Knowledge of Young Schoolchildren about Coronavirus via Web Radio: Connections with the Florence Nightingale Environmental Theory

Saberes Juvenis sobre Coronavírus mediados na Web Rádio: conexões com a Teoria Ambientalista de Florence Nightingale

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ABSTRACT
Describe the knowledge of youths about Covid-19 mediated on the radio web locating connections with Florence Nightingale's Environmental Theory. **Methods:** Exploratory and descriptive research with a qualitative approach carried out with 60 young students who produced questions-speeches about Coronavirus, with mediations on the web radio, which were analyzed by Thematic Analysis. **Results:** categorical syntheses: prevention and inquiries about Covid-19, with emphasis on transmission, treatment and prevention of the pandemic. **Conclusion:** Virtual communication, as a web-based nursing education, aroused in young people reflections on self-care against the Coronavirus, and their knowledge found resonances and connections with the bases of Florence Nightingale's Environmental Theory, as they ratified the statements of modern science knowledge throughout the human history, updating them on this scale of the past in the present.

**Keywords:** School, Students, Nursing, Radio, Coronavirus.

RESUMO
Descrever o conhecimento de jovens sobre Covid-19 mediado na web de rádio localizando conexões com a Teoria Ambiental de Florence Nightingale. **Métodos:** Pesquisa exploratória e descritiva com abordagem qualitativa realizada com 60 jovens alunos que produziram perguntas-discursos sobre Coronavírus, com mediações na web rádio, os quais foram analisados por Análise Temática. **Resultados:** sínteses categóricas: prevenção e indagações sobre a Covid-19, com ênfase na transmissão, tratamento e prevenção da pandemia. **Conclusão:** A comunicação virtual, como um ensino de enfermagem baseado na web, despertou reflexões nas jovens sobre o autocuidado frente ao Coronavírus, e seus saberes encontraram ressonâncias e conexões com os fundamentos da Teoria Ambiental de Florence Nightingale, ao ratificarem os enunciados da ciência moderna, conhecimento ao longo da história humana, atualizando-os nesta escala do passado no presente.

**Palavras-Chave:** Escola, Estudantes, Enfermagem, Rádio, Coronavírus.

1 INTRODUCTION
Coronavirus (Cov) belongs to the *Coronaviridae* family and causes a respiratory disease, named Covid-19. Corona Virus Disease (Covid-19) is the disease and not the virus, and “19” represents the...
year of its emergence: 2019. Identified by the China Disease Control and Prevention Center in December 2019 as the cause of an outbreak respiratory disease, was first detected in Wuhan\(^{1-2}\).

The World Health Organization (WHO), on January 30th, 2020, declared the Corona Virus epidemic as a Public Health Emergency of International Interest. On February 11th, 2020, WHO announced a name for the disease: Covid-19. The virus was registered by the International Virus Taxonomy Committee as SARS-CoV-2, in view of the similarity of the new virus with the CoV that causes Severe Acute Respiratory Syndrome (SARS-CoV), identified in 2002\(^{3-4-5}\).

The first case of Covid-19 in Brazil, had its diagnosis confirmed by the Adolfo Lutz Institute, in February of 2020. The case refers to an infected patient during a visit to the region of Lombardy, Italy. In Ceará, until March 26th, 2020, 4,605 cases were notified, of which 238 (5.2%) were discarded, 4,129 (89.6%) were under investigation, 238 (5.2%) were confirmed in seven municipalities, with three deaths occurring\(^{6-7}\).

On the internet, several sites and social networks (WhatsApp, Facebook, Instagram, Twitter and others) have influenced, mainly, the speed of the information. However, it is necessary to be careful with fakenews (false news). Thus, strategies are needed to ensure that the information on the types of health action, disseminated through the digital channels accessed by the population, are true. And not just in its contents; one should also check that the sources are reliable. In this scenario, the role of the nurse in primary educational care in Primary Health Care in Brazil stands out.

In nursing, computer technology connected to the internet is used in care assistance, with an emphasis on the nursing process, promotion, rehabilitation, prevention and cure. Adding to the popularity of digital technologies with communication devices, it is a privileged space for relationships and bonds with the population, more specifically, for this research\(^{8}\).

In this sense, reference is made to the knowledge systematized by Florence Nightingale, in the 18th century, when she related the patient's health conditions to environmental factors\(^{9}\). Thus, the "Lady of the Lamp" proved that the individual's natural defenses are influenced by a healthy environment or not, with a strong affect on conditions external to the development of human life\(^{9}\). Thus, this work sought to resonate with the knowledge prescribed in this theory in the knowledge produced by youths about Coronavirus, mediated on the web radio, a communication channel on the internet, articulated between the Youth Association of Irajá and the Laboratory of Collective Practices in Health of the State University of Ceará\(^{10}\).

The anchor program is “Em Sintonia com a Saúde” (In Tune With Health), which prioritized the problematization of the knowledge that underlies the educational care of nursing and public health
among the youths of public schools in Ceará (10). The content of the communication conveyed with asynchronous and synchronous interactions in this web radio program elected “Prevention of Coronavirus” as the generating axis of cyberspace dialogues, since this population was in a situation of social isolation due to the pandemic caused by the virus. Thus, the driving force for sharing this knowledge among youths was configured as actions to stimulate the promotion, prevention and reduction of the risk of contagion by Covid-19.

Preventive actions to Covid-19, carried out with youth in schools, were made possible by interactions on the website of the online channel, available on the internet, as content for communication and health education, alerting the youth students about the relevance of the school community's engagement in prevention of this pandemic, however, bearing in mind that young people access cyberspaces on the internet with content, often with unreliable information. It is noteworthy that, in the current scenario, the fluidity of mediated communication in the virtual world presented several narratives that address the daily lives of these subjects, producing new aesthetics of life.

Therefore, the use of the web radio was used as a way to transmit scientific knowledge online with school youths in social isolation. In this perspective, it was questioned: are school youths oriented on Covid-19? What is your knowledge about measures to promote, prevent and control this pandemic? Do your knowledges, through your discursive statements, have resonances and connections with those of modern science, which founds scientific knowledge and the Environmental Theory of Florence Nigthingale of the 19th century?

2 OBJECTIVE

Describe the knowledge of school youth about Covid-19 mediated on the web radio, exploring its connections and resonances with Florence Nigthingale's Environmental Theory.

3 METHODS

3.1 ETHICAL ASPECTS

The research is part of a project: “Use of Web Rádio in health education and care: experimenting with communication and health education strategies with youth”, and meets Resolution 466/12. The research was approved by the Research Ethics Committee of the State University of Ceará.
3.2 THEORETICAL-METHODOLOGICAL FRAMEWORK

The assumptions of Environmental Theory\(^9\) and Thematic Analysis\(^{11}\) were used. In 1859, Florence Nightingale presented her environmental theory based on the environment, according to which, all external conditions and influences affect the life and development of the organism and are capable of preventing, suppressing or contributing to disease and death\(^{12}\).

The Thematic Analysis technique consisted of discovering the nuclei of meaning generated in virtual communication, whose presence or frequency meant and gave meaning to the analyzed object. For an analysis of meanings, the presence of certain themes denotes structures of relevance, reference values and behavior models present or underlying the discourse\(^{11}\).

3.3 TYPE OF STUDY

Exploratory-descriptive research, with a qualitative approach. This type of approach focuses on the subject studied, on social conditions and class determinations, their beliefs, values and meanings\(^{11}\).

3.4 STUDY SCENARIO

Research carried out in the virtual cyberspace of the web radio, having as a connection the dialogical interactions produced as communication content of the Program In Tuning With Health (S@S), bonding with the young students in the school territories of Ceará, Brazil. The program is aired on the digital channel website with production centralized in the studio at the University in Fortaleza / CE, interconnecting six cities in the south, center-south and north regions of the state.

The health communication contents of the digital channel are diversified and demanded by suggestions from the school's youth audience, selected to be included in the annual programming guidelines. They are part of the communication process on the web radio source with expertise in different areas of health and education and privileging themes such as: viruses, sexuality, genders, pregnancies, cultures, Sexually Transmitted Infections, violence, bullying, and others\(^{8}\).

Activating the communication process, in the studio, messages are triggered with interaction of the subjects in their school territories, and mediation is performed by one member of the production and coordination team of the research, extension and teaching project, composed of professors and undergraduate students in nursing and the Postgraduate Program in Clinical Care in Nursing and Health at the State University of Ceará. It is noteworthy that, when receiving the content of the program in schools, there are mobilizers and teachers from basic education, who facilitate access and mediation of the questions of young people in the circular movement - synchronous and asynchronous - which is
constructed as a spider web of knowledge generated by University researchers in connection with the
knowledge of immanence produced by school subjects.

In the dynamics of mediated interactions in the digital world, the studio team with an
“announcer”, who interviews the guest, and the student monitors, who operate various communication
deVICES. Webcam, software, in the form of digital applications, enter the scene. Facilitate the circulation
of images and audios made available on the radio website and reflected on the channel’s social networks
on the Internet.

The mobilization of program content on social media, such as YouTube, WhatsApp groups,
Facebook and Twitter, facilitates the feedback of communication that reaches directly to school spaces
- classrooms and/or auditoriums - where youth are organized, interacting through from their mobile
deVICES and/or the computers made available for their participation in the program, which also make it
possible to send questions, which are synthesized as disruptive knowledge of ways of life in school
living territories.

The program that served as the basis for this research was carried out in March 2020 and had
the participation of 60 young people from two public schools in Sobral, Ceará, with the theme:
Coronavirus or Covid-19: knowing to prevent. The participating students were those from the first
scientific year and were aged between 14 and 15 years. It is worth mentioning that, during the
production of the program, the anchor question was launched, “Mention a measure to prevent Covid-
19”, which constitutes a device of knowledge and power, stimulating youth narratives, which are taken,
for the purpose of analysis, as “question-speeches”, which are discursive practices of school youths
that engender the care of the self generated in the virtual communication that is redesigned and
announces new ways of care, that is, the web care of nursing and health.(10)

However, there is a shift in formatting the production of weekly programs on the online channel
as re-designs of the functions of each producer and/or territory mobilizer, a limitation imposed by the
pandemic and its effects with disciplinary practices of social isolation to contain the advance of the
virus in the general population. Therefore, it migrated to virtual applications, which facilitate the
porosity and deterritorialization of communication and health education made available on the radio
website, www.uece.ajir.com.br, and/or on social networks on the Internet.

3.5 DATA COLLECTION AND ORGANIZATION

The speech-questions constitute the discursive devices of immanent knowledge and power that
announce self-practices in the school context(8) and were collected through WhatsApp groups, in the
postings in the interactions in the program, recorded automatically. The information was transcribed as empirical material of the study.

To identify the participants and their questions, Young 1, Young 2 ... Young 60 was used. The option for youth terminology is related to the approaches of youth cultural studies, as they express the diverse ways of life of this population \(^{(8,13)}\).

3.6 DATA ANALYSIS

Supported by Thematic Analysis\(^{(11)}\) and in the possible connections and resonances, with the knowledge of Nightingale's Environmental Theory\(^{(9)}\), content analysis articulates the surface of the texts described and analyzed with the factors that determine their characteristics: psychosocial variables, cultural context and message production process\(^{(11)}\) and has three phases: exploratory phase, in which the object of study matures and delimits the research problem; data collection, in which information is collected that respond to the problem; and, of analysis, in which the treatment is done, by inferences and interpretations of the data. It is also classified as expression, relationships, thematic assessment and categorization (TAC)\(^{(11)}\). The TAC proposes to “discover” the nuclei of meaning that make up a communication whose presence or frequency means something about the analyzed theme, through the interpretation of empirical data.

TAC works in stages, by dismembering the text into units and into categories for later analytical regrouping as textual syntheses\(^{(11)}\). The categories were grouped by thematic affinity and were summarized as TAC: 1) Youth knowledge about Covid-19 prevention; and, 2) Youth inquiries about Covid-19.

To tangent the youth knowledge produced in mediation on the Web radio about Covid-19 and make the historical turn of modern science in relation to the systematized knowledge in the 19th Century, as possibilities of connections and resonances with Florence Nightingale's Environmental Theory is not the easiest analytical task. However, it is understood that Modern Nursing is based on its theoretical training the development of the scientific method as an inductive force in social relations, above all, in effect, fragmented that structured the relations of the economic production system in force in England, in the 18th Century, with the apogee of industrial capitalism. With this methodological knowledge, she analyzed how these contemporary knowledges, in the middle of the Coronavirus pandemic, find resonance and connections with those systematized by Ninthingale in the 19th Century, which constituted themselves as a model of nursing education for the modern world.
4 RESULTS

Youth knowledge about Coronavirus finds resonances and connections with Florence Nightingale's Environmental Theory, as it updates the knowledge of biological science through its question-speeches mediated on the web radio.

4.1 KNOWLEDGE ABOUT THE PREVENTION OF COVID-19

The anchor question (AQ), launched at the beginning of the program, marked the beginning of interactions between youths and the professional interviewed: “Mention a preventive measure to Covid-19”, answered by 25 of the 60 participants. 13 mentioned Covid-19 prevention measures as hand washing and the use of gel alcohol (hand sanitizer); seven aimed to avoid crowds of people; two mentioned the use of protective masks and three referred to home isolation, which are listed as question-speeches (QS):

- Use of 70% alcohol gel. (Young 2)
- Social isolation and avoiding crowds. (Young 5)
- Wash hands; wear protective masks properly; check your temperature regularly; avoid large crowds and never touch your face with dirty hands. (Young 10)
- Avoid agglomerations; do the cleaning; if you have symptoms; look for a specialized professional and take the necessary measures. (Young 21)
- Wash hands; keep a distance of 1.5 meters from other people and increase immunity. (Young 46)
- Wash your hands with soap and water often. (Young 49)
- Wear protective masks; when coughing or sneezing, use tissues and then put away in the trash or cover your mouth and nose using your arms; avoid greetings with hugs, handshakes and kisses. (Young 55)
- Avoid visits if you have the flu. (Young 58)

This thematic category, merged by the synthesis of the QSs, makes it possible to understand that the knowledge of the program participants on the web radio reproduces the set of these knowledge, considering that the guest certainly brought, to discuss the theme, the various knowledge of the basic sciences, with a central role in infectious diseases and, also, in actions directed by the official government agencies for the prevention of Covid-19, since the pandemic still registered few cases in the Brazilian population.

4.2 INQUIRIES ABOUT COVID-19

The QSs on Covid-19 were stimulated by the program's mediator (speaker), allowing the health professional to interact with school youths, mediated virtually, but above all, loaded with learning,
facilitated by circular communication guided by a language that promoted the meeting between science and culture.

Of the 60 young people involved in the survey, 34 sent questions; three referred to the emergence of the new Coronavirus; eight spoke about the transmission; eight asked questions about the symptoms of the disease; five, on diagnosis; two, about the vaccine; and six, on disease prevention. Among these PD, we present:

*When the virus settles on metal surfaces, does it survive for an average of 12 hours? (Young 7)*
*How to identify the virus when the person does not show symptoms? (Young 16)*
*How long can the virus “live” without being in a host? (Young 18)*
*How do hospitals manage to identify this disease? (Young 21)*
*Are the symptoms of the disease the same in everyone: children and adults? (Young 37)*
*Is the Coronavirus vaccine close to being discovered? (Young 4)*
*Why should only the person infected with the virus wear the mask? (Young 44)*
*Is the information they are trying to make a vaccine against Covid-19 true? (Young 50)*
*In Brazil, are there studies to cure the new Coronavirus? (Young 55)*
*How is the diagnosis made? (Young 58)*

These questions from the youths were answered by the guest, with emphasis on the concept of the disease and its appearance. The professional also reinforced the strategies of caring for oneself, the other, the environment, as well as the ways of behaving during social isolation. He explained that prevention with body hygiene must occur through washing hands and cleaning the environment where people live.

Thus, these dialogues undertaken by young students, mediated in the virtual space of the web radio, constituted health education practices, stimulating the appropriation of knowledge from modern sciences - immunology, parasitology, microbiology - but also pointing out that other knowledge is necessary, as social behaviors and their confinements in home spaces with barriers of individual ventilatory protection through the use of face masks, in the sense of containing the spread of the pandemic.

**5 DISCUSSION**

The information with a scientific basis structured on the set of knowledge that encompasses the biological and behavioral sciences produced in social relations is a force that produces effects of change on humans for the prevention of Covid-19. The mediations carried out in the virtual space of the web radio gave place to speech for the discursive statements in diagrams composed as questions, which are the discursive engenders of the way of life presented as question-speeches.(13).
The question-speeches were mostly pointed out as inquiries about the onset of the disease, ways of prevention, transmission, symptoms, diagnosis, appearance of the vaccine and medications. However, this pandemic, with its strong morbidity and even genuine mortality, evidenced by epidemiological figures, is still a page of questions and research needs that point to the natural history of Covid-19 and its modes of social reproduction, as well as the construction of the response to its advance and its containment is yet to come\(^{(15)}\).

Thereby, disciplinary measures of mass social isolation have been one of the most concrete and effective in interrupting the chain of transmissibility of the virus, since the pharmacological ones, for the most part, treat the symptoms of the disease. The reinforcement and guarantee of these actions by the State has the potential to reduce the impact on health services, with a reduction in the epidemic peak\(^{(1)}\). Efforts to contain the virus are underway in Brazil and in the world, with measures for greater surveillance, rapid identification of suspected cases, followed by transfer and isolation of the individual, rapid diagnosis, screening and monitoring of potential contacts. However, there are uncertainties regarding transmission, virulence of pathogens, possible reservoirs, mortality rates, mortality and transmissibility\(^{(6)}\).

In this scenario, nursing accumulates fundamental historical knowledge in patient safety, in the quality of care provided to the infected and in the promotion of clinical and educational care\(^{(16)}\).

In this sense, approximately 30% of cases of infections related to health care can be preventable by simple measures, since hand hygiene with water and soap or alcohol at 70% are basic, effective and less costly actions. Evidence suggests the effectiveness of physical interventions on reducing the spread of viruses by respiratory contact, such as: the use of masks, aprons, gloves and/or eye protection; wash hands; surface disinfection, social isolation and infection control measures\(^{(17\text{-}18)}\).

These measures find resonance and connections with the predictive knowledge in the Nightingale Environmental Theory, since its contents strengthen the care practices with a focus on hygiene, social contact and cleaning of the environment as primary care in the prevention of diseases such as the Covid-19 pandemic. This knowledge is updated in the context of nursing as a social practice and with a theoretical and methodological framework, since, in the care process, it is indicated that people can, through information and qualified communication in health, produce their self-care, understanding the dynamics of nature and culture.

For Nightingale, the disease is considered a health restoration process and the role of the nursing professional is to balance the environment, in order to conserve his vital energy in order to recover the patient from the disease, by promoting an environment that stimulates health\(^{(9)}\). Nightingale
recommended that health could only be established if the sanitary conditions of the houses were ensured, such as: clean air, treated water, efficient drainage, cleaning, lighting, infection prevention, among others\textsuperscript{(12)}.

This knowledge advocated in the 19th century is updated in the context of the Covid-19 pandemic by health education practices that prioritize dialogical communication over the vertical and unidirectional hegemonic model that guides the dissemination of knowledge\textsuperscript{(15)}. In this way, educational nursing care for young schoolchildren is highlighted, as it involves communication devices connected with the cyberspace of the Internet, giving way to interactions and entertainment in the communication relations mediated in this space, replacing merely campaigning practices aimed at illness and directly acting on disease prevention\textsuperscript{(16,8)}.

In relation to the transmission of infection, in general, it occurs through the air or through contact with infected people, through droplets of saliva and phlegm, disseminated, for example, by sneezing and coughing, touching or handshaking. It is possible that contamination also occurs through contact with contaminated objects or surfaces, followed by contact with the mouth, nose or eyes\textsuperscript{(19-20)}.

It is recommended to wash your hands frequently with soap and water for at least 20 seconds, and if there is no soap and water, use an alcohol-based hand sanitizer; avoid close contact with sick people, as well as touching the eyes, nose and mouth with unwashed hands; stay home when you are sick; cover your mouth and nose with a tissue when you cough or sneeze, and throw it in the trash; and, cleaning, disinfecting objects and surfaces frequently touched\textsuperscript{(18)}.

Research on the new Coronavirus is still incipient, notably on the virus incubation period, which, based on other viruses with similar structures, helps to estimate the period in 14 days. The clinical signs and symptoms of the disease are mainly respiratory, similar to a common cold, such as: fever, cough and difficulty breathing. Fever and cough appear in more than 80% of patients, while the difficulty in breathing makes up the symptoms of 30% of sick people\textsuperscript{(17)}.

It is noteworthy that the hands serve as a deposit and vehicle for the transmission of various microorganisms, many of them are pathogenic, which can cause risks for both professionals and patients. The use of a mask is a form of prevention, but there must be “a rational use of masks” in order to ensure that there is no lack of assistance for people affected by the pandemic\textsuperscript{(17)}.

Regarding the diagnosis, it can be divided into clinical, laboratory and differential. In clinical diagnosis, the condition resembles flu-like syndrome, however, unlike what is observed in cases of influenza, fever increases and persists for more than three, up to four days. The laboratory diagnosis is
performed with molecular biology exams, which detect the viral RNA of SARS-CoV-2 in respiratory secretions\(^{(19)}\).

In relation to vaccines and medicines, it is emphasized that clinical trials are being developed in France, the United States, China, Spain and other countries, with the testing of medicines used against ebola and malaria, which already show positive results, although they are still positive, they are not conclusive\(^{(21-22)}\).

Measures to prevent transmission from person to person are adopted, worldwide, in an attempt to mitigate the spread of the virus\(^{(23)}\). This reinforces the need to disseminate preventive measures to the youth population, through virtual platforms and social networks on the Internet, as a way of guiding the prevention of the disease, during this period of social isolation. In China, in addition to preventive measures, there have been important changes in the behavior of the population, with awareness of the virus, personal protection behavior through the correct use of face masks, social distance and self-isolation when sick\(^{(16-17)}\).

Nightingale said that, in addition to the environment, they are presented as common concepts: airing, in terms of conserving the environment as pure as the outside air; heating, by providing a moderate temperature in the individual's room, avoiding its cooling; the sanitary conditions of the houses, with regard to ensuring the hygiene of the dwellings, emphasizing the use of pure water, efficient sewage network, cleaning, making reference to the prevention of infections; and lighting, involving clarity and direct sunlight\(^{(9)}\).

Updating the knowledge of Nightingale with the promotion of care mediated by communication and information as a construct of the science of nursing, it is required that the professional understand the multidimensionalities and potentialities of the use of digital devices available in the cyberspace of the Internet for the production of practices of care, called web-care\(^{(8)}\).

In Nigthingale's theory, the home environment is found as a locus of nursing care that must consider man as an agent capable of interfering in his illness; and nursing, which provided care actions supported by the theoretical basis of the ways in which health and disease are generated in constant symbiosis between society / environment in the production of human life\(^{(9)}\).

Thus, the web radio presented a clear language and concepts on the theme, which induce the formulation of propositions that are made explicit and understood by the variables cited by Nightingale in the Environmentalist Theory construct. However, nursing care for the historical construction of the modern era as a field of educational care must be rethought, considering that the contemporary context invaded by the use and development of cyberspace, with the Internet as the mainstay of these new ways.
of social life, in that the shortening of time and space enabled other ways of seeing, listening, writing, communicating interactively, constitutes, in the understanding of this study, as a privileged space to meet the health demands of young people, stimulating ways of taking care of themselves and their collectivity (8).

5.1 STUDY LIMITATIONS

Uncertainties about the treatment and research on the vaccine against the new Coronavirus still restrict the progress of writing about this pandemic, which has claimed many lives, including those of many nursing professionals that worked in the fight against the virus, a scenario of apprehension and anguish in the general population, in professionals and researchers in the area, of how to reconstitute new and healthy bonds of conviviality.

However, the nursing educational web care as a virtual mediated communication practice has shown the “viable unprecedented” of cyberspace as a potential force field in promoting the health of the youth population, digital native subjects, who compose their life repertoires with the same speed that print their interactions and use of the Internet, which is done in a mutant and elusive way.

5.2 CONTRIBUTIONS TO THE FIELD OF NURSING, HEALTH OR PUBLIC POLICIES

The implementation of the Program In Tuning with Health expanded the understanding of the problem; presented information with scientific basis in a didactic way, valuing the inquiries of young people about the disease, the prevention and the multiplication of the knowledge shared in this interaction on the web radio. Therefore, the nurse, regardless of his/her area of activity, fulfills, alongside with society, his/her commitment to strengthen public policies through the dissemination of his/her knowledge to promote the care of the self and the other, in the application of the nursing process based on scientific theories, as Nightingale did in the 19th Century, registerin, in his time, this historical landmark of nursing knowledge-power in modern times, knowing that it is updated in the context of a pandemic that threatens human life in the XXI century.
6 FINAL CONSIDERATIONS

The use of the web radio as a cyberspace-potentializer of the health education process on the Internet has become effective as a device to promote the web-nursing and health care with young schoolchildren, stimulating the real need of this public. In this perspective, it was considered that the communication about Covid-19 was relevant, since it contributed to the communication of secure information, correlating it with Florence Nightingale's Environmental Theory, and updated the knowledge of the past in the present.
REFERENCES

1. Sun P; Lu X; Xu C; Sun W; Pan B. [Understanding of Covid-19 base don current evidence]. Journal of Medical Virology. 2020. 92(6):548-521. doi: 10.1002/jmv.25722 Chinese.

2. Khan S, Siddique R, Shereen AD, Ali A, Liu J, Bai Q, et al. [The emergence of a novel coronavirus (SARS-CoV-2), their biology and therapeutic options]. 2020. J Clin Microbiol.2020. 58(4):1-22. doi: 10.1128/JCM.00187-20 Chinese.

3. The Lancet Infectious Diseases [Covid-19, uma pandemia ou não?]. The Lancet Infectious Diseases. 2020. 20(4). doi: 10.1016/S1473-3099(20)30180-8 British.

4. Heshui Shi, MD, Xiaoyu Han, Nanchuan Jiang, Yukun Cao, Osamah Alwalid, Jin Gu, et al. [Radiological findings from 81 patients with Covid-19 pneumonia in Wuhan, China: a descriptive study]. The Lancet Infectious Diseases. 2020. 20(4). doi: 10.1016/S1473-3099(20)30086-4 Chinese.

5. Shereen MA, Khan S, Kazmi A, Bashir N, Siddique R. [COV Shereen MAID-19 infection: Origin, transmission, and characteristics of human coronaviruses]. 24(1):91-98 doi: 10.1016/j.jare.2020.03.005 Chinesees.

6. Rodriguez-Morales AJ, Gallego V, Escalera-Anteza JP, Méndez CA, Zambrano LI, Franco-Paredes C, et al. [Covid-19 in Latin America: The implications of the first confirmed case in Brazil]. Travel Medicine and Infectious Disease. 2020. 33(1):1-3 doi: 10.1016/j.tmaid.2020.101613. Portuguese.

7. Secretaria de Saúde do Estado do Ceará (Sesa). Boletim Epidemiológico n. 18 – COE Covid-19 – 26/03/2020. Fortaleza: Secretaria da Saúde do Ceará; 2020 [cited 2020 Mar 13]. Disponível em: https://coronavirus.ceara.gov.br/boletins/

8. Torres RAM, et al. Promotion of webcare in nursing through a WebRadio: knowledge of schoolage youth on collective health themes. Int J Develop Res [Internet]. 2019 [cited 2020 Mar 21]; 9(2):25661-6. Disponível em: https://www.journalijdr.com/sites/default/files/issue-pdf/15243.pdf Portuguese.

9. Nightingale F. Notas sobre enfermagem: o que é e o que não é. 1. ed. São Paulo: Cortez, 1989.

10. Abreu LDP, Torres RAM, Silva MRF, Araújo AF. Web Rádio como ferramenta de diálogo em saúde coletiva no sertão: juventudes e métodos contraceptivos. SANARE [Internet]. 2018 [cited 2020 Abr 02]; 17(1):24-31. Disponível em: https://sanare.emnuvens.com.br/sanare/article/view/1219

11. Minayo MCS. O desafio do conhecimento: pesquisa qualitativa em saúde. 13. ed. São Paulo: Hucitec, 2013.

12. Medeiros AB, et al. Teoria Ambientalista de Florence Nightingale: Uma Análise Crítica. Escola Anna Nery Revista de Enfermagem [Internet]. 2015 [cited 2018 Mar 15]; 19(3):518-524. Disponível em: http://www.scielo.br/pdf/ean/v19n3/1414-8145-ean-19-03-0518.
13. Torres RAM, et al. Comunicação em saúde: uso de uma web rádio com escolares. J. Health Inform [Internet]. 2015 [cited 2018 Fev5]; 7(2):58-62. Disponível em: http://www.jhi-sbis.saude.ws/ojs-jhi/index.php/jhi-sbis/article/view/325.

15. Chan JFW, Kok KH, Wang-Kai K, Chu H, et al. [A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: A study of a family cluster]. The Lancet Infectious Diseases. 2020; 395(10223):514–523 (2020). doi:10.1016/S0140-6736(20)30154-9 Chinese.

16. Guedes VMS, Figueiredo MHJS, Apóstolo JLA, Silva ML, Oliveira PCM, Ferreira MMP. Práticas de enfermagem em cuidados de saúde primários com base num referencial de competências. Revista Recien. [Internet]. 2019 [acesso em 2020 Mar 20]; 9(27):23-32. Disponível em: https://recien.com.br/index.php/Recien/article/view/299.

17. Anderson RM, Heesterbeek H, Klinkenberg D, Hollingsworth TD. [How will country-based mitigation measures influence the course of the Covid-19 epidemic?]. The Lancet. 2020[acesso em 2020 Abr 04]; 395(10228):931–934. doi: 0.1016 / S0140-6736 (20) 30567-5 British.

18. Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, et al. [Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China]. The Lancet. 2020; 395(10223):497–506. doi: 10.1016 / S0140-6736 (20) 30183-5 Chinese.

19. Zhu N, Zhang D, Wang W, Li X, Yang B, Canção J, et al. [A Novel Coronavirus from Patients with Pneumonia in China, 2019]. N Engl J Med. 2020; 382(8):727–733. doi: 10.1056/NEJMoa2001017 Chinese.

20. Krysia WH, Marion JB. O desafio da enfermagem e da saúde na idade digital. Texto & Contexto Enferm [Internet]. 2018 [acesso em 2020 Fev 14]; 27(2):1-3. Disponível em: https://periodicos.ufsm.br/reufsm/article/view/33663/html.

21. Liu J, Cao R, Xu M, Wang X, Zhang H, Hu H, et al. Hydroxychloroquine, a less toxic derivative of chloroquine, is effective in inhibiting SARS-CoV-2 infection in vitro]. Cell Discovery. 2020; 6(16):1-4. doi: 10.1038 / s41421-020-0156-0 Chinese.

22. Wang M, Cao R, Zhang L, Yang X, Liu J, Xu M, et al. [Remdesivir and chloroquine effectively inhibit the recently emerged novel coronavirus (2019-nCoV) in vitro]. Cell Res. 2020 [acesso em 2020 Mar 14]. 30(3):269-271. doi: 10.1038 / s41422-020-0282-0 Chinese.

23. Wu P, Hao X, Lau EHY, Wong JY, Leung KSM, Wu J, et al. [Leung, Real-time tentative assessment of the epidemiological characteristics of novel coronavirus infections in Wuhan, China, as at 22 January 2020]. Euro Surveill. 2020; 25(3): 2000044. doi:10.2807/1560-7917.ES.2020.25.3.2000044 Chinese.