is necessary to know how these climate changes favor the dissemination of diseases.(1)

In relation to vector-borne diseases, the connection with social and environmental mechanisms is inevitable(1), since the life cycle of vectors and their propagation is directly related to the environment in which they live. The increase in the release of Greenhouse Gases (GHG)(7), globalization and the lack of control of environmental deforestation are some of those responsible for the increased dissemination of vectors causing diseases, such as *Aedes aegypti* and *Aedes albopictus*(1). In tropical and subtropical countries such as Brazil, vector-borne diseases are closely related to important public health, economic and health issues. Besides the already known endemic areas, the expansion of the incidence area of pathologies such as zika, dengue and chikungunya has been recognized as fruits of the planet's environmental disorders.(1) Thus, the expansion of these diseases becomes a challenge for health professionals and researchers, since it reinforces the need for continuity in the efforts related to human care and with the planet.(1)

The objective of this integrative review was to present the relationship between the current perceived climate changes and the increased incidence of diseases related to the *Aedes aegypti* vector, with special focus on arboviroses: dengue, zika virus and chikungunya,

especially in the Brazilian population. In addition, it seeks to discover how climate change influences the emergence of arboviroses impacting on human health, in the current context.

METHODS

The methodology used to conduct the article is the integrative review, whereby the survey of the articles to be used in the study were systematically searched in the Latin American and Caribbean Health Sciences Literature databases (LILACS) and in The Scientific Electronic Library Online (SciELO) portal on July 31, 2020. The descriptors were chosen according to the Health Sciences Descriptors (DeCS), through the Virtual Health Library (VHL). The keywords chosen were: climate change, arboviruses and zika virus, which were searched using combinations between climate change and the descriptor, resulting in two combinations.

The articles resulting from the search had their abstracts read and analyzed in relation to the inclusion and exclusion criteria that were defined for the present review. As inclusion criteria were selected articles in Portuguese, English and Spanish, which were published between 2009 and 2019, which referred to the theme in relation to the proposed integrative revision and which were indexed in the aforementioned databases. The exclusion criteria were the theses and monographs and the articles that were indexed in both databases were computed only once.

For critical evaluation and discussion, the articles that were approved in the reading of the abstract were read again, now in their entirety, and then the preparation of Table 1 was done with the completion of the cataloguing form.

RESULTS

The data collection resulted in 15 articles that were subsequently analyzed and selected according to the established inclusion and exclusion criteria, resulting in 6 articles. With the complete reading of the articles, the cataloguing form was filled out with the following data: source database, title of the article, authors, data of the article in the journal and the journal itself (name, volume, number, pages and year), and a consideration/theme of the article. These data are presented in table.(1)

Table 1 - References selected from the LILACS and SciELO database

Origin	Article Title	Authors	Periodics (Vol., no., pg., year)	Account/Thematic
LILACS SciELO	Presença de mosquitos (Diptera: Culicidae) em piscinões na zona leste de São Paulo.	de Cássia Silvério, E., & Urbinatti, P. R.	Revista da Sociedade Brasileira de Medicina Tropical, 44(4), 504-507, 2011.	Climate changes and the appearance of the mosquito, <i>Culex quinquefasciatus</i> , vector of filariasis agents, arboviroses and factor of discomfort to the population.
LILACS SciELO	Doenças sensíveis ao clima no Brasil e no mundo: revisão sistemática.	Sousa, T. C. M. D., Amancio, F., Hacon, S. D. S., & Barcellos, C.	Revista Panamericana de Salud Pública, 42, e85, 2018.	Systematic review according to the PRISM methodology on climate sensitive diseases.
LILACS SciELO	Arboviroses emergentes e novos desafios para a saúde pública no Brasil.	Lima-Camara, T. N.	Revista de Saúde Pública, 50, 36, 2016.	The modification of the environment due to anthropogenic actions and the challenges of public health in the face of the increase of arboviroses.
LILACS	Lancet Countdown: Briefing para Políticas de Saúde no Brasil.	Floss, M., & Barros, E.	Rev. bras. med. fam. comunidade, 2286-2286, 2019.	Annual assessment of the state of climate change and human health and evidence-based policy guidance.
LILACS	Dengue, Zika e Chikungunya - desafios do controle vetorial frente à ocorrência das três arboviroses - parte I.	Neto, A. S. L., do Nascimento, O. J., & de Sousa, G. D. S.	Revista Brasileira em Promoção da Saúde, 29(3), 305-312, 2016.	Dengue, Zika and Chikungunya as arboviroses that pose challenges to public health and vector control.

SciELO	Emerging infectious disease and fast-track publication: when public health gets priority over the formality of scholarly publishing	Pirmez, C., Brandão, A. A., & Momen, H.	Memórias do Instituto Oswaldo Cruz, 111(5), 285-285, 2016.	Changes in temperature and the spread of zoonoses: an advance for the scientific community in combating these pathologies.
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Source: Prepared by the authors with adaptations by Souza²

DISCUSSION

The impacts of industrialization and large-scale production of commodities have resulted in an increase of the release of GHGs, especially carbon dioxide (CO₂), which are responsible for the rise in temperature that the planet has experienced in the last century.(7)

Brazil has an important role within the context of global warming, due to the fact that it is considered the seventh largest GHG liberator country¹ and as a result of this fact, the emergence of some diseases transmitted by vector mosquitoes, especially arboviruses, caused by viruses such as Chikungunya (CHIKV) and Zika (ZIKAV)(1) is observed. The same author also highlights in his article the West Nile Fever (WNV). Another author discuss other diseases in addition to those focused on in the present review, since climate change is also a risk factor for the development of cardiovascular, respiratory, digestive, and zoonotic diseases.(4) The methodological research focused on the search of articles using more general descriptors and not by vector or disease itself, which may have influenced the number of articles obtained, thus interfering in the possibility of other diseases being associated to climate change.

Despite efforts to contain the release of polluting gases and, also to reduce deforestation in the Amazon, achieving this goal has become a challenge, as a result of the increase in the number of burnings that has grown considerably in recent years.(1)

Other causes also cited in the selected articles were those that lead to an anthropic modification of the ecosystem, such as the unbridled population growth that expanded the habitat of primary vectors, especially the *Aedes aegypti*, in densely populated areas, the implementation of large hydroelectric projects in the Amazon region(4) with deforestation, the construction of flood containment reservoirs to cope with floods due to a delay in a drainage system in which artificial sites of oviposition of mosquitoes make the proliferation and dissemination of

vectors³, and finally, globalization⁴, promoting an increase in the flow of people between countries, one of the main deciding factors in the introduction of both CHIKV and ZIKAV in the Americas from 2014.⁽⁶⁾ Due to the lack of in-depth systematization of the study, the findings may not be consistent with reality, due to the propensity to publish articles with significantly relevant results.

The dynamics of ecosystems are related to climate variables, influencing directly the hosts and reservoirs, as well as the life cycle of the vectors. All studies included in the systematic review⁽⁴⁾ in this article, that performed projections of disease incidence according to various climate scenarios denote temperature as the main climate variable studied, followed by precipitation and humidity.

Studies show that a warmer environment encourages the spread of vectors responsible for causing disease in the human species. Among the pathologies from which climate change can originate due to an increase in temperature and variation in rainfall⁽⁴⁾, we can mention arboviruses, the main ones causing dengue fever, ZIKAV and Chikungunya fever.

Dengue is considered the main re-emerging disease in tropical and subtropical countries⁽⁴⁾, and in 2016 it became endemic in more than 120 countries, with about 100 million cases registered each year⁽⁵⁾ and the highest mortality rate among the arboviruses of which Brazil is responsible for approximately 70% of the cases in the Americas⁵. This data could justify the fact that all researchers related in the articles found are Brazilian. The genus *Aedes* presents high vector competence for CHIKV, which makes this arbovirus a potential threat to the country. ZIKAV is related to the appearance of microcephaly and other foetal deformities due to vertical contamination from the mother to the foetus, and is considered by the World Health Organization (WHO) as an international public health emergency⁽⁶⁾, with autochthonous transmission in 21 states of the federation.⁽¹⁾

The increase in global temperature favors the growth of the larvae of the *Aedes aegypti* mosquito and *Aedes albopictus* vectors of the mentioned diseases, contributing to a more effective reproduction cycle, thus reducing the extrinsic incubation period, which refers to the time it takes for the virus to invade the mosquito's salivary gland, making it infective, with subsequent transmission of this etiological agent¹. Warming also causes regions where previously no arboviruses were found to present such pathologies as a public health problem.⁽⁴⁾

The increase in global temperature favors the growth of larvae of the *Aedes aegypti* mosquito and *Aedes*

albopictus vectors of the mentioned diseases, contributing to a more effective reproduction cycle, thus reducing the extrinsic incubation period, which refers to the time it takes for the virus to invade the mosquito's salivary gland, making it infective, with subsequent transmission of this etiological agent.⁽¹⁾ Warming also causes regions where previously no arboviruses were found to present such pathologies as a public health problem.⁽⁴⁾

The entrance of these arboviruses in countries already endemic to dengue, such as Brazil, may result in the collapse of health services during simultaneous explosive epidemics,⁽¹⁾ in addition to impacting on occupational activities due to some disabling symptoms persisting for months in those infected. However, a more thorough methodological search would be necessary in order to corroborate with the scientific evidence proposed above.

Thus, understanding the causes of arboviruses and establishing public policies to address these diseases are fundamental attitudes to global health.

The combination of a more efficient vector control, which impacts on the transmission force of the disease, with the vaccination of large population contingents, which decreases the proportion of susceptible, seems to be a promising strategy.⁽⁶⁾

However, the lack of an effective and cost-effective vaccine against the four serotypes of DENV and the unavailability of specific treatment and immunobiologicals against CHIKV and ZIKV⁽⁶⁾, combined with the difficulty in diagnosing new arboviruses and the cross-reactions in diagnostic tests, still affirm the protagonism of the fight against *Aedes aegypti* as a central strategy of containment of arboviruses.⁽¹⁾ Therefore, meeting the goals of reducing environmental pollution and global warming is essential in prophylaxis of the emergence and worsening of these diseases.

CONCLUSION

This integrative review promotes a synthesis on climate change and its relation with the incidence of diseases linked to arthropod vectors, with emphasis on *A. aegypti* and *A. albopictus*, but some limitations stand out, such as the generalization of the descriptors, with few articles for analysis, which are not also methodologically evaluated to assess whether they are of low quality or not. However, it manages to bring an overview that the changes generated by man in the environment have several causes, among which we highlight the increase in the release of GHG, globalization and all anthropic processes of ecosystem change.

Despite the commitment of Brazil and several countries to minimize the effects of global warming, it is remarkable

the difficulty encountered to implement concrete and effective actions. The study highlights the impact of these changes on arboviroses, whose spread is favored in the scenario of imbalance analyzed.

And as a consequence of the reproductive cycle of diseases such as dengue, zika and Chikungunya, they emerge more efficiently, observing an increase in the number of cases of arboviruses, as well as the expansion of endemic areas.

In view of the data found through the research and its relevance to human health, it is necessary to understand both the arboviroses mentioned and other pathologies that are also influenced by climate change, so that prophylactic measures can be taken to maintain public health.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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EXPERIENCE REPORT: VACCINE PRODUCTION ROUNDTABLE DURING THE FIRST CONFERENCE OF SCIENCE, HEALTH AND SOCIETY

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KEYWORDS: *Anti-Vaccination Movement; Vaccination Refusal; Vaccination Coverage.*

INTRODUCTION

The etymology of the word vaccine stems from the Latin word *vaccinus*, derived from *vacca* (cow).(1) This origin, which, not by mere chance, was the discovery result of the British naturalist Edward Jenner, who in 1796, noted differences between human and bovine smallpox and how immunity relationships could be established between the two disease types. The first vaccine development represented the start of a new era in public health history.(2) However, the conquest of a scenario without countless immuno-preventable diseases since the 20th century has been under constant threat facing vaccine population refusal. As an example, in the Brazilian context, vaccination rates for measles - a disease considered eradicated in the national territory - had levels close to 80% between 2014 and 2018, coinciding with a resurgence period of this disease cases.(1)

Therefore, the aim of this experience report is to relate a roundtable of technical and social aspects involving the vaccine that has occurred during an IFMSA Brazil committee UESB event.

EXPERIENCE REPORT

It consists of a descriptive study experience report about the "Vaccines production: Development and social impact" roundtable, which was the first day on I Conference of Science, Health and Society, a fully online and free event that was idealized by IFMSA Brazil committee UESB during July 2020.

The roundtable happened on July 1st, at 7 p.m, via the internet. The guest speaker for the event was specialist Natália Pasternak, PhD in microbiology and founder of Instituto Questão de Ciência. Furthermore, the discussion was mediated by UESB medical scholars and open to public participation. Additionally, a virtual library with

several scientific materials about the themes' variables were available during the action.

Over the course of the evening, the following talking points were raised: production process of different vaccines types, etiology and dangers of the anti vaccine movement, herd immunity, Coronavirus 2019 disease vaccine prospects, and the role of science in the current pandemic scenario.

REFLECTION

In 2019, vaccination hesitancy was considered as one of the 10 principal threats to health according to the World Health Organization (WHO)(3), in this sense, the thematic discussion emerges in parallel with a decline in immunization statistics, especially in a Brazilian context. Thereby, the clear and didactic approach (since the process involves vaccine elaboration by emphasizing its benefits and social responsibilities), would be to attempt to minimize the obstacles that exist between the science field and society. After all, lack of clear information, in an accessible way, is one of the reasons that causes the vaccine indicators reduction and, in consequence, the return of controlled diseases.(2,4)

Thus, the event, being in a virtual space, provided an impressive and diverse audience reach, which, consequently, performs the opposite of the common, takes information instead of misinformation. This achievement, facing the pandemic situation, is related with the increased search of the term "vaccine" on Google, as well as, this search caught the 100 scale popularity scale, as the own platform says, in 2020 March and in the next months, if compared with before.

In addition, as the event promoted by IFMSA Brasil UESB was organized by medical students, they were able, during the realization and preparation of the event, to

have significant learning on the topic. Therefore, as long as they are to maintain the trust and confidence of the community and its vaccine decisions, it is also important for these students to be always acquainted with quality research and practice.

Nonetheless, some challenges that involve the completion of objectives of a project when carried out online remain. Among these challenges are: limited promotion, as the amount of followers on digital platforms and visualization algorithms can spoil the reach, as well as connectivity issues that can hinder both transmission and event access, in this case, the roundtable.

Besides, an approach about the vaccine cover decrease was made. With this, it was possible to understand that the anti-vaccine movement is not solely responsible for the change in numbers, but rather a combination of the movement and vaccine refusal, that is, the rejection, delay or underestimate for a vaccine(1), coming from its own success that the mass immunization obtained. The phenomena often occurs with a society that has a lack of experience with eradicated diseases, which can result in prevention contempt.

In the meantime, the event was configured as a support tool for the vaccine acceptance process, which according to the Strategic Advisory Group of Experts Working Group on Vaccine Hesitancy (SAGE-WG), is determined by a model called "3Cs", which includes: confidence (credibility in health professionals and vaccine effectiveness), complacency (low perception of the risk of vaccine-preventable diseases and their importance) and convenience (availability and accessibility of vaccines and health services).(4)

Thus, it is possible to observe that even with a small event population sample, the development of moments like this leads the population to see a scenario that is often not seen and is crucial to solve this problem, especially when the "complacency" factor is affected, as was the case with the discussion held during the roundtable.

CONCLUSION

Lastly, because of the pandemic context and the social outcry for the vaccine development against the disease caused by the SARS-COV-2 (COVID-19), it is convenient to use this moment to spread knowledge about the importance of the immunization process for society. Besides, given the validity, especially in social media, of movements that try to propagate non-vaccination justifications, it is a social responsibility in defense of public health to create spaces for both the exchange and dissemination of scientific information that can be used

to combat the false statements that have continuously threatened the historic achievement that is the vaccine.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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MENTAL HEALTH OF SLAUGHTERHOUSE WORKERS: INTEGRATIVE REVIEW

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KEYWORDS: Public health; Slaughter of animals; Occupational health.

INTRODUCTION

Occupational health is a term that encompasses workers' health and their interaction with surroundings during the exercise of their work, current challenges in this area are interaction between workers and new technologies, chemicals and physical energies(1,2). Aging of workforce and specificities of the most vulnerable or neglected groups are also challenges. In Brazil, the importance of including workers in health services, as well as providing information and the need for research in the area are comprehended in the Ministry of Health's National Worker Health Policy, published in 2004.(2)

About worker's mental health, damage caused by acute or permanent exposure to chemical agents and toxic substances, from aggressive factors present in organization and in management of production processes" are characterized as mental disorders related to work.(3) Accelerated work pace, rigid and competitive environment, exposure to violence, monotonous work and others are also associated with negative outcomes.(3,4)

After the importance of the relationship between work and health has been established, absence or limited presence of the topic in medical graduation is questioned. A study carried out in 2016 in medical schools in Paraná, found out that only 50% had Occupational Medicine discipline. These results, which highlight a lack of approach to the theme, were replicated in studies in United Kingdom and Spain.(5) Another Brazilian study, from 2011, also reported that of 159 schools surveyed only 39 had taught the discipline(6). These data reinforce the need of implementation on the subject in medical curricula.

In this context, the present scientific paper aims to understand the relationship between slaughter of animals and worker's mental health. This theme was chosen since

it is rarely studied during medical graduation and the meat industry is related to daily deaths and repetitive and rigid work, which are indicators to mental disorders in workers. In addition, Brazil is one of the main meat producers worldwide, being in 2015 the country with the largest herd and the second largest consumption and exportation of meat in the world.(7)

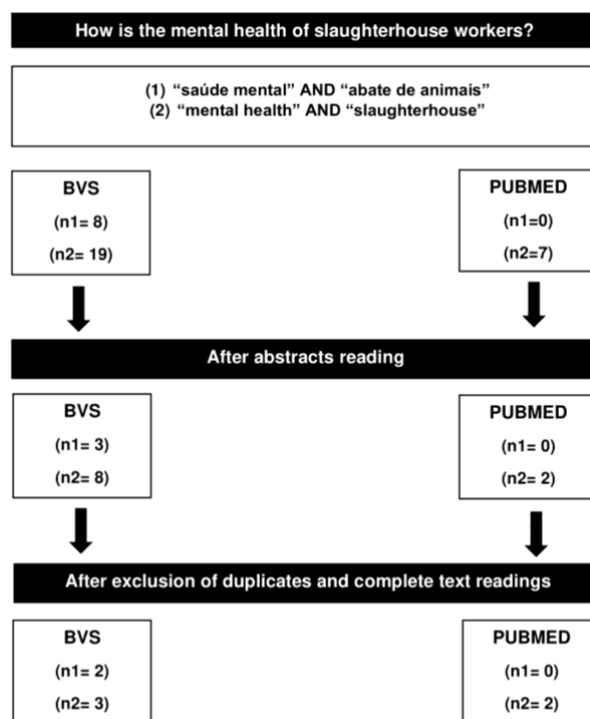


Figura 1. Search done in the databases. Own authorship.

METHODS

This study is an integrative review, which is used to synthesize available research on a given topic, concentrating scientific evidence on it.(8) The Cooper method was followed, being the guiding question "How is the mental health of slaughterhouse workers?". The databases used were Virtual Health Library (pt: Biblioteca

Database	Title of the article	Kind of study and "N"	Journal (vol., n., page, year)	Results
PUBMED	Prevalence of serious psychological distress among slaughterhouse workers at a United States beef packing plant	Quantitative, N=137	Work, vol. 57, nº 1, pp. 105-109, 2017.	It was highlighted the high rates of occupational injuries, as well as stressful working conditions and mental health of workers in the slaughter and animal processing industry in the United States.
BVS (LILACS)	Rodizio de postos em abate de bovinos: para além das dimensões físicas do trabalho	Qualitative approach with focus groups and collective confrontation, N=137	Cadernos de Saúde Pública, v. 34, p. e00095817, 2018.	It was demonstrated that rotations are necessary in this work environment in order to comply with the Brazilian standard NR - 36 and thus guarantee better health and safety conditions for professionals.
BVS (LILACS)	Propriedades psicométricas do inventário de fatores psicológicos de doenças relacionadas ao trabalho: um estudo com trabalhadores de frigoríficos	Quantitative, N=355	Psico-USF, v. 23, n. 3, p. 539-554, 2018.	The Inventory of Psychological Factors in Work-Related Diseases was evaluated. These psychological factors were shown as predictors to the medical leave due to occupational diseases
PUBMED	Conformity of workers' and occupational health physicians' descriptions of working conditions.	Quantitative, N=355	International journal of occupational and environmental health, v. 2, n. 1, p. 10-17, 1996.	The occupational health was related to the perception of doctors about it, revealing how much excessive workloads, combined with repetitive movements, cause direct damage to health.
BVS (LILACS)	Slaughtering for a living: A hermeneutic phenomenological perspective on the well-being of slaughterhouse employees	Qualitative with unstructured interview, N=14	International journal of qualitative studies on health and well-being, v. 11, n. 1, p. 30266, 2016.	It presented the traumatic consequences faced by workers, which included nightmares and recurring dreams, intensified emotional responses, personality changes, as well as other psychic disorders.
BVS (LILACS)	Sickness absence and work strain among Danish slaughterhouse workers: An analysis of absence from work regarded as coping behaviour	Quantitative, N=4407	Social science & medicine, v. 32, n. 1, p. 15-27, 1991.	It was demonstrated that the high rates of absenteeism in slaughterers were mainly due to accidents, dissatisfaction with the work environment, psychological and physical damage, such as Repetitive Strain Injury and Work-Related Musculoskeletal Disorder (READ / DORT).
BVS (LILACS)	Prevalência de transtorno mental e comportamental em trabalhadores de indústrias de abate de suínos e aves no sul do Brasil	Quantitative Epidemiological	Revista Colombiana de Psicología, v. 21, n. 2, p. 163-177, 2012	It was investigated that a large number of medical leaves were due to mental and behavioral disorders caused by slaughter activities.

Quadro 1. Organization of the articles by Database, Title, Kind of study and "N", Journal (vol., n., page, year) and Results. Own authorship.

Virtual da Saúde) and PUBMED and the descriptors chosen were "saúde mental" (mental health) and "abate de animais" (slaughter of animals) from the Health Sciences Descriptors (DECS) and "mental health" and "slaughterhouse" from Mesh, which were combined with the boolean AND.

Then with combination "mental health" AND "slaughter of animals", 8 articles were initially found in the BVS database and 0 in PUBMED, of these 2 were selected by

the abstract and by the full text reading. With the combination "mental health" AND "slaughterhouse", 19 articles were found in BVS and 7 in PUBMED. Of these, 3 were selected by the abstract and full text reading in BVS and 2 in PUBMED (figure 1).

The inclusion criteria were: articles that answered the research question and Portuguese or English as original language; and as exclusion criteria: not answering the research question, not having full text available and having duplicates (same articles were considered only

once). No texts were found in other languages, so this was not considered as an exclusion criterion, in addition, there was no time filter. For analysis of the articles, a table was created with items' origin, title, journal, year of publication and results, as mentioned in results.

RESULTS

The seven studies selected for analysis, published in BVS and PUBMED from 1991 to 2018 were organized in table 1. Article's analysis evidenced that the largest number of publications on mental and behavioral disorders, caused by slaughter activities, occurred in 2012, 2016, 2017 and 2018, totaling 5 articles, while in 1991 and 1996 2 studies related to damage to health and growth in absenteeism levels were identified. Brazil, United States, Denmark and South Africa were the articles' countries of origin.

It is reinforced that in most of researched studies, there was an emphasis on unhealthy working environments, as well as excessive hours that lead to physical and mental disorders. It was also found that the majority of workers present Repetitive Strain Injury and Work-Related Musculoskeletal Disorder (RSI / WMSD).

Specifically, about modifications in mental health of slaughterhouse workers, the following were cited: initially there was exacerbation of feelings such as fear, anger, anxiety, guilt, shame and sadness; this evolved into emotional detachment, personality changes and potential development of post-traumatic stress and major depression. Other coping methods to stressful situations experienced in the workplace would be religion and absenteeism.

DISCUSSION

Slaughter rooms are considered to be one of the places with the greatest risks for workers, since, in addition to reaction of animal's arrival, which can be by kicking, horns and headbutting, there is immense complexity in work processes which must be executed after receiving animals.(9) The association between extreme physical efforts and unhealthy environments, creates risks for both mental and physical health of these professionals.(9,10) In this context, the Regulatory Norm (NR) 36 of 2013, arises in an attempt to establish improvements in working conditions in slaughter and processing companies of meat and derivatives.(11)

There is a significant relationship between stressful situations, performed during daily activities, with activation of cognitive vulnerability factors, as they can result in several pathological conditions related to mental health. Then, the main stressors are work overload and a lack of personal sense in relation to activities developed.(12) The result of constant exposure to these stressors leads to a condition known as neuroticism,

which in the psychology context is identified as one of the Big Five Factors, referring to chronic exposures of stability and emotional adjustment, making the individual prone to experiencing psychological suffering, such as anxiety, depression and even hostile behavior.(13)

In this perspective, psychosocial risk factors, such as high work demands, excessive hours and low salaries, added to the killing animals process, contribute significantly to the increase of psychic tension, thus leading to the neuroticism process mentioned previously.(14) The result of such situations denote that a large percentage of these workers may be removed from their jobs by Mental and Behavioral Disorders, or result in seeking an escape valve in absenteeism.(15,16)

Also associated with psychopathological damage, the Inventory of Psychological Factors in Work-Related Diseases (IP-T),(17) was evaluated in the psychometric sense with slaughterhouse workers in order to estimate the relationship of psychic aspects and chronic diseases at work. As a result, it was shown that anxiety is one of the clinical findings of significant presence, and that it is manifested for more than 6 months, becoming a potential trigger for emergence of other anxiety disorders, according to the Diagnostic and Statistical Manual V (DSM-V), demonstrating the great mental damage faced by these professionals.(18)

A low number of articles on the addressed topic motivated us to include some older ones. In addition, the articles had a small N, usually being limited to a place of work or city, not allowing a global theme view or generalizations based on the findings. Therefore, lack of studies in the area is reinforced, especially portraying the national panorama.

CONCLUSION

The results of this study indicate that mental health of slaughterhouse workers seeks for attention, because working conditions in inadequate environments and constant exposure to stressful agents is related to a series of damages to both physical and psychic well-being of these employees.

It must be said that there are few studies that address this issue, and it is extremely important to develop more research to verify the mental suffering rate faced by slaughterhouse professionals. This should be associated with possible solutions to such problems, since the NR-36 itself was not much studied after its application. Therefore, it is important that public health pays attention to this population in order to study more prevention and care measures for these workers.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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ANALYSIS OF HUMAN ACTION IN THE ENVIRONMENT AS A DETERMINANT OF PUBLIC HEALTH: A NARRATIVE REVIEW

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KEYWORDS: *global warming; neglected diseases; climate changes; air pollution; environmental health.*

INTRODUCTION

The capitalist economic system started in Western Europe and, throughout history, caused several changes in the means of production and urbanization. One of the historical milestones for this system was the event of the Industrial Revolution. Industrialization provided an increase in productivity, with goods sold in larger quantities. The impacts generated by these changes did not appear immediately, however, with population growth and the use of natural resources, it was realized that numerous climate changes could arise from unrestrained consumption.(1)

The warming of the planet is related to the increase in the concentration of greenhouse gases (GHG), an effect that is responsible for maintaining the surface temperature in conditions that allow the existence of life. However, over the past few decades, it has been observed that the increase in the concentration of GHG, especially carbon dioxide (CO₂), has caused an increase in terrestrial temperature.(2)

Between 1961 and 1990, in relation to the average global temperature, there was an increase of about 0.6°C since 1850. It is estimated that before the Second World War the emissions generated by human action corresponded to 10% of everything that is released into the air today. In the Arctic, this increase may have been even greater, reaching up to 2.7°C between the periods of 1918 and 1938. According to new simulation models, if this rhythm continues, in 100 years the whole planet could heat up between 2 and 4.5°C. This could mean consequences such as expansion and advancement of the seas, environmental catastrophes and the emergence of climate-sensitive diseases. In addition, other social impacts on human life would also be caused by this warming.(2)

The aim of this article was to address the issue of the relationship between health determinants and climate change resulting from global warming. The guiding question of the text was defined as: how does climate change affect the environment and generate consequences for human health? The possible consequences generated by environmental changes caused by anthropogenic action are presented and discussed, such as increased emissions of atmospheric pollutants, rising global temperatures, rising sea levels and extreme climatic variations, with their already proven impacts on global health.

METHODS

A total of 19 manuscripts were selected, including articles, books and dissertations, using the inclusion and exclusion criteria on the figures and tables.

RESULTS

Among the studies chosen, 7 address the correlation between air pollution and respiratory diseases, 7 provide general contextualization about climate change and the possible impacts on human health, 2 comment on changes in the soil generated by the heated climate, 2 talk about water and pollution and 1 presents the estimates of GHG emissions in Brazil between 1970 and 2018. Studies that highlighted environmental issues and relations with public health were the main themes.

DISCUSSION

4.1. EMISSION OF ATMOSPHERIC POLLUTANTS

According to the World Health Organization (2016), air pollution, closely linked to global warming, is the biggest cause of deaths related to the environment, reaching rates of up to one in nine deaths that occur annually.(4) In 2017, Brazil occupied 7th place in the ranking of the

largest GHG emitters. In the country, around 71% of these gases are the result of agribusiness action, including changes in land use and agriculture. The burning of fossil fuels also contributes to the current situation, through the generation of electric energy, means of transport and industrial processes, in addition to the generation of waste.(5)

Some of the gases involved, such as CO₂, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide and ozone, as well as suspended particulate matter (PM), PM_{2.5} and PM₁₀, contribute negatively to the health of the population. These substances act in the human body with a pathophysiology equivalent to that of tobacco, crossing the protective barriers of the body and penetrating the cardiorespiratory system, reaching various tissues, such as the heart, lungs and brain.(6)

The greatest impacts of air pollution on public health are in the exacerbation of respiratory diseases. Air polluting agents have already been associated with an increased incidence of asthma development, in addition to its exacerbation.(7) Patients with chronic obstructive pulmonary disease (COPD) were also more likely to be hospitalized. Furthermore, infections of the respiratory system and lung cancer also demonstrated a correlation with high levels of pollution.(8,9)

Additionally to the direct impact with the respiratory system, other systems are also affected by air pollutants. Evidence of an association with cardiovascular diseases, including strokes, was found. Allergic and dermatological diseases, low birth weight, incidence and mortality from cancer and psychiatric disorders, such as depression and suicide, also show evidence of being influenced by pollution. It is also important to highlight the impact on health, especially of vulnerable populations, such as children, the elderly, pregnant women and those with chronic diseases.(9,10,11)

4.2. INCREASED GLOBAL TEMPERATURE

Global warming is responsible for several changes in agriculture, including the loss of soil quality, the decrease in water supply and the destruction of biodiversity. All these changes lead to an unfavorable situation for plant development, giving rise to plants that are more resistant to arid climates, with heterogeneous availability of nutrients.(12,13) This may mean a future shortage of food for agriculture and human consumption and, consequently, an increase in the price of food products. The effect on the food security has a direct impact on human health, whether due to obesity or hunger and malnutrition.(12,14)

Although global warming is mainly due to the influence of industrialized countries, the greatest consequences of

climate change are felt by vulnerable populations, mostly from underdeveloped countries.(13) Because of the great interdependence with subsistence agriculture and other environmental variables, this part of society would be affected by climate change due to the lack of resources, culminating in the appearance of disordered migratory movements. An example is the rural exodus of individuals from the semi-arid region of the Northeast of Brazil, which occurs as a result of desertification.(12,13)

In the urban environment, the disorderly growth of cities, with the replacement of vegetation by concrete and other paving materials, in addition to the emission of gases from industrial processes and means of transportation ends up contributing to the emergence of heat islands.(15) In this context, it is also the populations with the greatest socioeconomic vulnerability that experience the greatest impacts of heatwaves on their health.(15)

Another problem that can be raised by the increase in temperature is the emergence of climate-sensitive diseases (CSD), such as dengue, whose transmission vector, the *Aedes aegypti* mosquito, has its reproduction cycle directly linked to temperature. According to the systematic review by Sousa et al.(16), that disease is ceasing to exist only in tropical regions and has started to invade other regions of which it was not previously found. Countries like China and the United States of America have experienced dengue outbreaks in recent years and, moreover, the first dengue cases in Europe have also been reported.(16) Other diseases that can also be mentioned are malaria and other arboviruses, diseases of the digestive system, bacterial, fungal and parasitological pathologies, allergies, respiratory, dermatological and cardiovascular problems.(16)

4.3. RISING SEA LEVELS

The increase in temperatures caused by global warming acts in the melting of the polar ice caps, altering the ecosystems of the region and culminating in the rise of sea levels worldwide, by the reduction of planetary albedo and greater solar absorption on the surface of the ice. The phenomenon also counts with a positive feedback cycle, whose water vapor resulting from the glacial melt accumulates in the atmosphere, contributing to the greenhouse effect and, additionally, culminating in changes in the water cycle and increased rainfall, surface runoff and soil erosion, flooding, among other changes in the environment.(13)

Based on this, the main impacts of this process on health are in the supply of water and basic sanitation, which do not carry technologies resilient to climate change. The increase in sea levels should cause saline intrusion in reservoirs, such as aquifers and surface waters, reducing the amount of drinking water available and affecting its

distribution to the population.(17,18) Furthermore, in the context of global warming, the elevation of temperatures , increased humidity and atmospheric pollution contribute to the pathophysiology of polinosis and other allergic diseases, especially respiratory ones.(19)

In relation to basic sanitation, the increase in rainfall caused by the humid climate can generate floods and overloads to sewage systems. The same is true of rising sea levels, whose sewage and waste from coastal cities will find it difficult to flow into the ocean, tending to return to runoff systems. These processes culminate in public health crises, increasing the incidence of diarrheal diseases, gastroenteritis, cholera and leptospirosis.(17,18)

4.4. EXTREME CLIMATIC VARIATIONS

The intense temperature variations caused by global warming also demonstrate a great impact on public health, both because of the contribution to the pathophysiology of some diseases, and because of the damage to public health caused by natural disasters. Morbidity and mortality due to cardiovascular diseases, for example, including the risk of acute myocardial infarction, is associated with sudden variations in the climate, which include variations in atmospheric pressure, extreme values of maximum and minimum temperatures and changes in rainfall patterns.(20)

These climatic changes predispose the appearance of natural disasters, which can be classified as climatological, which includes droughts, fires and intense cold waves; geological, such as landslides; hydrological, represented by floods, runoff and maritime invasion; and, finally, meteorological disasters, such as heavy rains, frosts, hail, tornadoes, cyclones and storms.(21) Due to its territorial extension and, consequently, great climatic diversity, Brazil has a heterogeneous profile of natural disasters, ranging from gradual floods in the North region, droughts in the Northeast region and meteorological disasters in the South and Southeast regions.(21)

In addition to the direct impact on human integrity, the consequences of climate catastrophes also indirectly affect public health. The impairment of basic infrastructure, such as the supply of energy and water, and the overload of health services, additionally to the great economic impact in containing damage, are major obstacles in the management of disasters.(21)

4.5. FINAL REMARKS

It is based on the items exposed in this work that the approach to climate change and its impacts on health is extremely important for health professionals, and its insertion in the curriculum of various specialties, such as medical education, is necessary and immediate. With these topics inserted in their training, professionals

become replicators of information, using the doctor-patient relationship to educate and make the community aware of the importance of sustainable practices for the development of humanity, in line with the environment.(24)

Thus, it is necessary to build a health system prepared and adapted for extreme events, with adequate location and infrastructure of health units, effective training in disaster medicine, as well as the establishment of multidisciplinary support networks for affected individuals.(21-23)

The study was limited by the lack of a detailed methodological evaluation of the selected articles, not guaranteeing their quality. However, the article was able to address the main theme present in the guiding question of the text, carrying out an analysis of climate changes caused by anthropological action in public health.

Table 1 - Selected references in SciELO, PubMed and CAPES journals portal databases.

Authors	Title	Year
World Health Organization.	Ambient air pollution: a global assessment of exposure and burden of disease.	2016
Observatório do Clima.	Estimativas de Emissões de Gases de Efeito Estufa no Brasil 1970-2018.	2019
Guarnieri M, Balmes JR.	Outdoor air pollution and asthma.	2014
Aleixo NCR; Neto JLS.	Subsistema Físico-Químico: análise da poluição do ar e hospitalizações por DPOC.	2016
Arbex MA, Santos UP, Martins LC, Saldiva PHN, Pereira LAA, Braga ALF.	Air pollution and the respiratory system	2012
Dapper SN, Spohr C, Zanini RR.	Poluição do ar como fator de risco para a saúde: uma	2016

	revisão sistemática no estado de São Paulo.	
Gladka A; Rymaszewska J, Zatonki.	Impact of air pollution on depression and suicide. International Journal of Occupational Medicine and Environmental Health.	2018
Pinto HS, Assad ED, Junior JZ.	O aquecimento global e a agricultura.	2004
Instituto Nacional do Semiárido.	Desertificação e mudanças climáticas no semiárido brasileiro.	2011
Centers for Disease Control and Prevention.	Climate Effects on Health	2020
Heaviside C, Macintyre H, Vardoulakis S.	The Urban Heat Island: Implications for Health in a Changing Environment. Current Environmental Health Reports.	2017
Sousa TCM, Amancio F, Hacon SS, Barcellos C.	Doenças sensíveis ao clima no Brasil e no mundo: revisão sistemática.	2018
Howard G, Charles K, Pond K, Brookshaw A, Hossain R, Bartram J.	Securing 2020 vision for 2030: climate change and ensuring resilience in water and sanitation services.	2010
Howard G, Bartram J, World Health Organization. .	Vision 2030: the resilience of water supply and sanitation in the face of climate change: technical report	2009

Filho NR.	Poluição, aquecimento global e alergia.	2017
Natal EF, Laranja REP, Almeida EKA.	Análise da influência das variáveis climáticas na mortalidade por doenças do aparelho circulatório no Distrito Federal, Brasil, 2003-2012.	2016
Freitas CM, Silva IVM, Xavier DR, Silva EL, Barellos C.	Desastres naturais e seus custos nos estabelecimentos de saúde no Brasil no período de 2000 a 2015.	2020
World Health Organization.	Operational framework for building climate resilient health systems.	2015
World Health Organization.	Emergency risk management for health: overview	2013

Source: Prepared by the authors and adapted from Rother ET (3)

CONCLUSION

The striking connection between the theme of environmental health and human health is remarkable. Climate change, brought about by the action of man in his environment, becomes an important health variable, especially for vulnerable parts of society. To make these data effective, it is necessary to encourage studies that more accurately elucidate the impact of specific health damage caused by climate change. In addition, preventive practices based on actions and policies that involve the issue of environment, health and sustainable development are urgent in the current context.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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SCIENCE IN DEBATE: DIALOGUE WITH THE GENERAL POPULATION PROMOTING THE FIGHT AGAINST MISINFORMATION IN HEALTH – AN EXPERIENCE REPORT

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KEYWORDS: *Scientific Communication and Diffusion; Civil Society; Access to Information; Evidence-Based Medicine*

INTRODUCTION

The troubled management of the crisis, caused by the Covid pandemic, made clear the lack of cohesion between political and scientific entities in terms of containment strategies for the virus.(1) In Brazil, especially, the expressive emergence of medical protocols without methodological evidence attached to the State's reluctant adherence to the continence measures proposed by the academic community are clear examples of this inability. Consequently, what the World Health Organization called "massive infodemic" was established in the country, a phenomenon characterized by the abundance of information, which is not always accurate, thus making it difficult for the civilian population to distinguish between guidelines from reliable sources and false information or lacking scientific credibility.(2)

In addition, we have experienced several contingencies in science, causing a reduction in its incentive and making it even more distant and unknown to the general society, which starts to see it with discredit.(3) In 2020, the funds allocated to the National Council for Scientific and Technological Development for the promotion of research was cut by 80%,(4) however, despite being reported, it had low repercussions. Thus, in the current context in which scientism is being rejected, bringing it closer to citizens in an accessible and enlightening approach is fundamental to the recognition and combating of health misinformation, being put into practice by the action "The importance of science for the country". Therefore, the purpose of the present report is to describe this experience and to show a viable method to solve the aforementioned issue.

EXPERIENCE REPORT

On July 3, 2020, the Vitória da Conquista campus IFMSA Brazil UESB action entitled "The Importance of Science for

the Country" took place, which consisted of two online activities. It started, firstly, with publications on the Instagram platform, presenting the speakers and then describing the cuts, briefly in the funding in science, technology and innovation, in line with the resulting damage to the health system.

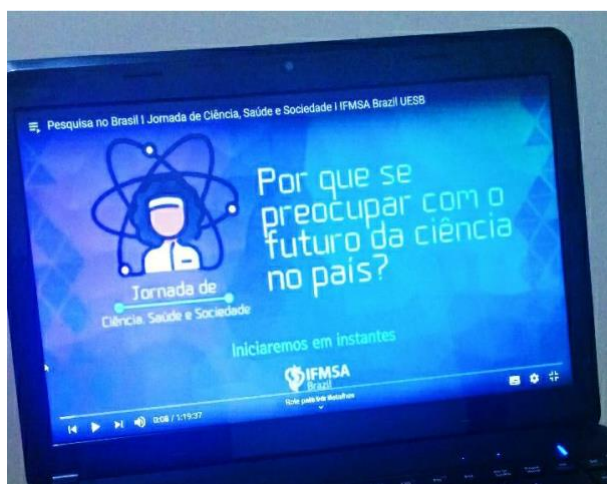
At 7 pm on that day, a Round Table was broadcast live, through the committee's YouTube channel, with the participation of two professionals in the field of scientific research to answer previously selected questions and with the mediation exercised by a local coordinator. In this second moment, the current difficulties faced by Brazilian scientific production, the possibilities of accessing it both in high school and undergraduate courses were addressed, and finally, for the necessary support and reliability given by the general population, especially in the current pandemic. The interaction with the target audience took place via synchronous chat to send questions about the subject.



In both stages, priority was given to effective and simple communication, the purpose of which was to exchange information and instigate participants, whether they be the guests or the viewers.

REFLECTION

Immersed in the emerging Global Village(5) - in which all systems and individuals tend to come together - scientism has become an actor shaped by the current socio-political context. In this context, the current pandemic scenario very much illustrated the aforementioned and inherent intersection between society, science and politics, and the three subjects should converge in favor of effective solutions, outlining to contain both the humanitarian issue in health and the reluctance to implement the measures as well evidenced due to the accentuated spread of misrepresentations and lack of critical sense in the general population.(6)



Eventually, the formation of a scientific culture - based on the literacy of those not included in the academic community - is not only typified as urgent, but also enables, simultaneously, the democratization of information and the expansion of the institutional image that science reflects, disseminating the knowledge and characteristics of scientific activity, together with the methods used for its production.(6) Furthermore, this literacy, since it implies the active participation of the individual, promotes a perspective of social equity by inserting normally minority groups in these debates.

Therefore, the reported activity demonstrated reaffirmed the effectiveness of the dialogue between the scientific and civil community, even though the latter is composed of a diverse age group, as long as the dialogue is attentive to the specificities and parlance of scientifically illiterate people, as evidenced by the literature.(1-3) The engagement of the target audience, through questions, was a method of bringing them closer to scientism. Furthermore, feedback through positive and grateful messages and comments on the committee's social

networks confirmed the importance of providing citizens with factual and transparent knowledge, aiming to make them more resistant to false information, especially in the health area, corrupting the poignant structure of the organization. misinformation.

However, once this is done, even if locally, as in the reported action, it requires the collaboration of the State and maximum government institutions, so that they comply with the provisions of the Constitution, in relation to encouraging research and development of science. (7) Accordingly, effective health promotion will have been ensured, with correct public measures benefiting jointly the entire social body it integrates.

CONCLUSION

In order to consolidate an environment in which the flow of well-evidenced content reigns, the scientific debate needs to extrapolate the academicism bubble in which it is circumscribed, and achieve popular engagement. Therefore, the action sought to understand how to mediate the dialogue between science and society in the pandemic context, in order to face the current misinformation in health. Despite the limiting aspects regarding the non-adherence of those who do not have the required access technologies, as well as a possible feeling of distance - considering social isolation -, the present action, through online interaction, proved to be relevant and feasible in finding solutions to solve the problem, in addition to undoubtedly having touched the viewers, the guests and the students involved. In addition, the elucidations raised by this experience show the need for similar actions to be developed by administrative entities within the academic and scientific community.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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EXPERIENCE REPORT: A CLOSE LOOK AT THE INTEGRAL HEALTH OF CAREGIVERS OF THE ELDERLY

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KEYWORDS: Family Health; Mental Health; Hospice Care.

INTRODUCTION

According to the Brazilian Institute of Geography and Statistics (IBGE), the mortality in the elderly decreased in Brazil between 1980/2018, and life expectancy in 2018 reached 76.3 years. Given this transition context, it is clear the importance of the performance and the indispensability of elderly caregivers in the domestic environment.(1)

The caregiver performs several activities in the care of the sick elderly, promoting their well-being. Still, several studies have shown females, kinship with the elderly, and age over 50 years as prevalent parts of the profile of caregivers.(2,3) The difficulties encountered by caregivers vary according to the patient's condition, but the caregiver's concern with the care of the patient to the detriment of theirs is something appellat. The elderly's degree of dependency is often associated with tasks for the caregiver, which require great responsibility and skill, affecting the health of the caregiver.(4,5)

Given this, there was an activity for the caregivers. The activity was to offer attention and care to those who dedicate time to care lovingly for those in need. This report aims to record the process of the action performed and to demonstrate the importance of an integral look at health. It expects to promote a discussion on the relevance of monitoring the health of the caregiver and the patient for health promotion and an increase in the quality of life of accompanying family members.

EXPERIENCE REPORT

In the second semester of medical course, in 2019, during Community Interaction, students experienced, with the health team of the Basic Health Unit, the practice of home visits. At that time, the students realized that the elderly who were being cared for were receiving the necessary

care. In contrast, the mental and physical health of the caregivers was being neglected and gradually forgotten.

On the second visit, the students and a guiding teacher returned to the home of three informal caregivers and one formal caregiver to interview in the form of conversation to understand the routine and their main needs. During the interaction, it was possible to notice the physical exhaustion and emotional fatigue of the caregivers, due to the uninterrupted care of the elderly. On that day, caregivers were also invited to participate in a video that would be shared with the class. However, not everyone wanted to participate because they did not feel comfortable interacting with the camera, but even so, there were real lessons about life and love in the permitted recordings.



Figure 1: Gift kit delivered to caregivers containing a

letter, a fridge magnet with messages and a rose. Photograph by the author.

It was noticed that the age of informal caregivers was much higher when compared to that of formal caregivers, as well as working hours and the feeling of exhaustion. In addition, respondents tended to develop depressive feelings and showed a low perspective on life.

From the observations, during a student team meeting, a gift kit was prepared to be delivered to each family. It was a kit of a written letter from the students to each caregiver, a red rose and motivational messages in the form of a refrigerator magnet. An excerpt from one of the letters is as follows: "we can only encourage those who put themselves in this condition of helping and loving those who need it so much and have done much for us when we were children ... That's the most beautiful form of gratitude! But also, do not forget yourself! Your health, physical, and mental deserve attention. Moreover, never blame yourself for what tomorrow holds; it will never be under the control of human hands".

On the day of the action, the caregivers' reaction to receiving the gift was contagious, and the students recorded the joy and emotion of the moment. The gathered recordings composed a video, which was seen by the class at the end of the semester.

REFLECTION

Knowing the caregiver's routine was a remarkable experience for providing a new perspective on the subject. Given this, the experience showed that caregiver's health goes through a process of deterioration because he or she is responsible for the care of the elderly in a continuous way. This fact can be proven by the author Kobayasi (6) when he mentions that simple daily activities such as taking a shower or going to the bathroom become more difficult with a debilitated or bedridden patient. Still, there is an overload of physical problems and constant concerns culminating in psychological damage to the caregiver.

The activity made possible for the students to investigate two observations reported in the literature by Santos (7), in which he affirms that the affective bonds in the zeal of a family member have a much vast emotional burden when compared to the function of formal caregiver, hired; and by Diniz (8), who states that regardless of whether care is provided by a family member or not, these caregivers lack support in the physical and psychological damage resulting from the care of the elderly.

These findings allowed the group to reflect on the social context of the caregivers and the need for attention to the caregivers' mental health. Through this action, there was

a perception of the transforming power of affection and empathy for caregivers, patients, and students.

CONCLUSION

Although not all caregivers were willing to participate in the video, the main objective - to contribute to the health and well-being of caregivers - was achieved. Such factors could be observed through the integration of students with caregivers so that the simple visit already proved efficient for improving mood. During the conversations, the caregivers showed interest in sharing experiences and emotions.

Besides, contact with caregivers provided expansion of the clinical view, the valorization of humanized medical practice, pointing out the need for health care designed for the whole family. Also, the importance of this activity was to promote a more humane and comprehensive medical training, once the direct contact with the family and the patient allowed the development of a closer and more empathic look. Thus, it is clear the relevance of works aimed at primary care and home care so that new initiatives can pay attention to the health of caregivers.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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DOMESTIC VIOLENCE AGAINST WOMEN DURING THE COVID-19 PANDEMIC AND PUBLIC HEALTH STRATEGIES: A NARRATIVE REVIEW

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KEYWORDS: Gender-Based Violence; SARS Virus; Epidemics; Social Isolation; Health Policy.

INTRODUCTION

In 1993, the General Assembly of the United Nations (UN) defined violence against women as “any act of gender-based violence that results or may result in physical, sexual or psychological harm or suffering to women, including threats of such acts, arbitrary coercion or deprivation of liberty”.(1) Such act, when occurs within the scope of domestic unit, family or in a relationship of affection - in which the aggressor lives or has already lived with the victim, regardless of cohabitation - is defined as domestic violence, according to article 5th of Law 11.340 / 2006 (Maria da Penha Law).(2)

Historically, the recognition of violence against women as a public health problem and a priority agenda by the

World Health Organization (WHO) occurred in 1996, at the World Health Assembly in Geneva.(3) Afterwards, in 1997, the first WHO Information Package on Violence against Women was launched, emphasizing that, despite the scarcity of solid scientific studies on the subject, it was possible to state that 16% to 52% of women, from different countries, were suffering physical violence from their partners.(4)

Concerning Brazil, the National Policy for Integral Attention to Women's Health, elaborated in 2004, was one of the first documents to deal with domestic violence against women in the context of the Unified Health System (SUS).(5,6) One year later, the Federal Senate released a scientific report about the problem in the country, in which 17 % of the women interviewed

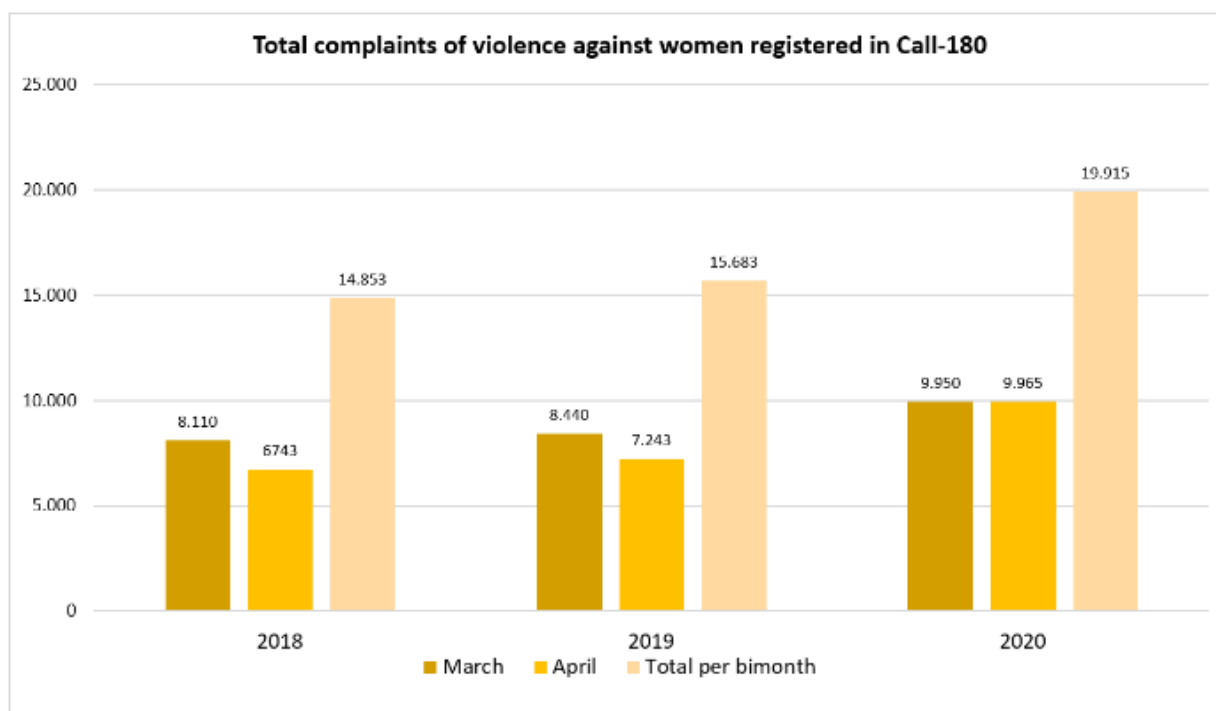


Figure 1 - Total complaints of violence against women Source: Brazilian Public Security Forum (FBSP).

declared that they had suffered violence, while the aggressor was the victim's husband or partner in 65% of the cases.(7) In a similar survey from 2019, 27% of the women interviewed reported having experienced domestic or family violence, with 66% of cases being physical violence.(8)

Therefore, the public health impacts of domestic violence against women are significant. This issue may be intensified in cases of conflict, humanitarian crisis, and socio economic instabilities.(9) This situation was observed during the Ebola outbreak in Sierra Leone in 2014, with a record increase of sexual and gender-based violence during the crisis.(10,11)

In this sense, the current Coronavirus Disease 2019 (COVID-19) pandemic may also have negative implications on the incidence of domestic violence's acts against women.(12) This can occur because the crisis generated by the pandemic imposed social and economic transformations, resulting in instabilities.(13) Among them, financial restrictions and movement limitations may incite aggressors to act and provide them more control.(14) Thus, the present study aims to analyze data on domestic violence against women during the COVID-19 pandemic in Brazil and other countries, beginning in March 2020, and possible public health strategies to prevent and combat it.

METHODS

The present study is a narrative bibliographic review. This is entitled by broad approaches, useful to describe and discuss the development of a given subject, from a theoretical or contextual point of view. During its preparation, the methodology for searching references is not strictly informed, as well as the criteria used in the evaluation and selection of articles. Therefore, it constitutes an investigation of literature published in

books, articles from printed and/or electronic journals, in the interpretation and personal critical analysis of the author.(15)

For the development of the proposed review, the PubMed, Scielo, and Biblioteca Virtual em Saúde (BVS) databases were used. The descriptors used were: "Domestic Violence AND Pandemics" "Violence Against Women AND Public Health", "Social Isolation" and "Health Policy". Between 1994 to 2020, 34 publications were found. The search was restricted to Portuguese and English, with publications in other languages being excluded. Thus, among the texts found, 26 were used for the paper's purpose. In addition to these, data from other sources were considered necessary for a better understanding of the subject, such as: the Brazilian Public Security Forum (FBSP), Call 180 Central, and the Military Police (PM).

RESULTS

Worldwide, there was an increase in violence against women during the pandemic period. This growth could be observed in countries such as China, the United Kingdom, the United States, France, Spain, Italy, and Brazil.(16,17) However, there was a decrease in complaints in several locations, especially at the beginning of the social distancing measures.(18)

In China, the police department reported a number up to 3 times higher of domestic violence cases in February 2020 compared to 2019, and it is estimated that 90 % of this increase is linked to the pandemic.(17) In the United Kingdom, a project to track violence against women has shown that deaths from domestic abuse more than doubled between March 23 and April 12, 2020, compared to the average of the last 10 years.(9,14)

Federation Unit	Femicides									Accumulated (March-May)		
	Mar/19	Mar/20	Variation (%)	Apr/19	Apr/20	Variation (%)	May/19	May/20	Variation (%)	2019	2020	Variation (%)
	Acre	1	2	100	0	2	-	0	1	-	1	5	400
Amapá	0	0	-	0	0	-	1	0	-100	1	0	-100
Ceará	2	3	50	1	1	0	4	2	-50	7	6	-14,3
Espírito Santo	2	3	50	4	0	-100	1	1	0	7	4	-42,9
Maranhão	1	8	700	5	8	60	5	4	-20	11	20	81,8
Mato Grosso	2	7	250	4	5	25	1	6	500	7	18	157,1
Minas Gerais	8	8	0	14	9	-35,7	14	10	-28,6	36	27	-25
Pará	4	4	0	1	6	500	3	4	33,3	8	14	75
Rio de Janeiro	9	5	-44,4	9	3	-66,7	7	6	-14,3	25	14	-44
Rio Grande do Norte	1	4	300	3	0	-100	2	1	-50	6	5	-16,7
Rio Grande do Sul	11	11	0	6	10	66,7	11	6	-45,5	28	27	-3,6
São Paulo	13	20	53,8	16	21	31,3	19	8	-57,9	48	49	2,1
Total	54	75	38,9	63	65	3,2	68	49	-27,9	185	189	2,2

Table 1 – Records of domestic violence (intentional bodily injury) from March to May 2019 and 2020. Source: Brazilian Public Security Forum (FBSP).

Federation Unit	Femicides										Accumulated (March-May)		
	Mar/19	Mar/20	Variation (%)	Apr/19	Apr/20	Variation (%)	May/19	May/20	Variation (%)	2019	2020	Variation (%)	
	Acre	1	2	100	0	2	-	0	1	-	1	5	400
Amapá	0	0	-	0	0	-	1	0	-100	1	0	-100	
Ceará	2	3	50	1	1	0	4	2	-50	7	6	-14,3	
Espírito Santo	2	3	50	4	0	-100	1	1	0	7	4	-42,9	
Maranhão	1	8	700	5	8	60	5	4	-20	11	20	81,8	
Mato Grosso	2	7	250	4	5	25	1	6	500	7	18	157,1	
Minas Gerais	8	8	0	14	9	-35,7	14	10	-28,6	36	27	-25	
Pará	4	4	0	1	6	500	3	4	33,3	8	14	75	
Rio de Janeiro	9	5	-44,4	9	3	-66,7	7	6	-14,3	25	14	-44	
Rio Grande do Norte	1	4	300	3	0	-100	2	1	-50	6	5	-16,7	
Rio Grande do Sul	11	11	0	6	10	66,7	11	6	-45,5	28	27	-3,6	
São Paulo	13	20	53,8	16	21	31,3	19	8	-57,9	48	49	2,1	
Total	54	75	38,9	63	65	3,2	68	49	-27,9	185	189	2,2	

Table 2 – Femicide records in the period of March-May 2019 and 2020. Source: Brazilian Public Security Forum

Regarding Brazil, according to data from the Call 180 Central, of the Ministry of Women, Family and Human Rights, there was an increase of 27 % in the total number of reports of violence against women, when comparing March and April 2019 with the same period in 2020 (Figure1).(19)

According to the São Paulo state police, the records of domestic violence calls, by Dial-190, grew 44% between March 2019 and March 2020. As for the data from the PM of Rio de Janeiro, in January 2020 there was a reduction in the number of calls. Conversely, in the following months, this number increased in 5.1%.(19)

In a study produced by the FBSP, all the Federation Units investigated showed a reduction in the record of intentional bodily injury from domestic violence between March and May 2020, compared to the same period last year. The total accumulated decrease was 27.2%, and the largest reductions were observed in the states of Maranhão (84.6%), Rio de Janeiro (40.2%), and Ceará (26%) (Table 1).(20)

Comparatively, in the same period there was a total increase of 2.2% in cases of femicide, with the state of Acre having the greatest variation, with an increase of

400% in the accumulated records. In Mato Grosso, the increase was 157.1%. In contrast, Amapá, Rio de Janeiro, and Espírito Santo showed reductions in femicide records, which were 100%, 44%, and 42.9%, respectively (Table 2).

All the monitored states showed reductions in the number of emergency protective measures given in the period between March and May 2020, compared to the same months in 2019. In São Paulo, the decline was 11.6%. In Pará, 12.5%. In Rio de Janeiro, the sum of protective measures decreased by 30.1%, while Acre presented the largest reduction in the group by 30.7%(Table 3).(20)

DISCUSSION

Based on the results found, it is observed that, in Brazil, there was an increase in reports of violence against women by Call 180 Central.(19) However, countries such as Italy, France, and Spain reported a decrease in complaints at the beginning of the isolation period.(18) There was also a drop in the distribution and granting of emergency protective measures, which are essential to guarantee the victim's physical, moral, psychological, and sexual protection.(20) Similarly, the records of intentional

FEDERATION UNIT	Type	Emergency protective measures									Accumulated (March May)		
		Mar/2019	Mar/20	Variation (%)	Apr/2019	Apr/20	Variation (%)	May/19	May/20	Variation (%)	2019	2020	Variation (%)
		Acre	Distributed	211	155	-26,5	231	138	-40,3	196	141	-28,1	638	434	-32
	Granted	161	115	-28,6	134	84	-37,3	122	90	-26,2	417	289	-30,7
Pará	Distributed	1117	996	-10,8	1199	676	-43,6	-	...	...	...	...	...
	Granted	628	684	8,9	661	499	-24,5	676	536	-20,7	1965	1719	-12,5
São Paulo	Distributed	5439	5553	2,1	5734	3595	-37,3	-	...	...	...	...	...
	Granted	3221	4221	31	3979	2712	-31,8	10339	8569	-17,1	17539	15502	-11,6
Rio de Janeiro	Distributed	...	...	...	...	...	...	3381	1866	-44,8	...	...	...
	Granted	2924	2062	-29,5	2583	1865	-27,8	2199	1458	-33,7	7706	5385	-30,1

Table 3 – Emergency protective measures distributed and granted between March and May of 2019 and 2020.

Source: Brazilian Public Security Forum (FBSP).

bodily injury from domestic violence have been reduced, even though femicide has remained with increasing values.(20)

Such a discrepancy in the obtained data indicates that the numbers do not reflect the reality and that women are having more obstacles to access the tools for registering complaints. Possibly, due to the greater difficulty for the victim to leave the house during isolation and the interruption or reduction of activities in the establishments that could provide her support. There is also the fear of denouncement, intensified by the higher proximity to the aggressor and the reduced contact with a support network, such as friends and family.(16,19,20)

In 2019, 88.8% of the femicides registered in the country were executed by partners or ex-partners. It is observed, therefore, that women are more exposed to danger during isolation, as they are in constant contact with the potential aggressor.(17) It is worth mentioning that it is not possible to affirm the direct relationship between an increase in femicides and changes resulting from the pandemic. However, this is a hypothesis to be considered due to the greater vulnerability imposed on women. Thus, the State must establish means to monitor and collect data on these changes, since in the police records of several states in Brazil, there is a lack of the database of that information.(16,19,20)

To mitigate this problem, the UN secretary-general António Guterres has made several recommendations to the countries. Among them, the following stand out: more investments in online customer service, development of emergency alert systems in pharmacies and supermarkets, and the institution of temporary shelters for victims of gender violence.(21)

In Italy, the government claimed hotel rooms to serve as temporary shelters for victims. Besides that, the Italian police have modified apps for reporting bullying and drug trafficking to be used by women to send messages and photos, without the aggressor's awareness.(22)

Spain inaugurated a specific WhatsApp service that allows contact with authorities through emergency alerts disseminated through the code: "Mask 19".(22) In the United States, it was also allowed to request protection against aggressors remotely, by phone or email.(23)

In China, on the other hand, although there has been an increase in complaints of up to 260% in some provinces, no measures were created to face the problem.(24) Conversely, in Switzerland, the Geneva Department for the Promotion of Gender Equality and the Prevention of Domestic Violence asked neighbors to report if they hear or witness violent fights.(19) It is worth noting that the aforementioned international strategies are likely to be

implemented in Brazil, contributing to the reduction of the damage caused by domestic violence and intensified by the pandemic.

The Law 14.022/2020 was sanctioned in Brazil, which provides measures to combat domestic violence in the pandemic context.(25) It establishes, in an essential character, the maintenance of agencies and face-to-face services to women, as well as the creation of tools for online assistance.(25) In this regard, the following stand out: Call 180 Central, Specialized Police Offices for Women, Specialized Defenders and Prosecutors, Brazilian Woman House, Specialized Centers for Women Attendance, Shelters, and Human Rights BR App25. Furthermore, there are initiatives organized by civil society, such as the "Justiceiras" and "Mapa do Acolhimento" projects.(25)

In this perspective, the problem of domestic violence must be prioritized by health services, which are sometimes the first or the only support for these women. Health professionals are in a strategic position to detect possible victims and, therefore, need to be alert. Injuries incompatible with clinical history, nonspecific and repetitive complaints, lack of autonomy in sexual and reproductive health are some of the traces that can be associated with this context.(26)

Furthermore, psychological consequences can be observed, such as depression, anxiety, post-traumatic stress disorder, hypervigilance, sleep disorders, alcohol and drug abuse, difficulty in establishing trust in interpersonal relationships, and suicide attempt.(26) Given this demand, the health team needs to be trained to deal with all care stages for victims of domestic violence, from detection to referral, to offer respectful and qualified care, without judgments.(26)

Thus, as established by the Brazilian Law 10.778/2003, the cases in which there is evidence or confirmation of violence against women treated in public or private services are subject to compulsory notification at the national level.(27) The effective fulfillment of this regulation by health professionals contributes to the epidemiological dimensioning of the problem, to promote public policies, which become even more necessary given the difficulties imposed by the pandemic.(27)

As limitations of this study, the following stand out: difficulty in finding current articles on the theme, reduced number of relevant works with a national focus, and scarcity of compiled statistical data, therefore, several research sources were required.

CONCLUSION

The implications generated by the COVID-19 pandemic, on a global scale, potentiate the phenomenon of domestic violence and threaten the guarantee of women's rights. For this reason, efforts in the political, legal, social, and cultural scopes become crucial and urgent. Therefore, support measures for the victims must be provided, such as maintaining 24-hour services for complaints, greater efficiency in the judgment of crimes, in the granting of protective measures, and the wide disclosure of assistance tools. Finally, health professionals have a strategic position in this confrontation, so it is essential to train them to provide qualified care to the victims.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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VIRTUAL SPORTS CHALLENGE: AN EXPERIENCE REPORT OF AN INNOVATION FOR HEALTH PROMOTION

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KEYWORDS: Health Promotion; Pandemics; Exercise; Education, Medical.

INTRODUCTION

According to the indexed literature on medical education, medical students are subjected to vulnerabilities and weaknesses, mainly due to the extensive course load, plus the demands imposed on productivity, which affects their own health.(1) In face of anxiety and stress constantly present in their daily lives, these students become the most susceptible to illness due to both physical and mental disorders.(2) With the pandemic of Coronavirus Disease 2019 (COVID-19), the interruption of academic activities, as a result of social distance, accentuated these vulnerabilities(3) and, thus, demanded the implementation of innovative measures to alleviate this scenario.

In this context, the Academic Athletic Association (AAA) of the medical course at a public university, of which we are undergraduates, developed a virtual sports challenge for its athletes, as an alternative means to stay active. Therefore, this report aims to present and analyze our experience as participants in the challenge promoted by AAA, since it consisted of a significant and innovative experience in the field of health promotion, especially in the pandemic context.

EXPERIENCE REPORT

In view of the COVID-19 pandemic, sports training promoted by AAA, which prepares athletes for university sports competitions and promotes health, had to be interrupted. In face of this, the institution remotely developed a sports challenge for athletes like us, using the WhatsApp® chat app, with the aim of, together, seek a more active and healthy lifestyle.

The challenge consisted of a competition between 14 AAA's sports teams, which aimed to obtain the highest average number of training sessions. When performing

these exercises, we should send photos or videos proving their accomplishment, with a maximum of one training per day and five training sessions per week.

In addition, it should be noted that the modality and intensity of the exercise to be performed were at the athlete's discretion. Thus, given the reduced structure of the apartment in which we live, we resorted to the use of training apps and lives to facilitate the realization at home, in a creative and safe way. In parallel to this, we practice strengthening and resistance exercises using equipment we have (dumbbells and Swiss ball). We also took advantage of the existence of stairs that are rarely used by residents of the condominium for aerobic exercise.

After 11 weeks of challenge, the three teams with the highest averages (women's volleyball, swimming and women's indoor soccer) were awarded with 200, 100 and 50 reais, respectively. It is evident, therefore, that the fact that we have done 5 training sessions every week, although it was tiring, was important not only for our physical and mental health, but also for the victory of our teams, which reached the first and third place on the podium.

REFLECTION

In the face of the pandemic context of uncertainty and the suspension of the academic schedule of our college, we were subjected to a scenario unusual to our reality: social distancing, the absence of daily physical activities and susceptibility to physical and mental illness. Therefore, the virtual sports challenge represented an important motivation amid times of discouragement, anguish, anxiety, frustration and a feeling of unproductiveness. Through the daily practice of physical exercises, it contributed to the reestablishment of part of our routine, even favoring the resumption of productivity in studies.

We highlight the relevance of the challenge for maintaining good physical conditioning, with the consequent promotion of our health. This is because the regular practice of physical activities is essential to prevent diseases of both physical and psychological nature, in addition to strengthening the immune system and maintaining the individual's functional capacity⁴. Furthermore, it results in benefits for brain function as it contributes to the improvement of memory and the learning process.⁽⁵⁾

Moreover, we note the importance of encouraging this practice by medical students, especially in this pandemic context of worsening psychological disorders⁽³⁾, considering that aerobic exercises have antidepressant and anxiolytic effects that protect the body from the harmful consequences of stress.⁽⁶⁾ Thus, physical activities can act as an important therapeutic mechanism for mental health care,⁽⁷⁾ contributing to the reduction of anxiety and causing a feeling of euphoria and tranquility.⁽⁸⁾

Another important aspect for our psychosocial health was the daily interaction with the teams. Technological advances have allowed an "approximation" in times of social distance, which corroborated to resume part of the social interactivity to which we were accustomed, alleviating the longing for the athletes of our teams, with whom we live and exchange experiences on a daily basis.

This social interaction was accompanied by a strong spirit of collectivity among the athletes on the team, fundamental to our constant training. The biggest motivation came from the desire to help the team to win, making us unite towards this goal. Messages of encouragement and congratulations were frequent, aiming to stimulate each other daily. We also talked about our routines, insecurities, expectations and sadness in the face of this pandemic scenario, which evidenced the emergence of a social support network, characterized by the expression of significant affective bonds of protection and support.⁽⁹⁾

Finally, we emphasize the relevance of the challenge in our personal and professional growth, as it contributed to the development of notions of responsibility, leadership, empathy, teamwork and communication skills, in line with the National Curricular Guidelines of the undergraduate course in Medicine.⁽¹⁰⁾ In addition, we highlight the social accountability of our AAA to promote physical and mental well-being of students, even in the face of the difficulties arising from the pandemic.

CONCLUSION

In view of the above, we highlight that the virtual sports challenge represented an important alternative for

promoting our health, especially in this pandemic context of exacerbation of vulnerabilities. Even in the face of certain limitations, such as the difficulty of performing physical exercises at home (due to the restricted space, the lack of equipment, among others), the absence of face-to-face contact between athletes and the dependence on technological resources (such as cell phones and the internet), we realize that the challenge has reached its goal of promoting physical and mental well-being.

Thus, we hope that other institutions will be motivated to take care of their students, in a creative and innovative way, using technology as an ally in this process, in view of the adversities of the COVID-19 pandemic. This experience showed us that, in difficult times like the present, the concern for the health of individuals must be redoubled, and the practice of physical activities at home is an excellent strategy for this. It is even expected that this will be a future trend, since this pandemic is influencing the lifestyle of the world population, in parallel with the progressive advance of technology.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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Daniella Guedes Neto Dair
Capacity Building Director

Dear readers,

Every IFMSA Brazil's local coordinator certainly heard something about Capacity Building, but are you able to explain further? It is the axis that lifts and structures the Federation, being called the dorsal column. But, why does he work with everything? This axis is related to any and all types of skill creation and development, from simple training to a complete workshop. Being a great trainer of health leaders and future professionals trained for the most diverse situations.

Training and workshops are the main activities of the axis, and the contents worked on are of the most varied possible, from basic skills, as well as with public health, human rights and peace, sexual health and reproductive rights including HIV & AIDS, medical education, research and publication, and even exchanges.

In this part of the magazine we will take a glimpse at Capacity Building's "Wonderful World" through some training and experiences of the local coordinators present at the session. Through these articles you will be able to perceive the impact that the axis of the dorsal column has on each participant.

I wish you all a great appreciation of the works and that motivate you to spread this magical world of Capacity Building to the entire Federation.

Kisses

CAPACITY BUILDING

BEYOND THE CLASSROOMS: AN EXPERIENCE REPORT ON WORKSHOPS AND PEER EDUCATION

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KEYWORDS: Problem-Based Learning; Curriculum; Education, Medical; Models, Educational.

INTRODUCTION

Health students, in many Higher Education Institutions (HEIs), are taught through passive learning methodologies, with expository classes in which the teacher is the center and the students are spectators, obeying a hierarchical teaching-learning logic(1) and that does not always meet the needs of students, in addition to attenuating their creativity.(2)

The model based on active methodologies encourages students to participate in their education, teaching them to learn how to learn and preparing them for reality as professionals, while the teacher becomes a facilitator of the process, helping to identify gaps and students' potential. This model contributes to critical-reflective training, giving students tools that allow them to exercise equitable and comprehensive care, as recommended by the Brazilian Federal Constitution.(3) Thus, it is necessary that methodologies that put the student at the center of their education be stimulated, agreeing with National Curricular Guidelines (NCG) of Medicine.(4)

In addition to the development of health skills, the student is also required about several skills such as interpersonal communication and conflict resolution, contents that are not present, in most cases, in the curriculum of Medicine, which demonstrates a need for HEIs reformulate themselves to graduate professionals with skills that go beyond medical techniques.

In view of this problem, the International Federation of Medical Students Associations of Brazil (IFMSA Brazil), through the Capacity Building axis, aims to assist in the development of skills needed by every health professional. Through workshops, such as Training New Trainers (TNT), students from all over the country are encouraged to develop it through Peer Education, a form of Active Methodology that puts them in problem-

situations mediated by other trained students, capable of relate the theoretical-practical content through playful activities and debates.(5)

Considering the contribution of Active Methodologies via Peer Education, this study aims to describe the experience of two Local Officers of IFMSA Brazil as TNT trainers and the benefits of using such methodology in a practical activity.



Figure 1- Official photo of TNT Campo Grande

EXPERIENCE REPORT

TNT Campo Grande, held between June 20th- 22nd 2019, was attended by 3 trainers and 14 medical students from different colleges. The agenda was composed of the following themes: financial and fundraising skills, presentation and facilitation techniques, feedback, diplomacy, conflict management, leadership, motivation, team building, time management, communication skills and training skills. The themes were individually worked, totaling 11 training sessions in the workshop.

The trainings lasted two hours each, given by one or two trainers, according to their previous experience and approach, with the participation of all participants. Each training was composed by theoretical exposition of the content interspersed by dynamics and discussions. The dynamics were used as a trigger for the subject - when

inserted before or during the theoretical part - or as a tool for fixing the content already exposed - when inserted at the end of the activity - being elaborated according to the desired objective and the relationship with the content theoretical.

In addition to the training dynamics, there were moments dedicated to them, such as at the beginning of each activity day, after lunch and between some training sessions, offering space for recalling the contents, awakening reflections on the proposed situations and identifying possible learning gaps, promoting integration and teamwork.

At the end of the TNT, a form was sent via Google Form® with questions about how the participants evaluated the proposed methodology, the quality of the themes, the didactics of the trainers and the quality of the dynamics used, in a Likert(6) Scale of 5 gradation points, ranging from "Very Bad "to" Excellent ". As it is not a project submitted to the Research Ethics Committee, the form's responses will not be reproduced in this study

REFLECTION

The trainers' role during the workshop reflected the essence of peer education: after having previously participated in a TNT, they have the mission of transmitting the knowledge acquired to other students, being responsible for planning the training and creating a conducive environment for reflection and discussions.

In the Active Methodology proposal, the student is invited to dialogue, aiming to expand his knowledge from himself, guided by a brief theoretical-expository moment by the facilitator.(5) In the experience reported, it was up to the trainer to introduce central elements, presenting a broad view of the theme and, finally, contributing with conclusive and exemplary observations.

Peer Education is based on behavioral theories that indicate that individuals incorporate information more easily when provided by people with the same characteristics as themselves. By eliminating the hierarchy inherent in the traditional teacher-student system, a favorable environment for more effective learning is created, using a double empowerment system that allows simultaneously promoting development of the other (target audience) and of itself (facilitators) through pedagogical actions.(7)

Thus, each training given at TNT was designed to offer a theoretical basis on a given subject followed by dynamics and discussions that caused the participant to assume an active posture in the construction of knowledge, critical sense, teamwork and communication, beyond the specific skills of each theme.

Many participants reported, both during the event and during the evaluation, that, even with an extensive agenda, the subjects and their approach were of great relevance and could be used in graduation, but that the HEIs lacked in proposing pedagogical activities in addition to the development of strict medical skills.

Since "learning from experience is the process by which human development occurs",(8) dynamics play an important role within active methodologies. When well planned, integrated with the exposed theory, it allows the participants to be induced to critically reflect on the proposed situation and start their own investigation and learning process, having a great motivational component when placing the student as the protagonist of that moment.(9)

During TNT, dynamics were also used as an indirect measure of learning, showing the evolution of the participants when incorporating the subjects worked and their progress in dealing with increasingly complex problems brought by the facilitators.

From the experience reported, we saw a consistency between the theory of active methodologies and that addressed in TNT, because, mixing theoretical introductions with practical moments, students were placed directly in contact with the problems presented and were able to complete the tasks proposed by dynamics based on the debates promoted and concepts worked on.

CONCLUSION

From the presented report, the potential of TNT is evidenced as a valuable tool of active methodology in the fulfillment of the proposed objectives, especially in the development of useful skills to students promoting articulation between practical and theory. It is necessary that results like this be disseminated among students and HEIs aiming to articulate, together with the Course Coordinators, improvements in the Pedagogical Projects, placing the student as an active member in the development of his knowledge.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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TRAINING ABOUT COMMUNICATION IN HUMAN RIGHTS: AN EXPERIENCE REPORT

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KEYWORDS: *Human Rights; Communication; Empathy; Social Vulnerability; Medical, Education.*

INTRODUCTION

The Universal Declaration of Human Rights (UDHR) was created 72 years ago as a document responsible for creating minimal conditions that assure a decent living for all human beings. Considering that the World Health Organization's (WHO) definition of health integrates physical, mental, and socially individual factors (1), it becomes necessary to take into account the existence of external conditions that could also affect the health-disease process (2).

Therefore, approaching health based on the perspective of the Human Rights' (HR) lenses favours a more critical approach, by illustrating the importance these rights have in the development of a broader definition of health, which includes non-biological factors (2). In that way, health and HR are deeply connected and the violation of these rights leads to an impairment of access and quality of health services (3). Thereafter, the violation of HR creates a scenario that is aggravated by the development of movements against HR execution, as well as the existence of a wrong perception of their meaning (4). As a result, healthcare professionals should understand the importance of defending HR in their field of work, while using the Non-Violent Communication (NVC) to approach this cause in an effective way (5).

The present report aims to expose the training "Understanding and Defending the Human Rights" as a potential way to approach HR as a theme with medical students. The training session hoped to consolidate basic knowledge related to HR and their importance in health as well as be able to offer skills to practice defending HR effectively in a scenario permeated by intolerance and ignorance. (6)

EXPERIENCE REPORT

The foundation training happened on October 24th, 2019 in the School of Medical and Health Sciences of the Pontifical Catholic University of São Paulo and had 10 participants. The activity began with the introduction of the trainers, Giovanna Leite de Souza and Isabella Vitória Figureiredo, local coordinators of the IFMSA Brazil PUC-SP local committee.

At first, the trainers presented statistics about the populations' lack of knowledge on the theme, the concept and history related to the UDHR, and a video about the HR itself. Next, the trainers presented a synthesis of each one of the HR present in the declaration being considered together with a link directing to the complete UDHR. Subsequently, the participants were divided into smaller groups, where they received headlines of recent news and were invited to discuss about them; then, the participants were invited to indicate which HR was being violated in the different scenarios presented by the news. After this activity, data on contrary opinions against the HR were presented in order to demonstrate the importance of defending them. Hereupon, the participants saw concepts about NVC as a tool to uphold those rights.

Moreover, examples of every topic previously discussed were brought to the discussion in order to illustrate the shared information and demonstrate their daily applicability. Data on the benefits of using this technique as a communication tool have also been shown. Finally, the participants were divided for a second dynamic, which consisted of creating and performing a dialogue where NVC was used. After the presentation, some references used in the activity's formulation were indicated. For the evaluation of the activity, the participants were invited to anonymously respond to a small questionnaire about the training's quality.

However, some negative points related to the development of the training can also be mentioned: using only opened-ended questions in the impact assessment as

well as distributing the questionnaire by the end of the session may have impaired the quantification of the participants' learning levels.

REFLECTION

The theme of the training was considered relevant and pertinent by the attending students, since it exposed an alarming scenario about the perception of HR in the collective thinking and how it affects medical practice. (7) Additionally, a few communication techniques, which may facilitate defending HR, as well as improve students' interpersonal relationships, were presented. Those techniques are applicable both in the context of health and other fields; however, discussions about HR are not included in medical students' curriculum. (8).

The theme approached becomes more pertinent inside the universities' (PUC-SP) reality considering that the Institutional Plan of Development, which is the main reference to develop the medical school pedagogical curriculum, which follows Paulo Freire's principles that promote an education seen as an "active process, which is open to dialogue and orientated to the social and political responsibility, aiming to raise awareness and free individuals, with the objective to turn them into a transformation agent in society" (9).

Therefore, both the participants and trainers considered the training as an opportunity to reflect together about the topic. The participants showed interest and participated actively in the activities, which contributed to the positive feedback about the mentioned activity.

Finally, to take into consideration the trainers' experience, elaborating the activity has provided significant personal development, especially related to the knowledge on the addressed subject, organization skills, creativity, and public speaking.

CONCLUSION

The theme addressed in the training highlights the importance of valuing a medical education that raises awareness of students about their social responsibilities in being a physician in today's society. Lastly, it is possible to conclude that this training enabled an approach of health with an emphasis on HR, which also brought the opportunity for the participants to develop communication skills that allow changes in health practices and make them socially conscious, open to dialogue, and that value transformation capability of each one of our voices.

Although the objectives of the training were reached, the number of participants was limited, and the impact evaluation did not allow to quantify the amount of knowledge transmitted during the session. Thus, in a

future recreation of this activity the trainers suggest to evaluate the session with a pre and post questionnaire with objective and subjective evaluation techniques as well as promoting the event more intensely and with greater advance to reach a bigger number of participants.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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HEALTH LITERACY TRAINING WEEKEND: AN ONLINE PEER EDUCATION EXPERIENCE:

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KEYWORDS: Health Communication; Health Education; Humanization of Assistance.

INTRODUCTION

Health Literacy comprises the ability that individuals have to apply reading and writing skills in obtaining, understanding, and processing information about the health process (1). Individuals with satisfactory health literacy have greater autonomy, cost the health system less, have better adherence to treatment, and can recognize fake news (2-3). However, the concept is still unexplored on formal education, and it is up to institutions that promote health education, like IFMSA Brazil, to fill this gap with proposals such as Training Weekend based on peer education and active teaching methodologies. Thus, in a society that is continuously bombarded with information, often false, the broadcast of this discussion becomes essential. This report aims to present the experience of the "Health Literacy Training Weekend", in the view of the trainer and a participant, to show the value of the training promoted by IFMSA Brazil for the formation of humanized doctors, and to highlight the Health Literacy to health professionals.

EXPERIENCE REPORT

The Training Weekend was a national, free, and virtual event, disseminated through the federations' groups, general list, and social media, summoning, using a public notice, the interested local coordinators to fill an online form to participate in the selective process. Then, to guarantee representativeness, people from all the federations' regions were chosen, using as criteria, besides the state, the following plan to share the knowledge provided by Training Weekend.

The participants learned about Health Literacy and topics that go through this discussion, in the virtual platforms Google Meet and Go To Meeting. The opening was with a lecture by a doctor specialized in literacy, Rogério Malveira, introducing the subject with examples and personal experiences, calling attention to the value of

respecting the patient, the horizontal doctor-patient relationship, and describing low literacy as a "silent epidemic".

After that, the two trainers conducted the debate and addressed topics such as non-violent communication, humanization care, strategies for adhering to treatment, and Popular Education in Health. The discussion groups were formed and using active teaching methodologies and dynamics to jointly build knowledge using instant messaging and interactive platforms, such as Kahoot! and Slido. As an evaluation form, in addition to the observational analyses, comments and responses from post-event forms were used, with the purpose to assess from participants' sensibilization to the success indicators, that is, if the topic and subtopics of each content were achieved.

REFLECTION

During the construction of the project, the trainer observed that it was essential to overcome challenges regarding synchronous virtual teaching and active methodologies concerning the usability of the platform and the fluidity of learning. The examples served as a confrontation between experiences, and the new concepts showed, to build adequate knowledge about health literacy. From an organizational perspective, providing a continuous learning moment, capturing the participants' attention, bringing unknown concepts closer to reality, were some of the most significant challenges. At the same time, another obstacle was to build knowledge about health literacy, with the small Brazilian literature and the lack of approach in the curriculum. In this respect, intense research was made in international writing, drawing parallels with Políticas Nacionais do Sistema Único de Saúde and with experiences in clinical practice as an academic.

For the participant, the training showed the value of IFMSA Brazil in the formation of doctors who see beyond protocols. This was due to the reflection on the teaching and practice of vertical and technical clinics in medical faculties, in addition to the neglect of the approach in complementary subjects, such as the study of Health Literacy. This way, the commitment to effective communication and holistic care was rethought, respecting the individuals in its complexity and experiences. The significance of functional health literacy nowadays has arisen and become a challenge for medical organizations and the government to fight this information. With this in mind, we are experiencing an "infodemic", an epidemic of global misinformation (4-5), corroborating what was addressed during the training and being the subject of group discussion.

After the discussions, it was necessary to think about broadcasting this discussion at the local level, spreading the ideas of students and health professionals about Literacy, to improve the service as a whole, taking lessons from IFMSA Brazil beyond the committee and local coordinator. Moreover, there was a reflection on accessibility in the local committee, making it necessary to think about limiting conditions in the development of projects, so that activities are accessible to the target public.

Besides, this training was a way to interact and form bonds, in a moment of social distancing, with people from different realities and medical teaching contexts. That made it possible to dialogue and share diverse experiences for the construction of learning and evidenced the neglect of this essential issue, which is Health Literacy, for the establishment of humanized care in multiple realities.

CONCLUSION

In the views of the two agents participating in the event, there was an agreement as to the academic and professional importance provided by the IFMSA Brazil initiative in the formation of humanized doctors. Besides, the virtual environment was an ally in the construction of democratic training that was able to reach different regions. There is a need for the propagation of this discussion in medical schools, with the objective of training generalists who establish efficient and horizontal communication with the patients; even this can happen concurrently with the pandemic through the internet.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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STORYTELLING AS LEARNING TOOL: AN EXPERIENCE REPORT

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KEYWORDS: Capacity Building; History; Methodology; Narration; Teaching.

INTRODUCTION

O Capacity Building tem como propósito desenvolver habilidades necessárias para o cotidiano dos estudantes que, apesar de serem constantemente exigidas, não fazem parte da maioria das grades curriculares atuais,⁽¹⁾ como habilidades de liderança, técnicas de apresentação, resolução de conflitos, entre outros. Para isso, são utilizadas metodologias de educação não formal, proporcionando ao estudante experiências indutivas que levam ao aprendizado a partir de situações práticas relacionadas ao conhecimento teórico.⁽²⁾

Desde o seu surgimento na International Federation of Medical Students' Associations of Brazil (IFMSA Brazil), o Capacity Building busca atingir os objetivos supracitados ao disponibilizar materiais teóricos, oferecer capacitações e, principalmente, treinamentos. Os treinamentos são atividades que possuem sua essência na educação em pares, na qual estudantes previamente capacitados utilizam-se de técnicas de educação não formal, como dinâmicas e discussões, para capacitar outros estudantes em determinado assunto. Todavia, ao trabalhar com diferentes públicos em diversos cenários, diferentes ferramentas de aprendizado são necessárias para suprir as demandas apresentadas, visto que os treinamentos possuem limitações, como a pequena quantidade de participantes e necessidade de espaço físico amplo para ser realizado.

Visando atender uma grande quantidade de pessoas em um espaço de auditório que não permite grandes deslocamentos, o IFtalks foi idealizado tendo como inspiração a metodologia utilizada pelo Technology, Entertainment and Design talks (TEDtalks). Tal metodologia utiliza o storytelling para transmitir conhecimentos, um modelo de comunicação no qual se conta uma história em um processo consciente que possibilita a articulação de informações em um determinado contexto e com um fim desejado.^(3,4)

Considering the use of storytelling as a learning tool, this study aims to describe the applicability of this methodology, through the experience of a local officer as na organizer and presenter of the first two national editions of the IFtalks.

EXPERIENCE REPORT

IFtalks comprises interactive lectures in which students share experiences and knowledge gained both at IFMSA Brazil and at their graduation, bringing relevant topics to the personal and professional lives of listeners.

The first edition was held during the 55th General Assembly of IFMSA Brazil and addressed issues chosen based on demands observed throughout the year from contact with students from different local committees so that the program comprised six lectures: tips for public speaking, leadership, volunteer work during graduation, how to deal with sexism and oppression in college, experiences at congresses and the choice of medicine. The speakers, all local officers, were selected based on their curriculum and affinity with the proposed themes.

For the second edition, which took place during the 56th General Assembly of IFMSA Brazil, a form was elaborated in which students interested in speaking answered questions about their motivation, speech content, and presentation, to expand the reach of IFtalks. In this way, the topics covered were selected together with the speakers from the responses to the form, making the program consisting of four lectures: motivation, transphobia, reframing of memories, and the influence of IFMSA Brazil in medical practice.

Around 400 people attended each edition. All speakers, both in the first and in the second edition, were previously trained on storytelling techniques with materials provided by Fundação Estudar⁵, Endeavor Brazil⁵ and TEDtalks⁷, besides being guided on how to plan the presentations, ensuring that the methodology was respected.

In both editions, each lecture lasted 10 minutes, interspersed with moments in which the presenter brought a brief reflection on the themes presented, building a narrative to interconnect the subjects so that the IFtalks also counted a story.

A specific impact assessment for IFtalks has not been prepared. The feedback received was part of the evaluations of the General Assemblies, which contained space for observations about the activity.

REFLECTION

Storytelling has been part of human nature for over 30,000 years, even before the invention of writing. Besides entertainment, the storytelling process can be an important educational tool by enabling the connection between content and experience, making the process of receiving, interpreting, and understanding information easier and enhancing learning.

According to the cognitive scientist Roger Schank, human beings are not shaped to understand the logic, but to understand stories.(3) Storytelling, when applied properly, allows the interlocutor to stimulate specific effects in his listeners by modulating his speech according to the objectives he wants to achieve.

Upon hearing a story, the brain produces hormones such as dopamine, responsible for increasing focus, motivation, and memory, as well as endorphins, which stimulate relaxation, creativity, and focus. Processing facts activates the areas of Wernicke and Broca, and a well-structured narrative may involve additional areas such as the motor, sensory, and frontal cortex.(3,7) Narratives with components that lead to suspense, for example, cause the release of high levels of dopamine, while those with humor cause the release of endorphins.(7) During the lectures, it was possible to notice such effects on the listeners according to the narrative constructed by the speaker, going through laughter, exclamations of astonishment, admiration, and even tears at certain times.

According to Bruner's Learning Theory, the probability of memorizing information connected to a story is 20 times greater when compared to isolated information,(8) which reinforces the applicability of storytelling as a teaching methodology.

Besides the learnings related to the theme of each lecture, participants could develop empathy, since, according to Baumann, stories are "a mean of giving cognitive and emotional coherence to the experience", generating empathy on two levels: with the plot and characters of the story and its narrator.(9) Thus, the activity was also a way of motivating listeners based on the content presented. In both IFtalks, several feedbacks were reporting increased motivation to continue in IFMSA Brazil and to

apply the learned content, as well as praise about the themes and methodology used.

CONCLUSION

By carrying out the IFtalks using storytelling, besides valuing the experiences and knowledge of the local officers of IFMSA Brazil, it was possible to reach many people in environments different from those offered by the traditional teaching methodology and offer content that is not part of the current curriculum.

One observed limitation was the absence of a specific impact assessment for the activity, which could be beneficial to make adjustments in your organization. So far, two more national editions of IFtalks have been held on online platforms and Local Committees hosted several smaller editions all over the country.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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Davi Emmanuel Malcher de Carvalho
National Officer on Human Rights & Peace

Hello research and human rights enthusiasts!

Those who love to research and immerse themselves in the incredible world of science know that the best of the whole process of search and discovery is the possibility of helping other people, in their daily lives and in times of greatest need. Despite many advances related to "biomedical" themes, we cannot forget that it is necessary to develop a more sensitive look at the social determinants of health and the scenarios in Human Rights in Brazil. Thus, from my perspective, Human Rights Research has an essential element at its core that all research must have: its social function.

Currently, science, mainly related to the rights of minorities and equity, has been extremely threatened in the country, and it is the duty of all of us to ensure that this aspect remains alive and collaborating with Brazil. The difficulties are many, but our hope for better days is greater. Mister is still our competence to make those days happen.

Onward, researchers!

THE VIOLENCE UNDER A RACIAL FOCUS IN THE STATE OF MARANHÃO: A EPIDEMIOLOGICAL ANALYZE.

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Marina Vaz Rodrigues¹; Karyne da Costa Cavalcante¹;
André Felipe Aranha Ramos¹; Thaline da Costa Veloso²

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KEYWORDS: Violence; Race Factors; Social Epidemiology.

INTRODUCTION

Accordinging to the World Health Organization (WHO), violence is defined as intentional use of power or strength, real or in threat, against itself, or a group and community, that results or has the possibility to result in lesion, death, psychological damage, deficiency of development or privation.(1)

Violent events are referred to conflicts of authority, struggles for power and will to dominate, possess and annihilate others and their properties. Although, ending the notion of violence in a fixed and simple definition exposes itself to reduce it, to misunderstand its evolution and its historical specificity.(2)

Becomes evident that violence has, in its essence, the connotation of power and superiority that goes shaping and changing victims according to the groups, that at the moment, are in a situation of more social vulnerability or governmental and/or judicial helplessness.

Considering this reality, and having knowledge of the historical past and of the slave base of the Brazilian and Maranhão Society, pperpetuate a situation of social inequality for the black population because of the inexistence or scarcity of publics policies for historical repair, this article aims to identify the aggression profile in Maranhão State, once violence and racial discrimination promote effects in health-disease process of this population.

This affirmation is confirmed by identifying the implications of social determinants of health, that are the set of social, economic, political, environmental and cultural conditions, with the ability to shape epidemiological indicators and directly influence unequal access to health services.(3)

Based on this, the present study has analyzed the reflexes of racial reality in violence data of the State of Maranhão, with the scope of assessing whether there are higher relative rates of violence depending on race or color of the studied population. This article also has sought to stimulate further research on that matter, as well as draw government attention to this issue, so restorative public policies can be created and guaranteed.

METHODS

This article is a descriptive study about the profile of violence cases in the State of Maranhão notified between the years 2009 and 2018. Secondary data obtained in the Notification of Grievances System of the Computing Department of Health Unic System (DATASUS in portuguese) collected in August 2020 and in IBGE Automatic Reproduction System.

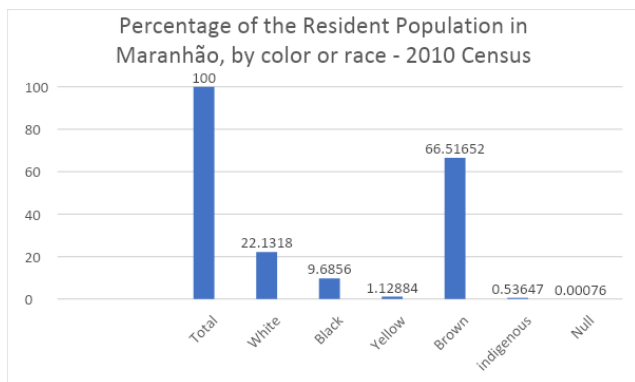
Inclusion criteria was violence cases notifications in the State of Maranhão. Time interval was defined by data availability on the DATASUS platform. Variables studied has been the various types of violence: physical, psychological, torture and sexual. This study also addresses cases of violence with the use of sharp objects or firearms.

Data were available in pie and column charts, built with the Microsoft Excel software (2019 version) and TabWin Program of the Health Ministry. Ethics Committee approval was waived as all data that had been used is secondary data and public domain.

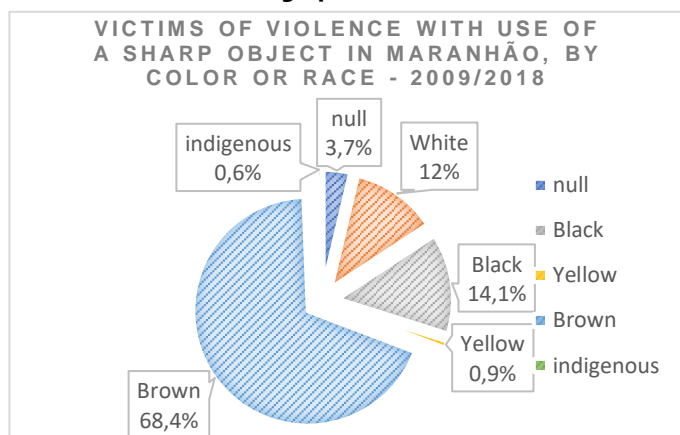
RESULTS

As results have been found that white population in the State of Maranhão – 2010 Census – was composed of 1,445,119 people, 22.1% of the 6,574,789 citizens, nevertheless they represented 11,3% (1,216, in absolute numbers) of physical violence victims, 10,7% (605) of

psychological violence victims, 15,5% (125) of torture victims, 14,1% (446) of sexual violence victims, 12% (288) of victims of violence with sharp objects, 11,9% (135) of victims of violence with firearms and 12,3% (182) of victims of any violence type who needed hospital internment.



Graphic 1: Percentage of the Resident Population in Maranhão, by color or race; IBGE - 2010 Demographic census.



Graphic 2: Victims of violence using a sharp object in Maranhão, by color or race; Health Ministry - Notifiable Diseases Information System.

On the other hand, black individuals that are 9,6% (636,808 individuals) of Maranhão total population, which is only smaller than the white population – 22,1% - and brown population – 66,5% - (graphic 1), represented 14,1% (338) of victims of violence with sharp objects (graphic 2), 15,2% (173) of victims of violence with firearms (graphic 3), 11,5% (362) of sexual violence victims, 8,4% (474) of psychological violence victims, 10,4% (1.120) of physical violence victims (graphic 4), 9,4% (76) of torture victims and 16,9% (249) of victims of any violence type who needed hospital internment.

DISCUSSION:

Violence against Brazilian black people, according to Florestan Fernandes, has been sustained by institutionalization of culture and moral extermination

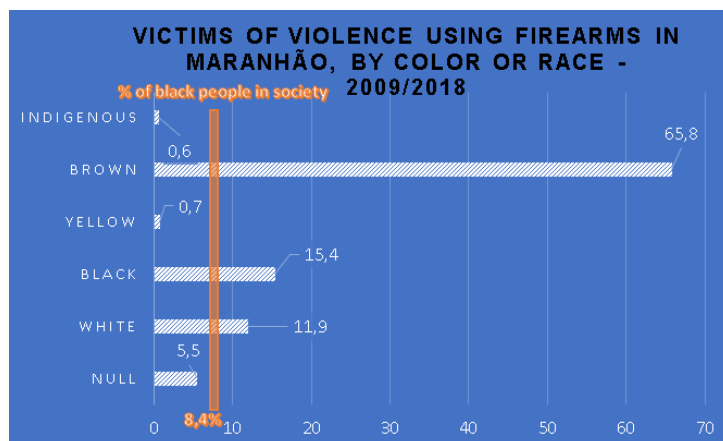
which is provided by a population who didn't integrate black people after the abolition.(4)

In this aspect, the analyses of major lethality incidence in black community show the repercussion of Brazilian slavery heritage, which, the non-guarantee of equality and effective rights for this population's segment results in a different social space for white and black people.(5)

Inequality has been ratified according to the study of Social Inequality by Colour or Race in Brazil of Brazilian Institute of Geography and Statistics (IBGE), in 2019, percentage of black people under the poverty's line is twice as white people, illiteracy levels in black people with 15 years or more are 9,1%, while for white community are 3,9%. Beyond that, in the labor market, managerial positions occupied by white people are 68,6% while black people represent only 29,9%.(6)

In this conjuncture, summation of racism, poverty and illiteracy have created a scenario of extreme vulnerability for Maranhão's black community, resulting in alarming violence's indexes.

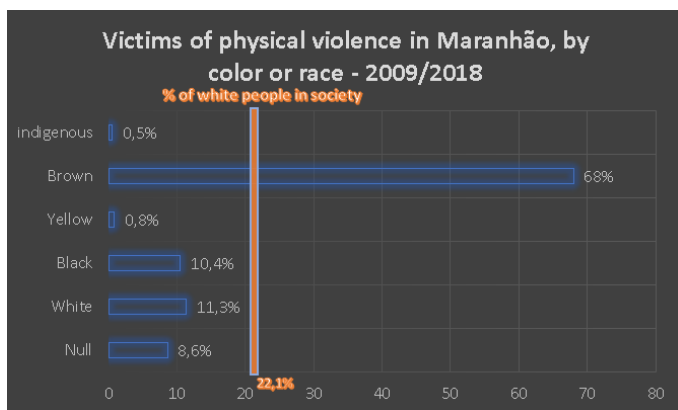
This lethal scenario has been seen in the results of the present study, proportion of white victims is less than in every analysed case of violence in Maranhão's society. Besides that, it is remarkable that the proportion of black victims – except in torture and psychological violence - is superior to their presence in society.



Graphic 3: Victims of violence using firearms in Maranhão, by color or race; Health Ministry - Notifiable Diseases Information System.

From the data, fire weapons and sharp objects stand out as the violence modes that percentage of black victims is higher than their presence in Maranhão's society and when compared with white victims. This phenomena can also be seen when victims of violence needed hospitalization, the percentage of black victims follows the same proportion previously cited.

This reality has shown that types of violence usually considered brutal – fire weapons and sharp objects – are the ones that make more black victims. Another information previously cited is that black victims are the ones who need more hospitalization, reaffirming the brutality in cases of violence against black people. Thus, the relationship between high levels of violence in this community and their social vulnerability is reiterated in Maranhão's reality.



Graphic 4: Victims of physical violence in Maranhão, by color or race; Health Ministry - Notifiable Diseases Information System

Another perspective to be analysed, and that increases the epidemiological data of violence against black people, is that racial condition that mixed-race self-declaration have. According to Florestan Fernandes, these individuals use this condition as escape from the social ills caused by structural racism. Thus, Brazil's historical whitening politics and part of collective imagination believing in a minor stigma with mixed-race individuals, it has been presumed that analysed indexes may not be entirely feasible with Brazil's society, and consequently, Maranhão's society.

According to the National Commission on the Social Determinants of the Health (NCSHD), the SDH are the social, economic, cultural, ethnic/racial, psychological and behavior factors that influence the occurrence of health problems and their risk factors on the population.(7) In this scenario, it has become clear the close relationship between the SDH and the results found in data analysis, that has shown the existence of abysmal differences in composition of percentage of violence's victims in the state of Maranhão. However, this article has some limitations like absence of statistical inference and use only secondary data.

Therefore, based on this article results of the present study and WHO's concept, defined in 1947, according to which health is "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity", (8) it is undeniable the impact of the violence under racial focus in health promotion of the Maranhão's

black population. In this way, in a national context, and, especially in Maranhão's society, stands out the necessity of accomplishing more research about the subject and creation of public policies that will guarantee to the black community their health access.

CONCLUSION

Therefore, according to the concept of violence against black community, which perception is based on racist and oppressor principles⁴, the state of Maranhão has been included in this context, as long as percentual are higher for violence suffered by black people when compared to white people⁹. It has shown how violence manifests in an unequal way when compared in racial bases in the state of Maranhão, indicating the importance of authorities' observance of this issue, mainly due to the framing of the problem in both security and public health. However, health inequities are ratified by the violation of the fundamental rights of each individual¹⁰. Based on this assumption, it is understood that social determinants interfere in the supply and quality of medical care³. Thus, the present study aims to improve knowledge about the rates of violence associated with race in the state of Maranhão, since it is essential to understand the effects of such problems in the concept of health and in understanding the specific demands of this population, seeking to train professionals qualified to assist these patients comprehensively. As a suggestion for future studies, we point out the possibility of this study being redone with the data from the 2021 Census.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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PANORAMA OF THE ADOPTION OF MINORS IN BRAZIL: AN INTEGRATIVE REVIEW

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KEYWORDS: Child, Adopted; Child, Foster; Family.

INTRODUCTION

Adoption in Brazil is regulated by the Statute of Children and Adolescents, especially Law 8.069/1990. This legal measure has many articles that guide the adoption process, specifying that guardianship is an exceptional and irrevocable measure since the priority is to keep the child, whose age should be at most eighteen years, in its natural family, but when proven that it is not possible the maintenance in the original family, the adoption process is used. Also, according to this statute, when adopted, the child is assigned the same rights and duties as a biological child, avoiding discrimination.(1)

The panorama of the adoption of minors in Brazil presents several contradictions, one of them due to the 2009 amendment of 54 articles of the Statute of Children and Adolescents, making the host institutions responsible for adopting measures to preserve family ties, in order to quickly restore family life. However, this process facilitates the permanence of the children in these institutions, hindering the adoption process until they become older, constituting late adoption, in which the adoptee has more than two years.(2) According to the report of children registered in the National Registry of Adoption, these children comprise 94.53% of the registered and 99.3% of those available for adoption.(3) Another contradiction in the Brazilian scenario is related to the number of applicants for adoption, which according to the National System of Adoption and Reception is 37094, while the number of children available for adoption is 52384.

Therefore, the objective of this review is to analyze and synthesize the current literature regarding the panorama of adoption of children and adolescents in the country, to answer the question of how the adoption process is configured in Brazil. Thus, it focused not only on the adoption process itself but also on the profile of the young people and applicants enrolled in the process. Besides, a focus was given to the so-called late adoptions and how it affects the child and the welcoming family.

METHODS

This paper presents an integrative literature review. For its preparation, we used the search keys "Child welcome" and "Adoption", both of which were taken from the Descriptor in Health Sciences (DeCS), in order to answer the guiding question "How is the adoption scenario in Brazil?". However, because the articles found did not fully contemplate the subject that was desired to address, which is the adoption process in Brazil, also sought "Adoption of young people in Brazil", "Pre-adolescent late adoption" and "Late adoption". The virtual databases searched were SciELO and LILACS, and the inclusion items were used for the selection: (1) studies published in English, Portuguese, or Spanish, (2) articles published between 2010 and July 2020, (3) that had full text available online and (4) that addressed the adoption process in general or only in Brazil. After finding 95 texts, articles addressing the adoption of young people in other countries, which were held outside the stipulated period of the last ten years or which did not yet mention the panorama of the adoption process were excluded. After

Study Identification	Year	Title	Author(s)	Type of Study	IES/Periodics
E1	2019	Children and adolescents taken care by the state of Rio de Janeiro: is adoption the solution?	Sandro Pitthan Espindola, Marcos Besserman Viana, Maria Helena Barros de Oliveira.	Original Article	Saúde em Debate
E2	2018	Teething Problems in Late Adoption: Challenges for the Parent-Child Bond in Parental Perception	Débora da Silva Sampaio, Andrea Seixas Magalhães, Terezinha Fêres-Carneiro.	Article	Pontifícia Universidade Católica do Rio de Janeiro, Rio de Janeiro, RJ.
E3	2014	Children and adolescents: the issue of adoption and subsequent return to holiday at home	Aline Taiane Kirch and Livia Copelli Copatti.	Article	Prisma Jurídico

the analysis of the studies, the final sample had ten articles, all in Portuguese.

RESULTS

E4	2013	The impact of adoption on the child's development.	Joana Baptista, Isabel Soares, Margarida Henriques.	Article	Faculdade de Psicologia e de Ciências da Educação da Universidade do Porto.
E5	2012	Fostering Children and Adolescents in Situations of Abandonment, Violence and Separation	Maria Clotilde Rossetti-Ferreira, Ivy Gonçalves de Almeida, Nina Rosa do Amaral Costa, Lilian de Almeida Guimarães, Fernanda Neisa Mariano, Sueli Cristina de Pauli Teixeira, and Solange Aparecida Serrano.	Article	Psicologia: Reflexão e Crítica.
E6	2017	The Role of The Psychosocial Team in Placing a Child for Adoption	Patricia Santos da Silva, Luciana Cassarino-Perez, Jorge Castellá Sarriera, Giana Bitencourt Frizzo.	Article	Psicologia: Ciência e Profissão
E7	2020	Motivações para a adoção tardia: entre o filho imaginado e a realidade	Débora da Silva Sampaio, Andrea Seixas Magalhães, Rebeca Nonato Machado.	Article	Pontifícia Universidade Católica (PUC), Rio de Janeiro, RJ.
E8	2010	What's the Profile of the Biological, Adopting Families and Adopted Child as Revealed by the Judicial Processes?	Fernanda Neisa Mariano and Maria Clotilde Rossetti-Ferreira.	Article	Psicologia: Reflexão e Crítica.
E9	2010	Investigating the adoption process in Brazil and the profile of adopters.	Luana Andrade Silva, Danielissson Paul de Mesquita, Beatriz Girão Enes Carvalho.	Article	Revista de Ciências Humanas.
E10	2014	Experiences of Families in Late Adoption.	Arielle Faverzani da Luz, Denise Gelain, Luana Martini Amaral.	Article	Revista de Psicologia da IMED.

Table 1 – Selected publications on Adoption of Children and Adolescents in Brazil. Source: Search Data

Table 1 presents 10 selected publications, all of which were Brazilian productions, highlighting the years 2010 to 2020. It has greater expressiveness around Psychology and the Legal area, with a little emphasis in the area of Medicine. Regarding the analyzed themes, all articles refer to the general panorama of the process of adoption and reception of children and adolescents in Brazil. Six of the texts have a strong focus on the legal part of the adoption process, stressing the importance of the Child and Adolescent Statute. Four works highlight the characteristics and difficulties of late adoption, especially for applicants and, finally, five articles focus on parents' expectations regarding adoption, which is permeated by positive and negative points, such as myths and prejudices.

The analysis allowed the identification of three dimensions addressed (Table 2), related to the process of adoption and family of this child and/or adolescent to new parents and a new social environment. Along with the dimensions are its main characteristics that will be discussed below.

Dimensões Abordadas	Características	Identificação dos Estudos (E)
Sistematização Nacional da Adoção de crianças e adolescentes no Brasil.	Compreendem leis, processos para o cadastro no Conselho Nacional de Adoção a partir de direitos das crianças e adolescentes presentes no ECA e um possível retorno à um ambiente familiar.	E1, E4, E5, E6, E8, E9.
Desafios de desenvolvimento e adoção tardia de criança e adolescente.	Entende-se que na adoção tardia trará consigo os registros de sua história de origem, porém, nem por isso é incapaz de negociar a afetividade e amor filial. Por isso, além de identificar características das crianças e adolescentes é importante analisar o futuro ambiente familiar disponível e seus impactos no desenvolvimento físico, comportamental, cognitivo e sócio-emocional.	E2, E4, E7, E10.
Problemas psicossociais e devolução dentro do processo de adoção.	Abrange-se na adoção muitas expectativas sendo envolta também por mitos e preconceitos.	E1, E2, E3, E5, E10.

Table 2: Dimensions addressed in articles published on adoption in Brazil. Source: Search data

DISCUSSION

After reading the texts indicated in Table 1, the main themes that guided the panorama of the adoption process in Brazil were selected, listed in Table 2. For the preparation of such a discussion, the search sites had few articles when using only keywords according to DeCS, especially when referring to late adoption, requiring auxiliary terms and phrases. Furthermore, the subject itself presented some flaws in relation to the fact that almost all texts referred much more to the legal part of the adoption process than to themes related to the adopted youth's point of view, for example, thus becoming a very vague perception of the most important part of the process. Finally, there was little reference to the psychological apparatus that both the adoptee and the adopter need for such a process.

4.1 NATIONAL SYSTEMATIZATION OF THE ADOPTION OF CHILDREN AND ADOLESCENTS IN BRAZIL

The responsibility for the care of children from one adult to another, in which it is called "adoption", was very much linked to the interest of adults and very little to the rights and needs of children and adolescents (E6).(5) In Brazil, from Art. 19 of the Statute of the Child and Adolescent – Law 8069/90, every child or adolescent has the right to be raised and educated in a family environment that guarantees their integral development.(1) Also, the Statute of the Child and Adolescent allows the adoption to occur unilaterally or single parent, joint adoption and singular adoption, that is, by any person over 21 years of age, regardless of their marital status, provided that there is a difference of 16 years between the adopter and adopted, also not being allowed to be adopted by family members(E8).(6)

From the legislative power, the National Council of Justice created the National Registry of Adoption in which it allows us to find registrations of children and adolescents and applicants qualified for adoption (E1).(7) Placement, the moment when the applicants are proposed who is the child to be adopted, is a process in which the psychosocial team of the host institution and the team of the Court of Childhood and Youth are involved in preparing the child for presentation and adaptation in the stage of coexistence (E6).(5) However, although adoption is considered an irrevocable action, in practice there is the return of children and adolescents to the public authorities, which makes it increasingly difficult to establish some affective bond in these minors (E4).(8)

4.2 CHALLENGES OF DEVELOPMENT AND LATE ADOPTION OF CHILDREN AND ADOLESCENTS

The adoption process in Brazil is dragged, although it has many candidate parents, there is a mismatch by what they idealize that it is for babies up to 2 years of age. However, most of the available children do not correspond to this profile, bringing negative consequences for the development of these children and adolescents (E9).(9) Thus, late adoption presents specificities and challenges for both parents and children in the construction of affective bonds (E5).(10)

Among the motivational factors that drive the search for the guardianship of a child, we mainly observe the desire to experience fatherhood. After not being the choice in most cases, it is the desire of couples with the impossibility of generating biological children or who have already gone through a parental experience, singles, divorced people, widowers who do not have the availability or desire to take care of a newborn (E2)2. Besides, there are candidate parents who modified the profile of the desired child based on the clarifications provided by professionals and sensitization with older ones (E10).(11) However, the presence of myths about late action concerning the child's past, attributed to the problem of the individual's return, contributes to their permanence in the host institutions and postpones adoption (E7).(12)

It was noticed that late adoption presents many difficulties after the child's previous history, however, if the parents understand the past that it brings, without denying it, it favors the construction of a new story (E2).(2)

Therefore, if the cause of the reception of many children and adolescents is based on the violation of some of their rights, they must be restored by the adoptive parents, so that there is the hearing about their feelings, fears and experiences (E5).(10) Moreover, by exercising care, affection and firmness in the placement of limits and rules, it is for a harmonious, safe creation and allows a new context for this family member to develop (E9).(9)

4.3 PSYCHOSOCIAL PROBLEMS AND RETURN WITHIN THE ADOPTION PROCESS

The process of adoption of an institutionalized young person is characterized as a model of development for previously inhibited aspects, such as their cognitive, physical, and mainly psycho-social character (E3).(13) The social life and affective bond of the sheltered children are composed, mainly, of people from the shelter themselves both with each other and with local coordinators. However, the organization of the structure and routine of the institution, based on the age group or gender of the children, does not favor the maintenance of these affective bonds, which represents a major obstacle to the construction of a personality based on experience in society (E5).(10)

The idea of a peaceful adoption needs to be based on a process of identification, enrichment and transformation of the family to which the young person will receive, requiring professional support to the family that is remodeling with the entry of a new member. Thus, the act of adopting is permeated by many norms, not only legal but also moral (E6).(5) Also, it is noteworthy that adoption cannot be experienced as a magical solution to problems, even because the new member has his/her baggage of experiences, which may have caused traumas that will act in future bonds (E2).(2)

The main factors identified were the characteristics of non-family parents, having difficulties to deal with the difference and enduring frustrations; characteristics of the child such as older age, medical conditions, having suffered sexual abuse; and characteristics of the context such as the difficulties the professionals who follow the process(E4).(8) Among them, racial prejudice is highlighted with children who are not light-skinned, thus calling attention to the racism that still permeates society. Another counterpoint is the almost always exclusion, on the part of adopters, of children who also have siblings in the shelter (E1).(7)

Finally, although the Statute of the Child and Adolescent determines that the removal of family power cannot occur due to poverty, this was one of the reasons mentioned in 40% of the processes, which is for this paration of parental bonds. Thus, it is necessary public policy strategies for employment, housing, health and education, which could support these families in their periods of difficulty (E5).(10)

CONCLUSION

This review allows a greater understanding of the adoption system in our country. The studies analyzed to highlight the Statute of the Child and Adolescent, which, together with the constitution, acts to guarantee the rights of minors, and the focus of this work is the minors who are in the adoption system. As mentioned earlier, the act of adopting is ruled by many norms, emphasizing morals, since the process of gaining guardianship is also the beginning of a family bond and, ideally, the gain of a new perspective of the child/adolescent involved. Moreover, the motivations behind the desire to acquire guardianship, as well as the desire to return the adopted, serve as an example of the disagreement of the imaginary and reality. The desire for a perfect child or the concerns generated with the adoption of an adolescent shows the latent need for the standardization of the dialogue about adoption since information is the most effective tool for breaking unrealistic expectations. In conclusion, this integrative review demonstrates the need for further studies on the adoption of young people in the country, since most of the studies focus on the judicial process.

However, few texts refer to the point of view of the adopter and adopted, showing a void in important matters related to the process, such as adaptation.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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WOMEN IN SCIENCE: STARS BEYOND STEREOTYPES – AN EXPERIENCE REPORT

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KEYWORDS: *Women's right; Research; Sexism; Gender mainstreaming.*

INTRODUCTION

According to Simone de Beauvoir (1967)¹, "One is not born, but rather becomes a woman". Such assertion reverberates the framework of stereotypes and gender roles historically and socially imputed to women, to the detriment of freedom of self-definition. Consecutively, such context impacts the choice of profession, socially limited to areas defined as consonant to the female profile and perpetuating the mismatch of other areas, such as science, as fields considered masculine.

The numbers indicate this gender inequality in Science, explaining that even in areas where there is a female majority or balance, disparities in high positions, such as rectories, still occur. Medicine, as a science, is no exception. After all, although 55% of graduates are women, only 4.3% of the holders at its National Academy are². This exclusion prevents new perspectives and research areas from opening up³, which delays science, urging the present debate.

Thus, to discuss this problem, its genesis, and maintenance, the activity "Women in science: stars beyond stereotypes" was idealized, a clipping of the project "Journey of science, health, and society". The action's and report's objective is to instigate the modification of the social-cultural structure required by the female presence in science, as argued by Schiebinger (2001)⁴.

EXPERIENCE REPORT

The action consisted of informative posts on Instagram and the providing of a thematic virtual library, added to the central point, a round table held with 2 invited professionals. All approaches were themed as "Women in Science: stars beyond stereotypes".

Two posts were made in late June and early July on the committee's Instagram. The first, disclosing guests who would attend the round table; the second, provided corroborative data on gender inequality in science and

dissemination of great Brazilian researchers, historical and contemporary, to highlight the importance of the theme and disseminate the work of such scientists that are not publicized.

Also on Instagram, a link to the virtual library was made available, with 4 scientific articles - selected by the responsible local coordinators -, with contents according to the event's theme, to enable community in-depth and theoretically based study, before the round table.

In the following, the central event took place, as a live broadcast, on Youtube, of the table "Women in science, stars beyond stereotypes", on July 2. It was structured with two mediators, local coordinators of IFMSA Brazil, and two guests: a neuroscientist, who mainly commented on the issue of motherhood in science, and a medical researcher, whose focus was the intersectional dialogue between gender and race.

The dynamics of the discussion included two moments: the first one with previously formulated questions, conducted by the first mediator, to the invited guests, and a second one with questions asked by the spectator audience, in the event chat, mediated by the second coordinator. The questions answered included both personal experiences in science - discriminatory by gender and race - as well as general aspects - problems, maternity, lack of representativeness, and possible solutions. To conclude, the scientists shared messages encouraging the practice of research by women.

REFLECTION

The guests' reports allowed the spectators to build critical thinking about the current situation, which is the main result of the action. This contribution becomes even more essential as it was an IFMSA Brazil's event, in which a large part of the public was composed of medical students - an area that still maintains gender inequity and demands individuals willing to change this inequality scenario.

The importance of the theme is well illustrated by the difficulty of searching for female scientists, which was the main challenge encountered in the action - not due to the shortage of these, but due to the small media diffusion. Not only that, the theme becomes even more relevant when it is found, by the study published in the journal "Frontiers in Psychology"⁵, that gender diversity provides, in addition to social justice, greater productivity of "scientific practice", with an addition of different perspectives to the debate and the investigations, an essential factor for the evolution of medical science.

In addition to the theme, the approach chosen was also essential to the impact, as the presence of women scientists on health allowed a greater identification of the participants with the professionals, who, by sharing their experiences, corroborated the data, illustrating, in a practical way, that the problem goes beyond statistics, making it tangible. In this sense, the impact of the action exceeded expectations, as exemplified by the comments of the spectators in the event chat, highlighting the importance of the initiative and reporting being shocked and recognized in the situations addressed.

Moreover, the realization of a round table converges with the pedagogical perspective of the educator Paulo Freire, whose line of research proposed moments of dialogue, the "circles of culture"⁶, in which different subjects of society provide the construction of knowledge from the socialization of experiences, reflections and, consequently, a possible social transformation. In an equivalent way, the event caused the participants an important reflection on the theme, which is a fundamental learning path.

Therefore, the debate was successful in explaining the contributory context to gender inequality in the scientific community and in highlighting the importance of support networks and socio-political-academic engagement in the cause, involving the viewer in change.

CONCLUSION

The action proved to be an instrument of elucidation and learning regarding gender disparities in the scientific environment, by promoting, through the amplification of the researchers' voices, the discussion of obstacles and social constructions. By debating and sharing journeys, it was possible to contribute to the deconstruction of stereotypes; to the questioning of the current segregationist cultural structure and to the reverberation of the presence of women scientists' importance and, therefore, of representativeness, to foster interest and to increase the number of female researchers. Furthermore, the discussion highlighted the urgency of public policies fulfilling the specificities of women, such as those relating to motherhood. The present action broadened the view

of individuals, elucidating the archaic gender structure that prevents the effectiveness of doing science and, therefore, of doing medicine, instigating engagement for equity and socio-academic improvement.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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THE REAFFIRMATION OF UNIVERSITY SOCIAL RESPONSIBILITY: REPORT OF A SOLIDARY PRANK FOR MEDICAL STUDENTS

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KEYWORDS: Social Responsibility; Medical Students; Solidarity; Socialization.

INTRODUCTION

Rituals are processes of formation and socialization that are perpetuated since the traditional societies, as a result of their great importance for the reaffirmation of traditions, the spread of knowledge and the establishment of commitment bonds between a certain group¹. The type of meaning and expression that these practices acquire are related to the socio-historical dynamics in which they were instituted, this being reproduced through its procedures, either in an intentional or unintentional way.

In this perspective, as an example of a contemporary ritual, the pranks practiced in medical courses are mentioned, which traditionally subject freshmen to violent and degrading acts for the recognition of an unequal power hierarchy². There is an urgent need to recreate this modern "rite of passage", because it still reproduces its medieval origins and the naturalization of structural violence present in Brazilian society¹.

Therefore, this work aims to demonstrate a prototype of a solidarity prank, promoted by the student body IFMSA Brazil UFERSA, which proposed to carry out a responsible socialization among the students of the medical course. Ergo, this model will be evaluated and related to Vallaeys, Cruz & Sasia's proposal, the University Social Responsibility (RSU).

EXPERIENCE REPORT

The action's first moment consisted of acquaintanceship, where the integration week calendar. Then, began the socialization of the course's classes and the implementation of the veteran-freshman orientation patronizing system. A personalized straw hat was also distributed by veteran students on that occasion, as an instrument that symbolized and represented regional aspects and was associated with traditions.

Following the schedule of activities, at the second moment, the incoming students divided into teams, to carry out a brief dispute based on some tasks, such as: posts on social networks, general knowledge quiz, creation of a name, a "Battle cry", a parody and choreography for the designated team and the collection of non-perishable food, which were later donated to the Saúde na Ruas 2.0 action, organized by IFMSA Brazil UFERSA itself. In addition to that, through the provision of audiovisual elements and painting materials, such as projectors for the viewing of thematic slides, sound boxes, paints and stopwatches, there was group work stimulus, so that each team was able to fulfill pre-established items and achieve certain scores. A scoring system was made, in which the group with the highest score received a symbolic prize as a bonus, to be shared with their colleagues.



Photo 1: Caption: Patronizing meeting between freshmen and veterans. Referencing: Personal collection photo. Description: It shows the IFMSA's committee with freshmen.

REFLECTION

University Social Responsibility deals with the university's commitment to the social, to the external community, as well as to the promotion by the university of actions that resonate and are consistent with its institutional ideology.

Even still, it deals with the use of tools or interior university links - from the integration of different areas, functions and people - for the execution of activities that contribute to the professional and citizen training of the individuals involved. Among the necessary factors for such humanistic training to be carried out, the following elements are mentioned: a curriculum orientation that has a close relationship with real problems; the development of collective actions (with students, teachers and communities) and the development of projects with mutual and permanent learning³.

From this perspective, validating the concept of RSU and, at the same time, mitigating and deconstructing a violent ritual pervaded in the social context, the Solidarity Prank activity generated several organizational, educational, cognitive and social impacts, for example, collecting 81.4 kg of food for people in homelessness, contributing to the reflection and training process of new socially responsible students and sharing values among students. One of the difficulties encountered in carrying out this activity was to obtain an incentive to participate in the proposed activities, both for incoming students and veterans, due to the prejudices they had about university pranks, and it was necessary to propagate an explanatory guide about what the whole program would be like and ensure the absence of humiliation and abuse.

Therefore, in a non-coercive way, were promoted: the reception of new freshmen, integration of knowledge among students and the reiteration of university institutional responsibility towards marginalized community groups or even in a situation of social vulnerability, without disregarding the internal and external "passage" traditions and the ideals of solidarity, individual autonomy and democracy.



Photo 2: Caption: Non-perishable food collected in the Solidary Prank. Referencing: Personal collection photo. Description: It shows the food collected with the action.

CONCLUSION

This solidary prank was positive in providing interaction between freshmen and veterans and "breaking" with the

violent prank paradigm that prevails, in line with the mentioned objectives, giving freshmen and veterans: teamwork notions, participation, proactivity, promoting substantive and indispensable values to life in collectivity and outlining a concern for the society around us and of which we are an active. However, even though it was experience with positive balances, permeated great the great adhesion of freshmen, with only a few occasional absences, the less adherence by veteran students did not go unnoticed, quite possibly due to the lack of reflection on the possible benefits that could be brought about from this solidarity prank, keeping in mind a very traditional vision of prank. Therefore, this project can serve as a model to the classes, showing to be efficient in the creation of more sensible students since the early years of academic education, culminating, also, in more empathic, socially conscious, and responsible, medical professionals.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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ACCESS TO PUBLIC HEALTH SERVICES FOR THE HEARING IMPAIRED: AN INTEGRATIVE REVIEW

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KEYWORDS: *Deafness; Hearing Loss; Public Health; National Health System (SUS)*

INTRODUCTION

The social inclusion of people with disabilities has been a topic of discussion at the global and national level, in an attempt to bring social, educational, and health equity to this significant portion of the population.(1) In Brazil, according to the 2010 Census, 23.9% of the national population has some type of disability, of which 5.1% are deaf(2) and, according to data from the Brazilian Institute of Geography and Statistics, about 1.1% of the Brazilian population had some type of hearing impairment in 2013.

Although it is a right of the deaf people to have access to quality health services, these are often treated incorrectly and even disrespectfully due to the difficulty in communication, whereas health services do not have professionals trained to provide excellent care to them.(1)

Created three decades ago, the National Health System (SUS) still demonstrates great inequalities in the distribution of resources, service promotion, and accessibility to health.(4) Within this scenario, the deaf community is part of the people that doesn't receive equal care in public health systems, and is even being marginalized.(5)

Based on Decree 5626/05, established in 2005, it was mandatory to provide the National Health System (SUS) services for the care of the deaf people, being set that in a health unit, at least 5% of employees should know the Brazilian Sign Language.(6) However, more than 10 years later, the public health system still presents flaws and obstacles in the care of this portion of users.(1)

Thus, this review aims to analyze and synthesize the current literature regarding the access to public health services for the hearing impaired, to answer the question about how the process of care for the hearing impaired in public health in Brazil configured. Therefore, we sought to identify the main obstacles and difficulties faced by the

deaf community regarding access to health, and strategies to combat them. Also, the elderly population was highlighted, since deafness, as the age goes by, is part of the degenerative process related to the individual's natural aging.

METHODS

This is an integrative literature review. The search keys used for its preparation were: "Deafness", "Hearing Loss" and "Public Health", all of which were in accordance with the Health Sciences Descriptors (DeCS). In order to enhance the research, the term "Hearing impairment in public health" was included in addition to the descriptors. The virtual databases used were: SciELO and LILACS. The data analysis was written in agreement with the inclusion criteria based on the theme proposed by the present study, being (1) study conducted between 2009 and 2019, (2) that had full content available online, (3) published in English, Portuguese or Spanish languages and (4) that addressed health accessibility strategies to the deaf community. After finding 130 articles, the studies evolving the deaf community without referencing health services, repeated articles and studies that have not been performed in the last ten years were excluded. After the analysis of the studies, the final sample resulted in six articles, all in Portuguese.

RESULTS

Subsequent to a general search for the subject and delimiting the aspects that involve deafness in public health (Spreadsheet 1), the focus was on the themes of inclusion of the disabled within the Unified Health System and the National Policy on Hearing Health Care, addressed in three of the seven texts chosen. Another important topic, which also appeared in three articles, was the difficulty of communication with patients with disabilities because of the ignorance on the part of health professionals about the Brazilian Sign Language.

Study Identification	Year	Title	Author(s)	Type of Study	IES/Periodic
E1 ⁷	2011	Contributions for the Brazilian hearing health policy assessment	Maria Cecilia Bevilacqua; Marina Morettin; Tatiana Mendes de Melo; Regina Célia Bortoleto Amantini; Maria Angelina Nardi de Souza Martinez	Original Article	Revista da Sociedade Brasileira de Fonoaudiologia
E2 ⁸	2014	Principles of universality, comprehensiveness and equity in a hearing health care service	Nubia Garcia Vianna; Maria de Lourdes Tavares Cavalcanti; Moab Duarte Acioli	Free themes	Ciência & Saúde Coletiva
E3 ⁹	2013	National Program For Hearing Health Care: advances and obstacles of hearing health in Brazil	Caio Leônidas Andrade, Luciene Fernandes, Helton Estrela Ramos, Carlos Mauricio Cardinal Mendes, Crésio Alves	Article	Revista de Ciências Médicas e Biológicas
E4 ¹⁰	2017	Medical Doctors' Knowledge of Libras in the Federal District and Deaf Patient Health Care	Letícia Ferreira Gomes; Fernanda Cordeiro Machado; Mayara Melo Lopes; Raiane Soares Oliveira; Bruno Medeiros-Netherlands;	Article	Revista Brasileira de Educação Médica
			Luciana Bonifácio Silva; Janaina Bianca Barletta; Ludmyla Kandratavicius		
E5 ¹¹	2009	Access by hearing-disabled individuals to health services in a southern Brazilian city	Daniela Buchrieser Freire; Luciana Petrucci Giant; Jorge Umberto Béria; Lillian dos Santos Palazzo; Andrea Cristina Leal Figueiredo; Beatrice Carmen Warth Raymann	Article	Cadernos de Saúde Pública
E6 ¹²	2012	Dificuldades na comunicação entre pessoas com deficiência auditiva e profissionais de saúde: uma questão de saúde pública	Shamyr Sulyvan de Castro; Karina Mary Paiva; Chester Luiz Galvão Caesar	Original Article	Revista da Sociedade Brasileira de Fonoaudiologia

Table 1 - Selected publications on hearing impaired people in Public Health in Brazil. Source: Search data.

Ultimately, the profile of the largest contingent of people with hearing impairment in the country was delimited, which is mainly represented by elderly people (Spreadsheet 2).

DISCUSSION

After reading the texts indicated in Spreadsheet 1, the main themes that guide the difficulty of health care by deaf people, listed in Spreadsheet 2, were picked. To build such a discussion, the search engines applied have few articles when using only the keywords according to the DeCS, requiring the use of auxiliary terms and phrases. Furthermore, the subject itself has some shortcomings about the fact that there are few texts that address access to health for the hearing impaired specifying the region/state of the country, something of extreme importance for the construction of a complete panorama on the subject. Finally, most of the works used to address health, not specifying whether the reference to the difficulty of communication comes only during medical care itself or even in basic points, such as making appointments.

Topics addressed	Identification of Studies (E)
Inclusion of the hearing impaired within the Unified Brazilian Health System and National Policy on Hearing Healthcare.	E1, E2, E3
Communication difficulties with inefficacy of care and unequal accessibility	E4, E5, E6
Hearing impairment in the elderly	E2, E3, E5

Table 2 - Topics addressed in the articles published on hearing impairment. Source: Search

4.1 INCLUSION OF THE HEARING IMPAIRMENT IN THE NATIONAL HEALTH SYSTEM (SUS) AND NATIONAL POLICY ON HEARING HEALTH CARE

Since its creation, the principles of the National Health System (SUS) have proved insufficient to achieve broad care for deaf people. In 2004, the National Policy on Hearing Health Care(7) was created, a measure that prioritizes the tripod of universality, integrality and equity in health care (E1). Following the principle of universality, it is expected that there will be a multidisciplinary team to meet the demands of audiological evaluation, application of individual sound amplification device and provision of a speech therapy adaptable to each patient's situation. According to the principle of integrality, the articulation of health actions and services as a whole is prioritized, meeting the patient's needs in an intersectoral way, providing the hearing aid, if necessary, but not only this, sessions of speech therapy, psychological care and social work should be provided as well. Finally, the principle of

equity ensures that all individuals must have the same opportunity to develop their full health potential, paying attention to their uniqueness and its reality, such as factors of social inequality. Nevertheless, the main difficulty to fulfill the three points, lies above all, in the difficulty of communication, with no integrality and equity attributable to a possible lack of a dialogue between the professional and the patient, which further compromises interdisciplinary care. Moreover, universality encounters difficulties regarding the provision of hearing aids, in addition to the scarcity of vacancies for therapy (E2).(8)

Regarding the distribution of hearing impairment patients in Brazil and the relationship with public health, local data indicates that the North and Midwest regions are the ones with the lowest rate of searching for comorbidity-related care, such as follow-up visits to maintain the use of the devices (E1).(7) Data also reveal the existence of inequality in access, such as the difference in active health units accredited by region, and some presented numbers below the stipulated by habitants, while others, such as the South region, presented a much higher number, in addition to the divergence in the distribution of these units, with greater concentration in urban areas to the detriment of the interior (E1).(7) In a general context, it is understood that the Policy on Hearing Health Care, since its implementation, has humanized the care of people with hearing impairment bringing more integrality and universality to users, being an international reference when analyzing the evolution of the Brazilian scenario in hearing health.(7) However, the data pointed out suggest that there is still great heterogeneity and inequality by this policy in the country, implying difficult access to the actions of Hearing Health Care.(9)

4.2 COMMUNICATION DIFFICULTIES WITH THE INEFFICACY OF CARE AND UNEQUAL ACCESSIBILITY

After the federal decree of 2005, the National Health System (SUS) should be able to serve the deaf community, which needs differentiated attention(10), however, this is not the reality that Brazil is in. According to a 2013 study, primary care presents challenges when welcoming and communicating when it comes to patients with hearing impairment due to the non-knowledge of sign language (E4).

Since anamnesis is the main point of a consultation, the dialogue between both involved is extremely important.(10) However, with the difficulty of communication, it is necessary for the presence of a mediator during the consultations. This fact represents a difficulty that often culminates in inequality of supply in health services since the presence of a third person can lead to patient embarrassment (E5).(11)

According to a 2017 survey of physicians from the Federal District, the vast majority reported having already provided care to deaf patients, and a tiny minority knew Brazilian Sign Language.(10) Another study, conducted with patients with hearing impairment in the city of São Paulo, reveals that 35% of the interviewees confirmed some difficulty in understanding what health professionals said in their last consultation, either in the private service or in the health public (E6).(12) It is noted, therefore, that the greatest obstacle in the relationship between hearing impaired people and public health is the almost absence of Brazilian Sign Language speakers.

4.3 HEARING IMPAIRMENT IN THE ELDERLY

Hearing loss is often underdiagnosed, especially in the elderly.(9) Still, the elderly population constitutes the largest share of the number of hearing-impaired people in the national scenario. This fact may be related to presbycusis, the main cause of acquired hearing impairment in Brazil (E3).(9) Contradictorily, the number of speech therapy for adults and the elderly in the rehabilitation sector of hearing health services is reduced, which impairs adequate adaptation to the hearing aid (E2).(8) There is a lack of any Hearing Health program aimed at the elderly public, which could be included within the pillar programs of primary care. Therapy services after hearing system placement are organized according to priorities and, as children are in the process of developing, the absence of therapy commonly brings more harm to them than to adults.(8)

CONCLUSION

All things considered, it is clear the importance of improving the attention and care of people with hearing impairment. It is observed that a large portion of the services do not use adequate tools for a good dialogue with the hearing impaired people, what does not allow qualified listening and, as a consequence, the unpreparedness for such situations causes anguish and anxiety in professionals and patients. This assessment demonstrates the relevance of the implantation or expansion of the Brazilian Sign Language study in medical training and in other courses in the health area, which would result in greater confidence and quality in the doctor-patient relationship and, consequently, in more human and comprehensive service. Furthermore, it is essential to implement public policies that make the promotion, prevention, treatment and rehabilitation of these patients possible. Finally, the elaboration of this integrative review demonstrates the need for an expansion in studies related to health issues for the hearing impaired in Brazil, to create an overview of where these individuals are and what are their greatest difficulties when attending a service.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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Paulo Miguel

National Officer on Sexual and Reproductive Health & Rights Saúde, incl. HIV and AIDS

Hello SCORAngels!

It is with great joy that, again, I am proud to present to you the section on Sexual and Reproductive Health and Rights, including HIV & AIDS, from the last BMS of the year!

Difficult moments cause changes and sometimes changes cause difficult moments. This was certainly a difficult year; pandemic, social and economic dismantling and countless other events where, constantly, we needed to raise our voices and defend the right. Be a fight for the defense of your own body; for justice for Mariana; for universal access to contraceptive methods; be it for the freedom to love. This year we fight and each article here is proof of that!

It is incredible to realize that, even with this chaotic lull, the good things of IFMSA Brazil (and the world) have not stopped. Each head that sought to make a difference in innovative ways, pioneering and treading paths through the most different digital platforms ... each of these minds was indispensable to get here, in this incomparable selection of incredible experiences of local coordinators from the north to the south of the country.

We faced so many setbacks and in none of them we remain silent. We will not shut up. Never.

SCORA

THE MENTAL HEALTH OF PREGNANT WOMEN IN THE CONTEXT OF SOCIAL ISOLATION: AN EXPERIENCE REPORT

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KEYWORDS: *Depression; Pandemics; Self Care; Pregnancy.*

INTRODUCTION

The global health crisis caused by coronavirus (Covid-19) brings many harms and among them the feeling of fear that, as it increases, can generate anxiety and stress (1). During this period, people whose mental health is affected is usually higher than the number of people actually infected by the virus (2). In this sense, with regard to pregnant women, it's notorious that Brazil has a prevalence rate of prenatal depressions of about 20% (3), which in view of the current context can be enhanced due to social isolation. Therefore, in this moment of uncertainty the traditional customs of society, such as baby showers, are no longer realized and this directly affects the expectations related to pregnancy, as well as the distancing of family and friends that enhances the feeling of loneliness and apprehension. Thus, the action "Pregnant: love in quarantine time", was considered and executed thinking about the mental health of pregnant women, with the main purpose of informing, guiding and reassuring the target public, through a multidisciplinary approach that offers means and practices of promoting mental health during quarantine, aiming in particular to stimulate self-care, this way, projecting a better gestational period.

By these means, this report aims to talk about the importance of the health of pregnant women, more specifically during the social isolation of Covid-19, describing an action to promote the mental health of pregnant women.

EXPERIENCE REPORT

The action "Pregnant: love in quarantine time" (Picture 1) took place between June 9 and July 11, 2020, with the principle of informing and promoting the mental health of pregnant women during the Covid-19 pandemic. During this period, Instagram was used as the platform

for divulgating the content, in which lives (Picture 2), IGTVs and informational posts, in addition to having a group on WhatsApp (Picture 3), which had as main purpose a more direct contact with pregnant women. Said published content had the help of professionals, such as journalist, gynecologist, physiotherapist, psychiatrist, aromatherapist and infectologist, which passed on extremely important information to pregnant women who are experiencing this moment of fear and uncertainty. In the impact analysis, a form was generated prior to the execution of the action, with questions regarding mental health in the quarantine period and questions about self-care. After the action was taken, another form was generated for qualitative assessment of activity, leaving space for personal reports about the experience and to define the action, making it possible to verify a deep level of general satisfaction about the participants' mental health.

Thus, due to the results obtained, the positive points achieved were a better understanding of the mental health of pregnant women during quarantine, an understanding of the main afflictions related to pregnancy and especially the ability to reach pregnant women positively from different locations through the internet, bringing important knowledge and self-care guidelines to them. As for the negative points that emerged during the action, it's important to highlight the unavailability of some professionals, such as the nutritionist, the difficulty of disclosure to the target audience and some technical problems related to the fact that the action is online and some "lives" have been harmed.



REFLECTION

In this perspective, it's clear the importance of putting mental health ahead, especially when it comes to a context never experienced before and a group that is naturally forgotten, due to the romanticization of pregnancy by society. A study at the University of Calgary, Canada, found that pregnant women are experiencing substantial psychological distress, including significantly elevated anxiety and depression during the COVID-19 pandemic. These levels exceed what was expected during pregnancy and experienced by other groups of people in the pandemic (4).

Therefore, it's known that the effects of stress and anxiety in pregnancy have considerable consequences for the baby that can last for adolescence and adulthood, so it's necessary to support pregnant women in this critical period to contain negative long-term results. Therefore, during the pandemic, the internet became the main and often only way to access pregnant women and bring them information and tools to adapt to the new reality and deal with the loneliness often caused by social detachment (5).

Thus, the project was abundantly beneficial and extremely important in this period, being support, entertainment and learning, as demonstrated by the participants' report: "It was of great help to me, pregnant woman.", "A very well thought out action to help pregnant women in this very delicate moment." and "A beautiful job with highly qualified people". In addition, in the post-test carried out, 90% of pregnant women felt satisfied with the action, 80% considered it was useful for mental health and 100% considered that the project helped her and that it would indicate the Instagram profile.

CONCLUSION

The action acted in order to positively achieve the mental health of pregnant women in the period of social isolation through information by virtual scope. In this sense, in all areas in which the practice of the action was proposed,



there was significant acceptance and support, through aid in the structuring of disclosure, as unlimited access to pregnant women. It was concluded that the main objective of creating affective bonds and welcoming future mothers and families during the months of pandemic was achieved, since it was possible to verify a deep level of general satisfaction and social relevance about the mental health of the participants and all activities and sessions obtained optimistic evaluations. However, there were some limitations, highlighting the difficulty in reaching the main target audience (pregnant women), in view of the virtual exhibition environment, covering the scope and dialoguing with different audiences. With regard to the social relevance of the action, it's feasible to end that was possible to collaborate in the discussion of a theme that is still little widespread and that ends up being unnoticed. Finally, the action promoted has a large arsenal of planning and future expectations, seeking a more intimate and humanitarian assistance by designing face-to-face actions that can train and care for this target audience in a more potential and welcoming way.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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YOUTH ADVOCACY AND LEADERSHIP IN THE CONTEXT OF HIV: NA INTEGRATIVE REVIEW

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KEYWORDS: *Sexual health; Sex education; Gender Inequality; Emergencies.*

INTRODUCTION

Sexual and reproductive health and rights (SRHR) is an inclusive term that is defined as the human rights of all people to make free and informed decisions concerning their sexual and reproductive lives free from any form of discrimination. It includes not only the absence of illnesses but also the full enjoyment related to the sexual and reproductive health of the individual.(1) HIV is a predominantly sexually transmitted infection or associated with pregnancy, childbirth and breastfeeding.(2) In 2018, there were about 1.7 million new HIV infections and every week, about 6,000 young women aged 15 to 24 are infected with HIV. The number of adolescents living with HIV has risen by 30% between 2005 and 2016, with the majority of these living in low- and middle-income countries.(3,4)

The world has committed to achieving the 2030 Agenda for Sustainable Development which consists of 17 Sustainable Development Goals for implementation by all segments of society. Some of these goals are related to HIV since poverty can increase vulnerability to HIV infection and lack of universal health, including sexual and reproductive health services, restricts access to HIV prevention and treatment. As part of that, governments must protect and uphold the human rights of everyone.(5)

Undoubtedly, young people need access to a range of SRHR and HIV information and services related to their physical, social, emotional, and sexual development.(6) Yet their health and rights are still too often denied. Although young people are full sexual individuals and creative and aspirational beings, their capacity, autonomy, and opinions to make decisions about their health and well-being are hardly acknowledged due to, most of the time, conservative values. As a result, SRHR is often ignored, neglected, or actively written out of government policies.(7,8)

Against that, advocacy can be defined as the act or process of pleading or arguing in favor of a cause, idea, or policy. It includes multifaceted and multileveled strategies that can be taken to broad change. Young people have a fundamental right to co-decide on issues that concern them directly and no policy should be decided by anyone, independently of the position of power, without the full and direct participation of members of the group or groups affected by that policy.(7)

That said, the main objective of this work is to present an integrative review of the main studies that deal with how youth leadership and advocacy for the SRHR can act facing the global context of HIV infection in this population of young people.

METHODS

This study is an integrative review that synthesizes current and available research on the subject. For the selection of articles, the MEDLINE database (Pubmed) was used, chosen for promoting online access to scientific information relevant to the development of global health. The selection of studies was made in June 2020.

Descriptors such as "youth", "leadership OR advocacy", "SRHR" and "HIV" were used, these were later merged into one final QUERY with the boolean value AND. In total, 84 articles were obtained. Subsequently, the following inclusion criteria were established i) full texts, ii) no language restriction, iii) published in the last 10 years iv) containing two or more descriptors as keywords. The exclusion criteria adopted were: texts that were not fully available in the given period, texts that were not articles and research that did not specifically address the theme.

After applying the criteria 23 articles remained, which after reading the abstracts were reduced to 11 for not

specifically addressing the research topic. Then, after reading the articles, the main aspects of each one were presented synthetically (Table 1). The results obtained in the previous step were analyzed, interpreted, and discussed to meet the objective, tracing the profile, as well as the characterization of the themes identified in the analyzed publications.

RESULTS

Eleven articles were selected, one of which was a supplementary article, 8 of them were review articles and 2 were original articles, all in English and shown in Table 1. After analysis, there were two sub-themes concerning the study.

DISCUSSION

4.1. GENDER DISPARITIES

Up to 3 times more young women aged 15 to 24 in East and South Africa are living with HIV compared to men. Vulnerabilities in youth are often exacerbated by the effects of social disparities and biological differences, exposing young girls to various risks of infection. Some examples are: unknowingly choose an older sexual partner who may already be infected with HIV, early sexual debut, teenage pregnancy, early school dropping and sexual violence. It is important to note that these scenarios can also increase the risk of keeping them in vicious cycles of poverty and dependence.(9)

The biological mechanisms that make women more vulnerable than men in acquiring HIV are not yet fully established, although a contributing factor may be the large exposed mucous surface of the vagina.(9)

According to a scope review, in emergency contexts, women and girls are subject to serious violations of their human rights stemming from gender inequality. These may include reduced access to HIV prevention and reproductive health services, rape as a weapon of war, trafficking, sexual exploitation or prostitution as a means of survival.(10) However, a negative point to be considered in this review was the scarcity of evidence to address this issue.

Concerning HIV prevention and treatment programs, it is very important to integrate sexual and reproductive health services with HIV and AIDS. These should be focused on young people and adapted to meet the diverse needs of different groups, according to age, gender, and social background.(11)

4.2. YOUTH ADVOCACY AND LEADERSHIP

According to UNESCO, advocacy and civic engagement are necessary for designing HIV prevention programs, but also in empowering students beyond the curriculum, as

agents in their own lives and leaders in their communities.(12) Although many adults find it difficult to recognize adolescents as sexual beings and think that this characteristic must be controlled. In 1994, The International Conference on Population and Development Plan of Action already highlighted the importance of addressing HIV among adolescents, with an emphasis on prevention and explicitly cited the need for comprehensive sexuality education (CSE) and adolescent involvement in the design of such programs.(13)

Youth involvement in responding to HIV has been a mark of NGOs and UN agencies since the early days. Young people remain involved in advocacy, policy, and program development and service delivery (for example, as educators and navigators). Increasingly, their involvement is recommended in the normative guidance, assessed through studies, being after all a mandatory element in the financing proposals.(12-14)

A Canadian observational study highlighted that participation in an HIV leadership program improved disparities in the awareness of young gay and bisexual men about PrEP and PEP and also optimism in treatment. In addition, previous studies claim that participation in the program is associated with increased condom use.(15) However, the study's observational design, while providing a real-world perspective of effectiveness, is not able to produce the specific effectiveness data that randomized trials would produce.

Another research on Peer Education conducted in schools in New Jersey found that adolescent peer educators (versus comparative students) reported significantly greater opportunities to practice sexual risk reduction skills and greater intentions to talk to friends, parents and partners about sex and birth control and felt more confident to ask a partner to do STI tests, including HIV.(16) Nevertheless, the study presented a limitation, which was the dosage of the intervention across sites. One school was able to implement the intervention for a considerably longer period of time, and thus peer educators (intervention students) from that site had a higher dosage of the intervention.

Year	Title	Authors	Periodic	Considerations
2017	Prevention of HIV in Adolescent Girls and Young Women: Key to an AIDS-Free Generation	QA Karim, C Baxter, D Bix	J Acquir Immune Defic Syndr, 75, S17-S26	Discuss about The goal of DREAMS, a project to ensure that adolescent girls and young women have access to prevention technologies and strategies, and the opportunity to complete high school and graduate HIV-negative, STI-free, and without pregnancies.
2011	Sexual, reproductive health needs and rights of young people with perinatally Acquired HIV in Uganda	Baryamutuma R, Baingana F	African Health Sciences, 11(2), 211-218	Reviews literature on sexual and reproductive health needs and rights of young positives. Concludes that is important, that policies specifically targeting this subgroup are formulated to result in programs youth friendly.
2019	HIV leadership programming attendance is associated with PrEP and PEP awareness among young, gay, bisexual, and other men who have sex with men in Vancouver, Canada	Closson, K., Chown, S., Armstrong, H. L., Wang, L., Bacani, N., Ho, D., ... & Hogg, R. S	BMC public health, 19(1), 429	Compares differences in HIV prevention awareness, health care access, and service utilization between youth and adult GBM, as well as factors associated with attendance in HIV leadership programming among YGBM living in the publicly funded PrEP setting of Vancouver, Canada.
2013	Adolescent health, global guidelines versus local realities: the Sub-Saharan Africa experience	Dube, K., Van der Putten, M., Vajanapoom, N.	Journal of public health in Africa, 4(2)	Discuss the implementation of global guidelines of adolescent sexual and reproductive health into national policies of Sub-Saharan countries.
2015	Sexuality Education: Emerging Trends in Evidence and Practice	Haberland, N., Rogow, D.	Journal of adolescent health, 56(1), S15-S21.	Summarizes the elements, effectiveness, quality, and country-level coverage of Comprehensive Sexual Education. It discusses the logic of an "empowerment approach to CSE" that seeks to empower young people especially girls and other marginalized young people.
2019	Improving the Youth HIV Prevention and Care Cascades: Innovative Designs in the Adolescent Trials Network for HIV/AIDS Interventions	Naar, S., Hudgens, M. G., Brookmeyer, R., Idalski Carcone, A., Chapman, J., Chowdhury, S., ... Ingram, L.	AIDS patient care and STDs, 33(9), 388-398.	Provides as overview and discusses the Adolescent Medicine Trials Network (ATN) for HIV/AIDS interventions, dedicated to research the needs of youth at high risk for HIV acquisition as well as youth living with HIV.
2014	Effects of a school-based sexuality education program on peer educators: the Teen PEP model	Jennings, J. M., Howard, S., Perotte, C. L.	Health Education Research, 29(2), 319-329	Evaluates the impact of the Teen Prevention Education Program (Teen PEP), concluding that school based sexuality education programs offering comprehensive training to peer educators may improve sexual risk behavior knowledge, attitudes and behaviors among high school students.
2015	Interventions targeting sexual and reproductive health and rights outcomes of young people living with HIV: a comprehensive review of current interventions from sub Saharan Africa	Pretorius, L., Gibbs, A., Crankshaw, T., Willan, S	Global health action, 8(1), 28454	Review and synthesise evaluated interventions aimed at improving the SRH outcomes of YPLWH in SSA. Concludes that intervention approaches require greater scope and depth, including the need to address structural and contextual challenges.
2019	Prioritizing the sexual and reproductive health and rights of adolescent girls and young women within HIV treatment and care services in emergency settings: a girl-centered agenda	Roxo, U., Mobula, M. L., Walker, D., Ficht, A., Yeiser, S.	Reproductive health, 16(1), 57	Review identified studies on HIV intervention and outcomes in emergency settings. Concludes that a plurality of competing needs crowds out dedicated time and space to effectively integrate HIV and SRH interventions in emergency settings.
2019	The political, research, programmatic, and social responses to adolescent sexual and reproductive health and rights in the 25 years since the International Conference on Population and Development	Chandra-Mouli, V., Ferguson, B. J., Plesons, M., Paul, M., Chalasani, S., Amin, A., ... Husain, S.	Journal of Adolescent Health, 65(6), S16-S40	Reviews progress made in low- and middle-income countries in the 25 years since the ICPD in six areas central to ASRH adolescent. Concludes that there has been great progress at the global and regional levels in putting adolescent health higher on the agenda.
2015	Ensuring youth's right to participation and promotion of youth leadership in the development of sexual and reproductive health policies and programs	Villa-Torres, L., Svanemyr, J.	Journal of Adolescent Health, 56(1), S51-S57	Reflects on the concepts of adolescence, youth and the impact of youth participation in the field of sexual and reproductive health and rights (SRHR). Concludes that youth participation in program and policy development should still be a priority.

Table 1: Articles information

It is important to reaffirm that advocacy for CSE should be not only a health measure but also a social measure, as a way to help countries achieve the SDGs on gender equality and as a potential strategy to strengthen education in general.(12)

According to a systematic review that aimed to assess the impact of youth participation in the field of sexual and reproductive health and rights, more research and documentation is needed, as well as the adoption of innovative practices to involve young people in SRHR programs. Participation is a right and should not be evaluated only in terms of effectiveness and impact. Youth collaboration in the development of programs and policies must still be a priority.(13,14) Despite this, there were few studies that attempted to systematically evaluate youth participation, which can represent a limitation of the research.

Furthermore, the importance of addressing inequalities in access to services and the need to create inclusive policies and environments for young people from minority groups, such as young people living with HIV and the LGBT population, have been increasingly recognized.(17-19) It is necessary to continue seeking meaningful participation by young people. To this end, analysis of methodologies is mandatory to evaluate intervention programs and their real impact and implementation in different countries, since these groups have specific needs and challenges related to their SRHR.(14)

CONCLUSION

Therefore, it was demonstrated that HIV prevention and treatment services and programs must be designed and implemented to serve a population that, despite being large, has specificities that must be taken into account. To this end, young people must act as a component of the program planning process and the creation of welcoming and youth-friendly counseling environments, where adolescents feel comfortable receiving guidance on their health and their sexual and reproductive rights.

Although this work has achieved its objective, it is important to point out some limitations, such as the use of a single database for the searching of studies, which may have restricted the results. Also, it is emphasized the need for further studies to investigate the importance and how advocacy strategies can impact the implementation of public policies for youth.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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SCORA EXCHANGE ONLINE: REPORT OF THE REMOTE INTERNATIONAL LEARNING EXPERIENCE IN SEXUAL AND REPRODUCTIVE HEALTH AND RIGHTS AS A MEDICAL

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KEYWORDS: *International Educational Exchange; Sexual Health; Reproductive Health; Public Health.*

INTRODUCTION

As an opportunity to internationalize higher education, exchange promotes multiculturalism and the construction of a more critical and reflective curriculum, important skills for future practice in the health system.(1,2) An experience such as this one is a fundamental condition to transcend the health student's traditional formation considering that the contact with different cultures enlarges human vision of the others, builds respect and empathy as well as promotes the humanization of thoughts and attitudes.(3) In this sense, every year IFMSA promotes SCORA Exchange, an exchange modality specialized in Sexual and Reproductive Health and Rights (SRHR).

On July 26 and 27, 2020, due to COVID-19 pandemic, the thematic sessions that made up the event's programming were held online, adapted to the reality of social isolation. Thus, the National Member Organization (NMO) of Romania was responsible for maintaining the international student medical experience remotely.

The purpose of this article is to report the experience, as a medical student, of online exchange and the opportunity to develop medical and human skills that could be important for practice in the health system.

EXPERIENCE REPORT

In the beginning, the registration of participants was made via a form and in filling order. From the selection, a WhatsApp group was structured to send all the information related to SCORA Exchange Online. Through this communication channel, the contact between all selected people, natives of different parts of the world, was strengthened, which facilitated the exchange of experiences and fit in as a positive point in order to balance the distance caused by social isolation.

The entire exchange program was composed of 8 hours, divided into 4 daily hours, in order to avoid the exhaustion that full workload in a single day could bring, during which topics on sexual and reproductive health and rights were covered. On the first day, topics that had as their main subject comprehensive sexual education were discussed, covering the local aspect of Romania, and maternal health. On the second day, the content was focused on obstetric violence, abortion and gender-based violence, both in a theoretical and practical context, through teaching related to the medical approach characteristic of attending women who go through these traumatic experiences and reflections on the culture of rape inherent to male and patriarchal society.

The thematic sessions were taught by previously trained NMO students and by two medical school professionals and tutors from the country, all in English and via Google Meet, for the 30 medical students participating

At the end of the event, a quiz was held with questions related to the topics presented to consolidate the learning acquired and all the theoretical material was made available to support the content. Furthermore, the impact evaluation was performed through a Google Forms document with most of the questions being subjective -- to describe how the lectures were received - - and some objective content questions..

REFLECTION

According to Agenda 30, the 3rd Sustainable Development Goal is to ensure a healthy life and promote well-being for all, at all ages through the achievement of health goals.(3) Therefore, SCORA Exchange Online, as an informal component of the student medical curriculum, assists the future professional on improving the numbers that portray health in Brazil through non-measurable items, such as the attitude of academics(4), who were able

to improve the ability to act and think in a critical, reflective and ethically correct way.

Regarding the themes addressed, the event improved the participant's knowledge of sexual and reproductive health, characterized as a cross-cutting competence, defined by Gebbie and Gill as those that transcend the boundaries of specific disciplines and help unify practice in the field of public health.(5) Thus, participants become future professionals capable of approaching this medical specialty in a comfortable and safe way, based on scientific studies and with knowledge about the law surrounding the subject, characteristics that transmit confidence to patients.(6)

Considering that it was performed as an online kind of exchange, some limitations common to this platform presented itself such as complexity of adapting to the chosen system, the reduced comprehension of how much those involved succeeded to participate in the activities and the sensory limitation of the experience.(4)

CONCLUSION

It is concluded that, although it was carried out remotely, SCORA Exchange Online fulfilled its initial proposal to expand the knowledge in SRHR of all those involved, who were able to develop critical and reflective thinking, important for professional practice in the health system. Given the remote component of the experience, it is suggested the application of more diverse strategies, such as a small conclusion project to be presented individually at the end of the experience, in order to ensure the comprehension and participation of those involved despite of the method limitations in future projects like this one. Also, students had the opportunity of acquiring medical skills such as safety transmission during sexual health care through categorical knowledge, including the unique character of obstetric, gender, and abortion violence cases. In this way, the participants could begin to contribute and understand their importance as health promotion agents, even during graduation, promoting the achievement of the Sustainable Development Goals.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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THE MULTIDISCIPLINARITY AS AN INDISPENSABLE APPROACH IN DISCUSSION OF BREAST CANCER: AN EXPERIENCE REPORT

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KEYWORDS: *Patient Care Team; Breast Neoplasms; Health promotion; Primary Health Care.*

INTRODUCTION

Breast cancer is the second most common type of malignancy and the main cause of mortality among women aged 40 to 49 years in Brazil.(1) Thus, it presents itself as a major national public health problem, being currently associated with changes in lifestyle and other inherent risk factors in women's biology such as early menarche, non-breastfeeding and heredity.(2)

In this way, the execution of the project entitled "Toque: uma amor de amor" aimed to promote health education on Breast cancer in a multidisciplinary way, focusing on the prevention of this problem among women, in order to make this target population informed and updated about the aforementioned neoplasia.(3) The objective of this experience report is to discuss the impact of the multidisciplinary approach in the fight against breast cancer in a primary care context.

EXPERIENCE REPORT

The action was divided in a multidisciplinary way contemplating three different undergraduate courses in the healthcare area: medicine, physical education and nutrition; aiming to approach the subject in a dynamic and comprehensive way. In addition, the event was held in two different Unidades Básicas de Saúde (the primary healthcare units in Brazil), given the intention to diversify the public and the impact of the action, comprising women aged 40-60 years. Training on Breast Cancer was offered prior to the execution of the project by the Liga de Saúde da Mulher (Women's Health League) of the university, open to all involved. However, not so much adherence was obtained from the volunteers. Subsequently, health professionals assisted in carrying

out both actions together with the participation of students from the under graduation courses mentioned.

Thus, the project was organized in three correlated moments: initially, with the help of Physical Education students, a dance was promoted with the participants, which sought both the encouragement of physical activity and the fraternization of the moment, the chosen song was "Show das poderosas – Outubro Rosa" which, in a playful way, encourages women to perform the breast self-examination as a preventive way to the neoplasia under discussion (Figure 1). In the second moment, the medical students volunteers presented to the participants information about Breast Cancer related to prevention, factors associated with this problem and common questions related to the oncological routine and the teaching of breast self-examination from an anatomical piece, focusing on methods of early diagnosis of this disease and its consequent prevention (Figure 2). In the third opportunity, the nutrition students were informed about how food can influence the development of cancer, and how to adapt to a healthy lifestyle, answering the questions presented in a dynamic way (Figure 3).

At the end of this activity, an accessible questionnaire was elaborated, since until then there was no knowledge of the educational characteristics of the two communities, and for that reason, the objective was to integrate all the participants. As a result, a questionnaire was applied with non-verbal language represented by "emojis" that expressed feelings related to the opinions of the participants in the action. In this experience, the importance of engagement in the fight against breast cancer was evident with a multidisciplinary approach to promote comprehensive care and make the campaign

more effective and lasting.



figure 1: Physical Education students teaching an educative dance to the participants of the event. Own source.

REFLECTION

The project obtained satisfactory results in guaranteeing health promotion, evidenced by the discussions generated during the activities and by the impact analysis, in which they had many positive evaluations in all three moments, since the applied questionnaires were mostly represented by “happy faces”. This occurred by encouraging the early diagnosis of breast cancer, as well as by orienting its investigation and treatment, along with the encouragement of adequate physical activity and nutrition education to promote a healthy lifestyle in the prevention of this neoplasia⁴, since these factors promote a lower risk of developing this pathology compared to sedentary and obese women.^(4,5)



figure 2: Medicine students teaching women how to perform breast self-examination. Own source.

Finally, given that breast cancer had its incidence increased in the last decade¹, a debate was held that assured familiarization in approaching the topic, in a delicate way among the local population, in order to demystify the taboo and prejudice existing around the theme, mainly related to touch: both performed by professionals in routine exams, as well as performed by the woman herself in self-examination.⁽⁶⁾

No less important, one must consider the limitations of the study in question, such as: the difficulty in approaching this subject in a multidisciplinary way and accessible to the local community, given the depth of the

theme; as well as looking for ways to make explanations more dynamic, aiming not to make them monotonous and the participants to be discouraged with the approach; and also the fact that the students who organized the event did not have access to the monitoring of the women who participated in the event, therefore, not being able to analyze the long-term impact of the action.

CONCLUSION

Given the information exposed, it is concluded, based on the positive reception and cooperation of the local communities present, the importance of a multi-professional approach active in health promotion. Hence, it was noted that this report provides progress in terms of multidisciplinary contact between patients, health students and Family's Health physicians, pointing at restructuring the Breast Cancer approach through an integral view of the patient, being able along with that, represent an incentive for integrative practices in primary care.



figure 3: Nutrition students addressing the importance of a healthy lifestyle in preventing breast cancer. Own source.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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FEMALE EMPOWERMENT IN THE UNIVERSITY ENVIRONMENT: AN EXPERIENCE REPORT OVER FIGHT LIKE A GIRL

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KEYWORDS: Gender-based violence; Personal autonomy; Personal protection.

INTRODUCTION

Despite the profuse achievements that have emerged from the feminist movement in recent decades, multiple collective spheres remain associated with the patriarchalist ideology,(1) opening space for various types of violence - from moral to physical - aimed at women. In this context, the term "fight like a girl" was, for a long time, used in order to reinforce the ideal of fragile sex and to lower the social role of women, which, in the light of the "Girl Power" movement, seeks to reframe from the emphasis on self-valorization and self-defense techniques. In fact, according to data from the organization "Wen-Do Women's Self Defense" in Canada, about 68% of women who defended themselves physically in situations of violence avoided sexual assault.(2)

In view of the unavoidable need to confront gender-based violence, as this is one of the main causes of morbidity and mortality among women(3), empowerment and the fundamentals of self-defense are valuable protection instruments, highlighting the relevance of their dissemination. Thus, this work aims to discuss female empowerment as a mechanism to counter gender violence, reflecting on the legal and health aspects inherent to the extension action "Fight Like a Girl: Be your own heroine".

EXPERIENCE REPORT

The action "Fight Like a Girl: be your own heroine" took place on October 10, 2019, on the National Day of Fight against Violence against Women, lasting four hours, with the participation of 20 women aged 20 to 30 years old, students from different courses at the University. The registration took place through a website created with information about the event, released one month before

the campaign was conducted through social media and posters spread on the University premises.



Photo 1 - All participants in the Fight Like a Girl: Be Your Own Heroine action after the self-defense workshop.

The event took place in three moments: lecture with professor Gynecologist and Obstetrician, which raised discussions about gender violence within the scope of Public Health; lecture with a lawyer, which led to discussions on the legal aspect of violence against women; and practical class with a Muay Thai teacher, who provided basic fundamentals of self-defense in threatening situations. At the end of the action, the impact measurement was done through an online questionnaire available on the website and on the event's social networks, with 2 objective and 2 subjective questions about the participants' experience.

In addition, the campaign had wide repercussions on social media, municipal television channels and university spaces, encouraging the discussion of the theme amongst the community. However, it was observed, as negative points of the experience, the time (from 1:30 pm), which prevented some participants from attending the event due to their classes, reducing adherence. On the other hand, the action managed to fulfill all its objectives, enhancing the personal and academic repertoire of the participants, as they learned about the three aspects:

legal, health and self-defense.



Photo 2 - Photo during the self defense workshop in the Fight Like a Girl: Be Your Own Heroine action.

REFLECTION

The responses to the questionnaire proved to be 100% positive, as indicated by the analysis made by the "Google Forms" platform itself, obtaining reports such as "after all self-defense is a form of empowerment" and "knowledge in the health and legal areas impact on my role as a citizen and future medical professional".

Due to the current sexist and cruel culture, many women are trapped in abusive and violent relationships, especially because they tend to feel guilty and submissive⁴. In this bias, the existing mechanisms in society that make it impossible to leave a violent relationship are diverse, ranging from low self-esteem to economic difficulties, among other factors.⁽⁴⁾

In this context, violence by an intimate partner, within the domestic environment, is the most prevalent form of violence against women.⁽⁵⁾ This situation is masked and intensified when these women are forced to live even more closely with their violent partners, as in the current pandemic context caused by Sars-CoV-2, whose recommendation of home isolation to control the spread of the disease exposed them to a greater risk of suffering violence.⁽⁶⁾ This fact, however, can be mitigated, although in a palliative way, by self-defense and greater knowledge about their own rights and how to access them.

In this sense, actions that promote empowerment and self-preservation are presented as liberating mechanisms, capable of promoting a feeling of self-sufficiency and, consequently, a reduction of fear for coping with risk situations. Thus, there is the creation of a female support network, through which not only knowledge is disseminated, but also sorority, a fundamental practice

among women in the struggle for a society free from oppression.⁽⁷⁾

In addition to these issues, it is clear that women who experience violence have greater difficulty in taking care of themselves, pointing to violence as an indicator of vulnerability in a wide range of health issues.⁽⁸⁾ Thus, based on the perspective that everyone has the right to be free from violence and coercion,⁽⁸⁾ there is a need for these concepts to be dominated by women, in order to break this harmful cycle for so many lives.

That said, through the action developed, the participants were given a greater sense of self-sufficiency and an opportunity to search for knowledge related to gender violence (as demonstrated by the statistics collected), in its various spheres, which may come to assist them in various situations, including in the world context of greater domestic isolation mentioned above.



Photo 3 - The organizing committee and some participants in the Fight Like a Girl: Be Your Own Heroine action.

CONCLUSION

It is concluded that female empowerment, sorority and self-defense are significant ways to face situations that relate to gender violence, since they enable the search for rights and protection, with knowledge and self-care being key parts in this. struggle that takes place in multiple environments. In this sense, it is understood that the activity in question was of great impact to the participating women as it provided important knowledge in the spheres of personal security, rights and women's health. In the meantime, it is suggested that other universities can carry out similar actions, adding to them greater dissemination, disseminating the construction of a more equitable and safe university space. It is noteworthy that this work in question began to be written at the beginning of the year, but, with the stop of presential academic activities, the meetings for its conclusion could not be carried out, delaying its progress.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

There was no funding.

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EXPERIENCE REPORT: I HUMAN SEXUALITY SEMINAR - HUMAN SEXUALITY AND ITS REFLECTIONS IN THE GRADUATION CONTEXT

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KEYWORDS: *Sexuality; Education; Medical students.*

INTRODUCTION

Defining sexuality is not usually a simple task, as it is a multidimensional issue that has direct cultural, social, personal and historical factors.

Sexuality is an important area of study, which is constantly treated as a taboo and limited only to human reproduction and genitalia.(1) Despite this, this is an extremely broad subject that covers sex, such as gender identities, sexual orientation, eroticism, pleasure, human reproduction and anatomical knowledge, in addition to being considered an essential condition of human beings.(2)

The expression of sexuality is imposed since adolescence and influences throughout life according to the stimuli and information that the brain receives and interprets on this subject(3) Although sexuality is directly related to sexual health, to be achieved, it needs human rights to be guaranteed, such as: equality, non-discrimination, privacy, social security, marriage, free authorization, information and freedom of opinion.(2)

Thinking about the importance of the theme and that it is still a neglected subject in the academic scope and that the realization of the 1st Human Sexuality Seminar - "Human Sexuality and its Reflections in the Context of Graduation" was developed, with the intention of deepening these concepts and enabling a broad discussion of all aspects that involve human sexuality, such as the physiological, emotional, psychological and social components involved.

Therefore, enabling undergraduate medical students to know and discuss, more and more, about human sexuality in all its aspects, enhances the demystification of certain taboos and allows future professionals to approach in a more natural way and cover this topic with their patients.

Therefore, in this work we aim to report the experience lived by medical students, about an activity performed remotely on Human Sexuality, and to allow this activity to be replicated and improved by other students.

EXPERIENCE REPORT

The 1st Human Sexuality Seminar was organized by students in the 6th and 8th semesters of Medicine, in conjunction with the Academic League of Gynecology and Obstetrics at the University. 17 people between 20 and 31 years old participated in the activity, being students from the 3rd to the 10th semester of the medical course. The event was held online, through the Zoom platform, due to the COVID-19 pandemic.

The event took place in two meetings, lasting two hours and thirty minutes, the first day with the theme "Sexual orientation: coming out of the closet and the effects on mental health" with the presence of the psychiatrist Dr. Bruno Branquinho and the second day with the theme " Human sexuality: cycle of sexual response and sexual dysfunctions " with gynecologist, obstetrician and sexologist Dr. Rayanne Pinheiro.

On the first day, before the start of the broadcast, we had problems connecting to the internet, which caused a delay for the beginning of the lecture, culminating in a high anxiety among the organizers, since the speaker and the listeners were already waiting. However, we were able to solve it as quickly as possible because all the organizers were attentive and working together, which made the event happen without further complications.

During both activities, questions emerged among the participants about the themes, allowing reflections and learning about the theme. The organizers also elaborated key questions, about the themes to instigate the participation of the subscribers.

To identify the impact that the activity caused on learning and also, the satisfaction of the listener, a form was elaborated to be filled in two stages: the first with questions that evaluated the previous knowledge on the theme, at the beginning of the activities, and the second at the end of the activity, identical to the first to quantify the knowledge acquired.

It was possible to verify a positive impact with the responses, once assertions were identified in the second form, for example: "I thought that sexuality could cover much less broad topics than I managed to learn in these two days of the event, it was like leaving the box, surreal", and also a quantitative increase in the questions related to the acquisition of knowledge. The construction of closed questions allowed a better graphic analysis between the answers and the open one, it allowed the assessment of the perception of the event.

Finally, the event allowed reflections on human sexuality in an academic context, which enabled the acquisition of knowledge, in addition to breaking taboos and identifying stigmas and prejudices that contribute to the high rates of violence and intolerance associated with this theme.

REFLECTION

This being a broad and complex topic, it was possible to integrate several concepts that cover Human Sexuality during the discussions and enrich them even more. In addition, through the impact assessment of the activity, it was possible to notice satisfactory results and a positive evaluation by the subscribers. And in this way it was realized that the performance of the activity was important for opening spaces that enabled debates and reflections on the theme.

It was also possible to note that during the meetings there were personal reports that helped to break paradigms and eliminate taboos for these participants. This activity was important for medical students since, according to the literature, a deficiency among physicians in addressing patients' sexual and reproductive health is observed.

Approximately 50 to 72% of Brazilian doctors do not regularly investigate the sexual health of their patients, as they do not consider themselves able to address and treat sexual dysfunctions⁴. In addition, it is important that all doctors provide comprehensive and humanized care in even more delicate contexts, such as patients who are victims of sexual abuse, the LGBTQIA + population and patients with indication for legal abortion.⁽⁴⁾

Therefore, it is extremely important to train these skills in the academic environment. Bringing these reflections into the academic context, allows a broader view of the

student on the subject, avoiding possible stigmas and prejudices in their medical practice, thus ensuring the guarantee of rights.

CONCLUSION

The activity carried out online implied some limitations, for example, less interaction between the participants of the event, but despite this, it was possible to produce good discussions between them. As a future proposal, we suggest that this activity be carried out in person in order to deepen the relationships and discussions between the participants. In addition, the proposed objective of reporting the activity has been achieved and, based on this experience report, it is desired that this activity be reproduced and improved by other committees or stakeholders.

Therefore, we consider this proposal for extracurricular activity to be very positive and fundamental to provide greater knowledge acquisition and expand the training of differentiated medical professionals. These professionals, capable of changing a reality and providing adequate reception and humanized care to the population, especially those with greater vulnerabilities.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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IMPORTANCE OF THE DEBATE PROMOTION ON MATERNAL HEALTH AND ABORTION: EXPERIENCE REPORT

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KEYWORDS: Maternal Mortality; Pregnancy; Professional Training; Public Health.

INTRODUCTION

Abortion is a major cause of maternal mortality and has the highest rates in developing countries.(1) In the world, between 2010 and 2014, it is estimated that 15 million single pregnant women had abortions each year.(2) In Brazil, a country where this practice is legally permitted in cases of rape, fetal anencephaly, or risk of maternal life,(1) in 2019, there were more than 180 thousand cases of hospitalization for abortion-related procedures registered in the Hospitalization System of Brazilian Ministry of Health.(3)

This topic, although widely discussed for decades, still represents a persistent public health problem especially associated with the ineffectiveness of health action strategies, such as those of family planning, and faces dilemmas, such as religion and morals, that interfere with access and quality of care.(1,2,4) In legally permitted cases, women deal with care denial justified by moral divergence, in addition to the lack of infrastructure and the strengthening of public policies.(4) In illegal conditions, on the other hand, strengthened by socioeconomic inequality, prohibitive legislation, and a deficit in sexual and reproductive assistance, millions of women seek clandestine clinics and face a higher risk of complications from hemorrhage, infection and death.(4)

In all circumstances, abortion demands advances and strategies to face barriers that interfere with access and quality of care, as well as those that promote its maintenance among the main causes of maternal death.(4,5) In the context of promoting the discussion of this topic, an event was held for debates on the various related challenges, between academics and professionals. Therefore, this article aims to report the experience of holding this event and the importance of it and the promotion of future events related to maternal health and abortion.

EXPERIENCE REPORT

"We need to talk about maternal health and abortion" was an action carried out in May 2020 on the virtual platform Free Call Conference with 241 participants from several undergraduate courses. It consisted of two talks: one about abortion focusing on the biological, and legal scope, which highlighted the different forms of this obstetric complication and explained about contraceptive methods and the legal aspects about the practice of abortion, taught by Dr^a Jacqueline Mazzotti, who is specialized in gynecology and obstetrics; while the other dealt with a discussion directed at the psychological and socioemotional aspects of abortion, or the difficulty of access to it, in women's health, with medical students Rebeca Duarte de Almeida Reis e Sarah Souza Marques, trained by the Workshop on Maternal Health and Safe Abortion (WOMAN) held on Fortaleza/CE in September 2019 and organized by IFMSA Brazil and IPAS.

During the event, participants were divided into groups in the mobile app WhatsApp, for reading and discussing cases and later presenting the conclusion taken by each group. Finally, there was a question session, in which the participants were able to resolve any doubts. In addition to the above, it was an action aimed at facilitating students' access to the topic addressed in a clear, didactic and costless manner, with the help of active methodologies so that the participant was the main agent in the construction and subsequent application of knowledge.

REFLECTION

In Brazil, abortion is still an important public health challenge stigmatized, little debated, excessively neglected and a reflection of care deficits.(6) On this topic, the event promoted debates from different perspectives: legal, epidemiological, scientific,

psychosocial and maternal emotional, with a wide approach in clarifying the scopes to which abortion concerns, whether they are political, social or personal.(5)

Women, even if protected by law, when they choose to terminate their pregnancy, are subjected to moral judgment, constraints and, with that, their human dignity is disrespected, violating a foundation of the Democratic Rule of Law provided for in the Federal Constitution (CF / 88 , art 1, III).(6) This, added to other conditions, such as unwanted pregnancy or adolescence, and the ineffectiveness of prohibitive legislation in reducing abortion rates, promotes an increase in the mortality of women due to the search for clandestine clinics and poorly performed procedures.(5,8)

The World Health Organization says that each of the approximately 47000 deaths and 5 million physical and mental disorders resulting from unsafe abortions could have been prevented through sex education, family planning and access to legally induced abortions and safe.(9)

In this perspective, this action managed to achieve its objectives with regard to participants, through discussions and the promotion of reflection on the importance of women's sexual and reproductive rights, the right and access to health services, and the need for humanized and quality care in an abortion situation. In addition, among the organizers, there was an advance in knowledge on the subject and strengthening on the importance of this action and health education strategies for the dissemination of information on the various factors related to abortion and for the training of sensitive and qualified professionals.

For the continuous confrontation with this important public health challenge, it is necessary to carry out other educational actions that also reach individuals of different levels of educational background and, therefore, go beyond the borders of the university.

CONCLUSION

The debate on this issue promotes the importance of maintaining women's sexual and reproductive rights and respecting the principle of human dignity. Besides, it promotes the need for professional training to face the demand for unsafe practice and to reduce maternal mortality rates due to this cause. In this action, the realization on an online platform allowed the reach of a national audience, with greater dissemination of information. Debates on abortion and maternal health must be held continuously to maintain access to qualified care, to promote women's sexual and reproductive rights and to combat factors associated with mortality.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

FINANCING

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TREATMENT OF HIV IN BRAZIL: A NARRATIVE REVIEW OF THE LAST 5 YEARS

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INTRODUCTION

The Acquired Immunodeficiency Syndrome (AIDS) was first recognized at the end of the 20th century and is the clinical manifestation of advanced stages of Human Immunodeficiency Virus (HIV) infection, a cellular immunity disorder, with consequent susceptibility to opportunistic infections and neoplasms.(1)

HIV has several forms of transmission, such as condomless sexual intercourse; vertical transmission during pregnancy, childbirth, or breastfeeding; inadequate handling of biological materials; use of contaminated sharp materials, or blood transfusions.(2) Although widely known, HIV transmission is still neglected by a considerable number of Brazilian citizens, reflected in the occurrence of new cases every year. In 2018, 43,941 new HIV cases and 37,161 AIDS cases were reported in Brazil. The 2018's detection rate was 17.8/100,000 inhabitants. From 1980 to June 2019, 966,058 AIDS cases were detected in the country.(3)

Since the first HIV case was confirmed, several advances have been made. One of the main advances in the treatment was the use of a combination of antiretroviral drugs to compose the antiretroviral therapy (ART). Pharmacologic and clinical research provided the emergence of new drugs. Treatment options were expanded in search of more potent drugs, with less adverse effects, less pill burden, and with new mechanisms of action.(4) The use of combined antiretroviral drugs and the simplification of suggested regimens was possible and had a major impact on patients' therapeutic response.(5)

Another milestone in the treatment of HIV patients was the institution of early ART. At the beginning of the HIV epidemic, people living with HIV (PLHIV) were mainly diagnosed in advanced stages of immunodeficiency, with

few therapeutic options and high morbidity and mortality associated with the infection.(6)

Thus, in this context of rapid changes in the treatment of HIV infection, this review was carried out, aiming to show what is changing in HIV therapy, addressing how treatment with ART has been in the last five years (2015-2020), and comparing parameters observed in different studies, the best time to start treatment and how many and which drugs are currently showing results in PLHIV in Brazil.

METHODS

This article is a descriptive literature review. Databases used in the bibliographic search were the Biblioteca Virtual de Saúde (BVS), Scientific Electronic Library Online (SciELO) and Business Source Complete (EBSCOhost).

Original articles, including those in a foreign language, addressing PLHIV treatment in the general population in Brazil, published from 2015 to 2020, were included. The search keywords were "HIV", "antiretroviral therapy" and "treatment".

Articles discussing ART in specific populations or association with other diseases' therapies, such as Tuberculosis, and approaching treatment adherence or HIV antiretroviral resistance only were excluded.

The initial database search resulted in 28 articles; 24 from EBSCOhost, 2 from SciELO, and 2 from the BVS. After applying inclusion and exclusion criteria, only 7 articles were selected for this review.

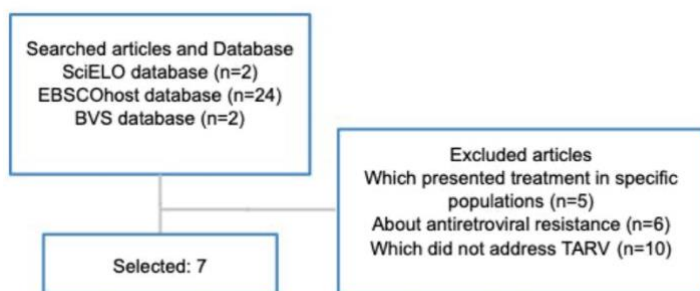


Figure 1. Flowchart with the selection of the articles. (Own source)

RESULTS

An important point discussed in two of the selected articles was the ideal time for PLHIV to start ART.

One of the studies showed that early ART initiation (with TCD4 lymphocyte count (LTCD4) > 200 cells/mm³) doubles the chance of virological control in 12 months, with 83% of patients presenting LTCD4 > 200 cells/mm³ and 73% reaching undetectable viral load at the end of that period. Patients who started ART with LTCD4 ≤ 200 cells/mm³ had twice the risk of death or virological failure when compared to those who started with higher LTCD4.(7)

Similarly, Pacheco et al. (2019) showed that most people who were started on ART with LTCD4 < 200 cells/mm³, some even showing AIDS-defining diseases, did not obtain a satisfactory response when compared to those who started at an early stage of the disease. They also had a high viral load at the beginning of treatment, with 38.8% having a count of 100,000 copies/mL or more.(8)

Another important aspect discussed in three articles was the number of drugs used to compose ART.

One of the studies showed that monotherapy using Zidovudine in women in labor was associated with resistance mutations and, therefore, should not be recommended, even in this circumstance. The authors also observed an increased risk of mutation and consequent resistance to ART with the triple association of nucleoside analog reverse transcriptase inhibitors (NRTIs).(9) Furthermore, Giron et al. (2019) showed that treatments that inhibit two different phases of the viral replication cycle are more effective compared to those that inhibit only one phase.(10)

Another study evaluating the effectiveness of treatments using 3 or more medications, showed that the regimen using 3 drugs had greater immuno-virological success. However, a relevant point raised by the authors is that, in the group of patients using 4+ antiretrovirals, the majority already showed signs of advanced HIV infection and a history of first or second-line treatment failure.

Considering these facts, the authors found that it can be assumed that patients using 4+ drug regimens were more predisposed to treatment failure because of antiretroviral resistance. The authors conclude that the use of four or more drugs should only be applied to patients who were already on ART and had failed virological control due to high resistance to antiretrovirals.(7)

In the four articles that analyzed the best combination of antiretrovirals classes to be used, different results were observed.

Meireles et al. (2018) compared the effectiveness of various initial therapy regimens. The authors concluded that, although treatment with both non-nucleoside reverse transcriptase inhibitors (NNRTIs) and ritonavir-enhanced protease inhibitor (PI/r) was equally effective and achieved virological control, the least amount of pills was a determining factor in adherence to ART.(11).

In a study that assessed the response to ART in Brazil between 2014-2015, the authors compared the regimens using: 2 NRTI + 1 NNRTI, 2 NRTI + 1 PI/r, 2 NRTI + PI without ritonavir enhancement and 1 NRTI + 1 PI/r, with Atazanavir with ritonavir (ATV/r) being the most common PI/r. Patients who used PI without ritonavir were less likely to suppress HIV viral load. The group that had the best adherence used an NNRTI-based scheme. The authors argued that this is possibly due to the greater number of pills in schemes with PI/r (six or more) when compared to schemes with NNRTI12. Giron et al. (2019), in a study that compared the combinations ITRN + ITRNN and ITRN + PI/r, found that the first scheme was only superior due to better adherence, which corroborates the findings of the previous article.(10)

Some authors have also carried out comparative studies of the efficacy of regimens with the combinations of 2 NRTI + 1 integrase inhibitor (Tenofovir (TDF) + Lamivudine (3TC) + Dolutegravir (DTG)) and 2 NRTI + 1 NNRTI (TDF + 3TC + Efavirenz (EFZ)). Both observed that regimens using DTG were more successful in viral suppression, with less cumulative viremia.(12,13) In one of the studies, the authors also included a comparison group that used TDF + 3TC + ATV/r, concluding that the cumulative viremia was even greater when compared to the scheme containing EFZ.(13)

DISCUSSION

Regarding the ideal time for ART initiation, there was a consensus among the authors. Early ART increased the chance of successful virologic suppression, as shown by Silveira et al. (2016).(7) Pacheco et al. (2019) concluded that late ART onset generally occurred in a context of high viral load, which was associated with increased morbidity, mortality and viral transmission.(8) In these studies, the

late onset of ART was related to a late diagnosis of HIV infection.(7,8)

Many studies corroborate the early onset of ART, some address issues that go beyond reducing mortality. Cohen et al. (2016) concluded that early ART is important to reduce HIV transmission.(14) In addition to the considerable reduction in mortality, it is an important tool in improving the quality of life with less occurrence of complications and rapid resolution of immunosuppression.(15-17) This highlights the importance of programs that encourage and facilitate early HIV diagnosis.

Three studies addressed the number of drugs used to compose ART. In summary, monotherapy and the use of ART schemes that inhibit the same stage of the HIV replication cycle should be avoided.(9,10) Also, the use of four or more antiretroviral drugs should only be indicated in the treatment of highly resistant HIV.(7) Despite this, some authors have observed that, even in these patients, the use of simplified regimens would have benefits with fewer adverse effects, provided that the drug suppressed from the regimen is an NRTI.(18)

Currently, the official recommendation of the Brazilian Ministry of Health includes three drugs (TDF + 3TC + DTG) as the initial preferential treatment. If the use of DTG or TDF is contraindicated, other antiretrovirals must be added to maintain a three-drug regimen. This recommendation for triple therapy also applies to therapy for HIV-positive pregnant women.(18) However, currently, there is evidence in the world literature that it is possible to start ART with two drugs, which are potent drugs, with a high resistance barrier, preventing the emergence of antiretroviral resistance, providing long-term therapy and high efficacy.(20,21)

In this review, four studies analyzed different combinations of ART. Schemes composed of 2 NRTI + 1 NNRTI were considered to be greater than 2 NRTI + PI/r in two studies. The authors concluded that patients with NNRTI-based regimens were more likely to adhere to ART due to the lower pill load.(10,12) However, the use of EFZ, an NNRTI, has been associated with greater cumulative viremia.(13) Some authors concluded that regimens containing DTG were efficient in suppressing viral load.(12,13)

In 2018, however, the Brazilian Ministry of Health guideline recommended the use of a scheme containing integrase inhibitors, more specifically DTG, as the preferred one.(18) This change was justified by the DTG capacity of faster HIV viral load reduction when compared to other drugs previously recommended (EFZ and ATV/r). Also, there is a lower incidence of adverse effects and

lower pill burden with regimens using DTG, which favors patient adherence to ART.(22)

Treatment adherence was highlighted in all articles. Some authors suggested that It should be considered a factor as important as antiretroviral drugs potency in ART. (10,11)

Besides, adherence barriers, such as substance abuse, depression, the occurrence of adverse effects, and high pill burden can interfere with antiretroviral intake, leading to ART failure.(23,24) Therefore, it is essential that, when planning to start ART, the number of daily doses, the pill burden, and the occurrence of adverse effects are always considered.

In summary, it was found that ART should be started as early as possible, ideally with an early diagnosis. Drugs that act on two different parts of the virus life cycle should be used. The most effective treatment for ART initiation, which is also recommended by the Brazilian Ministry of Health, was TDF + 3TC + DTG, which should be used as the first line therapy whenever possible.

The present study had some limitations. Despite the use of several descriptor terms in the search, was found scarcely any national literature addressing the subject studied. Besides, the methodological variety of the selected studies made it difficult to compare them critically.

CONCLUSION

This review about HIV treatment in the last five years in Brazil has shown the importance of ART improvement over the years as to a better patient prognosis. The alliance between early diagnosis and good adherence to the recommended treatment is the pillar of the presented situation, suggesting that the maintenance of financial support by the public health agencies in this regard is an important and strategic measure. Over the past five years, the development of drug understanding, the evolution of drug combination therapies, in addition to the alternative interventions that are emerging, emphasize the need for research on the treatment of HIV/AIDS.

CONFLICT OF INTEREST

There were no conflicts of interest throughout the development of the article.

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